



Experimental Pathology Laboratories, Inc.

Methyl-Tertiary-Butyl Ether  
C00117F/00117-69

**AMENDED  
PATHOLOGY QUALITY ASSESSMENT  
REVIEW AND PWG COORDINATOR'S REPORT  
FOR  
LIFETIME CARCINOGENICITY STUDY  
OF METHYL-TERTIARY-BUTYL ETHER (MTBE)  
IN SPRAGUE-DAWLEY RATS**

**CONDUCTED AT**

**THE CANCER RESEARCH CENTER, EUROPEAN RAMAZZINI FOUNDATION  
FOR ONCOLOGY AND ENVIRONMENTAL SCIENCES, BOLOGNA, ITALY**

**CHEMICAL NO./TDMS NO.: C00117F/00117-69**

Submitted to:

National Toxicology Program  
Research Triangle Park, NC 27709

Submitted by:

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Experimental Pathology Laboratories, Inc.

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## NARRATIVE



Methyl-Tertiary-Butyl Ether  
C00117F/00117-69

**AMENDED  
PATHOLOGY QUALITY ASSESSMENT REVIEW AND  
PATHOLOGY WORKING GROUP (PWG) COORDINATOR'S REPORT  
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**CHEMICAL/TDMS NO.: C00117F/00117-69**

Quality Assessment Review: February 7 – 18, 2011

Date of the Pathology Working Group: April 4 – 8, 2011

PWG Coordinator: Robert R. Maronpot, DVM, MPH

Quality Assessment Pathologist: Jerry F. Hardisty, DVM (EPL)

Study Diagnoses: Ramazzini Institute

PWG Participants:

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## **INTRODUCTION**

This report by Experimental Pathology Laboratories, Inc. (EPL<sup>®</sup>) presents the results of the Quality Assessment (QA) Review and the Pathology Working Group (PWG) evaluation of the Methyl-Tertiary Butyl Ether (MTBE) study. The PWG reviewed glass slides subsequent to the QA Review. The MTBE study was conducted

Methyl-Tertiary-Butyl Ether  
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by the Ramazzini Institute by gavage in olive oil. The study started in 1988 and involved 360 rats.

## EXPERIMENTAL DESIGN AND METHODS

The numbers of animals used and their allocation to dose groups are shown in Table 1.

Table 1 – Study Design for Bioassay on Methyl-Tertiary-Butyl Ether (MTBE) Administered by Gavage in Olive Oil to Male and Female Sprague-Dawley Rats

Group	Dose (mg/kg/day)	No. Rat and Sex
I	1000	60 Males & 60 Females
II	250	60 Males & 60 Females
III	0	60 Males & 60 Females

Results of study findings have been published previously by the Ramazzini Institute. The publication citations are as follows:

- Belpoggi, F., Soffritti, M., Filippini, F., and Maltoni, C. (1997). Results of long-term experimental studies on the carcinogenicity of methyl tert-butyl ether. *Ann N Y Acad Sci* **837**, 77-95.
- Belpoggi, F., Soffritti, M., and Maltoni, C. (1995). Methyl-tertiary-butyl ether (MTBE)--a gasoline additive--causes testicular and lymphohaematopoietic cancers in rats. *Toxicol Ind Health* **11**, 119-149.
- Belpoggi, F., Soffritti, M., and Maltoni, C. (1998). Pathological characterization of testicular tumours and lymphomas-leukemias, and of their precursors observed in Sprague-Dawley rats exposed to methyl-tertiary-butyl ether (MTBE). *Eur. J. Oncol.* **3**: 201-206.
- Belpoggi, F., Soffritti, M., and Maltoni, C. (1999). Immunoblastic lymphomas in Sprague-Dawley rats following exposure to the gasoline oxygenated additives methyl-tertiary-butyl ether (MTBE) and ethyl-tertiary-butyl ether (ETBE): Early observations on their natural history. *Eur J Oncol* **4**: 563-572.

It was requested to conduct a pathology peer review analysis of selected tumor types and preneoplastic and hyperplastic lesions in which the specific tumor type(s)

was/were reported to be increased by chemical treatment. The peer review consisted of analysis of the Ramazzini Institute data and QA review of selected histopathology slides for the chronic lifetime study of methyl-tertiary-butyl ether (MTBE) in Sprague-Dawley rats. For the MTBE study, the tumor types of interest were hemolymphoreticular tumors in males and females and testicular tumors in males.

Although all study diagnoses (SD) reported by the Ramazzini pathologist were reviewed in each tissue, the focus of the technical approach was to achieve confirmation of the hemolymphoreticular and testicular tumors during the Quality Assessment (QA) review and included examination of the following:

- All rats for hemolymphoreticular tumors. Specific tissues examined included thymus, liver, lung, spleen and lymph nodes from male and female rats.
- Lung, nose and ear for inflammation.
- Testes from all male rats in all groups.

Slide Review Work Sheets were used to document the results of the QA review. These work sheets list, in animal number order, tissues that were examined by the QA pathologist. The study pathologist's initial diagnosis for the tissues that were reviewed. The work sheets also record the QA pathologist's comments indicating agreement with the study pathologist's diagnosis or a comment when a difference of opinion was noted.

The QA took place February 7 – 18, 2011 at the Ramazzini Institute. The number of slides examined during the QA review of the MTBE study is listed in Table 2.

Table 2. Number of Slides Reviewed During the QA Review

	Males	Females
Group	Slide Count	Slide Count
I – 1000 mg/kg	1025	1271
II – 250 mg/kg	988	1258
III – 0 mg/kg	962	1247
TOTAL	2975	3776

The Pathology Working Group (PWG) met on April 6, 2011, and examined a total of 179 slides from 74 rats in the MTBE study without knowledge of treatment group, sex (except for testicular slides), or previous diagnoses by the study or QA pathologists. The PWG Panel examined slides from:

- All rats with a previous diagnosis of lymphoma or leukemia reported by the Ramazzini pathologist or the QA pathologist.
- Testes from rats with proliferative lesions.

Slide Review Work Sheets used to document the results of the QA review are presented in Appendices A and B. These work sheets, list in animal number order, tissues that were examined by the QA pathologist from EPL. These work sheets also list the initial diagnoses for the tissues which were reviewed and the QA pathologist's agreement or difference of opinion. The QA review consisted of re-examination of thymus, liver, lung, spleen and lymph nodes for malignant lymphoma or mononuclear cell leukemia from all male and female rats in all groups. In addition, testes from all male rats were examined for proliferative or neoplastic lesions and the lungs, noses and ears were examined for inflammation. When the QA pathologist had a difference of opinion with the initial diagnosis, an alternative diagnosis was recorded on the Slide Review Work Sheets. All diagnoses of lymphoma or leukemia and proliferative lesions in the testes were included in the set of slides to be examined by the PWG. Differences of opinion for other diagnoses were not reviewed by the PWG. The "Action to be Taken" column on the Slide Review Work Sheets is left blank because no post-PWG action was required.

## RESULTS

All materials necessary for this review were readily available by the Ramazzini Institute and well organized. All slides required to be examined by the QA pathologist were present. The histologic quality of the sections was considered to be very good by



the QA pathologist with no deficiencies that interfered with the examination of the tissues present or the interpretation of histopathologic changes that were present. Neither the occasional cases with tissue autolysis nor the use of alcohol fixation presented diagnostic difficulties.

#### Quality Assessment Review

During the Quality Assessment (QA) review, some terminology was noted by the QA pathologist to be made consistent with currently accepted nomenclature and diagnostic criteria, including:

- Testicular atrophy was diagnosed as testicular degeneration by the QA pathologist to avoid duplication in terms.
- Lymphoreticular neoplasms diagnosed or confirmed during the QA review were categorized as either malignant lymphoma or mononuclear cell leukemia.
- Diagnosis of dysplasia in lymph nodes by the Ramazzini pathologist was considered to be normal or lymphoid hyperplasia.

The results of the pathology QA review generally confirmed the Ramazzini pathologist's findings for proliferative lesions of the testes (Appendix A). A few of the original diagnoses of lymphoma/leukemia were not confirmed by the QA pathologist (Appendices A and B).

#### Pathology Working Group Review

The primary focus during the PWG review was to distinguish between lymphoreticular neoplasia and non-neoplastic inflammatory or hyperplastic responses in the slides selected for review and to confirm the presence of interstitial cell hyperplasia and interstitial cell adenomas in testes. Some ancillary lesions such as mineralization in the testes were not specifically or formally voted on by the PWG Panel. For these lesions, the PWG consensus diagnosis, recorded in Appendices A and B, was



determined by the PWG Coordinator using the diagnoses previously reported by the Ramazzini and QA pathologists.

The PWG Panel reviewed 179 slides representing 74 rats. Panel members independently reviewed each slide and noted their findings and personal comments on work sheets. Following examination of a small number of specific tissues from 10 to 20 rats, the PWG Coordinator recorded consensus diagnoses for the relevant tissues for each rat. The consensus diagnosis represented the majority opinion of the PWG participants. Occasional differences of opinion among the PWG Panel were discussed and, if a consensus diagnosis was not initially achieved, the relevant slides were re-examined by each Panel member followed by further discussion until a consensus diagnosis was achieved. The most significant lesions of concern for this MTBE study involved diagnosis of lymphoma and/or leukemia, inflammatory lesions in the airways of male and female rats, and testicular interstitial cell hyperplasia and adenoma in males.

Diagnostic criteria for diagnosis of malignant lymphoma and leukemia used by the Pathology Working Group Panel followed internationally accepted guidelines (International Classification of Rodent Tumours. Part I: The Rat. 4. Hematopoietic System. IARCp Scientific Publication No. 122. 1993; <http://goreni.org/>). The diagnostic criteria for lymphoma were:

- Disruption of architecture of involved organs
- Aggressive growth with focally extensive or diffuse infiltration of affected organs
- Infiltrating lymphocytes are uniform and non-cohesive but some larger lymphocytes may be present
- Cytoplasm present as a narrow rim
- Nuclear chromatin densely clumped
- Mitotic figures are rare

To be consistent with NTP guidelines, lymphoid neoplasms were classified as malignant lymphomas and were not subclassified. Evidence of leukemic infiltration and

cell morphology characteristic of large granular lymphocyte (LGL) leukemia was diagnosed as mononuclear cell leukemia. There were rare instances of myelogenous leukemia. A diagnosis of malignant lymphoma was typically based upon examination of lung in addition to other tissues such as thymus, spleen, liver, and lymph nodes.

Inflammatory lesions in the lung consisted of infiltration by lymphoid and mononuclear cells (plasma cells and macrophages) associated with presence of neutrophils and accumulation of necrotic cellular debris in dilated and bronchiectatic airways. Inflammation in the nose consisted of neutrophils, mononuclear cells and necrotic cellular debris in the nasal air spaces. Acute and chronic cellular infiltrates accompanied by fibroplasia and hyperostosis of the surrounding soft tissue characterized inflammation of the middle and inner ear. The PWG Panel was not asked to grade severity of inflammation or other non-neoplastic lesions.

Diagnostic criteria applied for the diagnosis of testicular interstitial cell hyperplasia and adenoma were as described in Pathology of the Fischer Rat (Edited by Boorman et al., 1990. Academic Press, New York) (Boorman GA, 1990).

The PWG examined slides from 31 male rats with a Ramazzini pathologist and/or QA pathologist diagnosis of interstitial cell hyperplasia or adenoma. During tabulation of the PWG consensus for interstitial cell hyperplasia and adenoma, unilateral and bilateral lesions were combined. Results of the PWG consensus diagnoses for testicular lesions are presented in Table 3.

Table 3. Testicular Interstitial Cell Adenoma (Unilateral & Bilateral Combined) and Interstitial Cell Hyperplasia (Unilateral & Bilateral Combined)

	0 mg/kg		250 mg/kg		1000 mg/kg	
	SD	PWG	SD	PWG	SD	PWG
No. Animals per Group	60	60	60	60	60	60
Adenoma, Interstitial Cell	3	3	5	5	11	11
Hyperplasia, Interstitial Cell	4	3	7	4	8	3

SD = Ramazzini Institute Study Diagnosis

PWG = Pathology Working Group consensus

The PWG rendered opinions on presence or absence of lymphoma from all rats with a study diagnosis of lymphoma/leukemia by the Ramazzini pathologist and/or the QA pathologist. Diagnostic terminology agreed upon by the PWG for positive cases were malignant lymphoma or mononuclear cell leukemia. Results for combined malignant lymphoma and leukemia are presented in Table 4.

Diagnosis of malignant lymphoma in the lungs was usually confirmed by finding involvement in other tissues such as thymus, liver, spleen and/or lymph nodes. Malignant lymphoma confined just to the lungs was observed in only one control male and one high dose female.

Table 4. Summary Incidences of Lymphoma/Leukemia in Male and Female Rats

	0 mg/kg		250 mg/kg		1000 mg/kg	
	SD	PWG	SD	PWG	SD	PWG
MALES						
No. of Animals per Group	60	60	60	60	60	60
Lymphoma/Leukemia	8	8	7	1	6	3
FEMALES						
No. of Animals per Group	60	60	59	60	60	60
Lymphoma/Leukemia	2	0	7	1	12	4

SD = Ramazzini Institute Study Diagnosis

PWG = Pathology Working Group consensus

Lymphoma – For SD includes lymphoblastic lymphoma, lymphocytic lymphoma, lymphoimmunoblastic lymphoma. For QA pathologist and PWG, all lymphomas diagnosed as malignant lymphoma.

Leukemia – For SD includes lymphoblastic leukemia and myeloid leukemia. For QA pathologist and PWG includes myeloid leukemia and mononuclear cell leukemia.

The incidence of inflammation (including abscesses) in the lung, nose and ear reported either by the Ramazzini Pathologist, QA Pathologist or Pathology Working Group are summarized in Table 5.

Table 5. Summary Incidences of Inflammation (including abscesses) of the Lung, Nose and Ear of Male and Female Rats

	0 mg/kg		250 mg/kg		1000 mg/kg	
	SD	PWG	SD	PWG	SD	PWG
MALES						
No. of Animals per Group	60	60	60	60	60	60
Lung Inflammation	44	45	44	50	44	48
Nose Inflammation	10	34	10	31	13	30
Ear Inflammation	14	19	20	22	16	17
FEMALES						
No. of Animals per Group	60	60	59	60	60	60
Lung Inflammation	57	58	46	52	46	56
Nose Inflammation	13	34	13	24	14	28
Ear Inflammation	15	20	12	17	15	17

SD= Ramazzini Institute Study Diagnosis

PWG = Quality Assessment/Pathology Working Group consensus

## DISCUSSION

Although not voted on by the PWG Panel for each rat, inflammation was present in virtually all animals examined, especially in the lungs. This was the case regardless of the presence or absence of malignant lymphoma or mononuclear cell leukemia. The study pathologist's diagnosis of lymphoma was not confirmed in several of the instances reviewed by the PWG. In these cases, the PWG either considered the changes present in the tissues examined to be reactive lymphoid hyperplasia or to be associated with an inflammatory process and not indicative of neoplasia. The inflammation observed in the lung, nose and ear were suggestive of an infectious agent and was unlikely related to MTBE exposure. In discussion of the spectrum of changes in the tissues examined, the PWG Panel did not believe the inflammatory process was causing development of malignant lymphoma but regarded the processes as independent of each other.

Testicular interstitial cell hyperplasia and adenoma were typical of what has been described in rats (Boorman GA, 1990). The incidence of proliferative lesions in the testes was generally confirmed by the PWG review.



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### CONFLICT OF INTEREST STATEMENT

This statement is to certify that the person listed below, employed by Experimental Pathology Laboratories, Inc., participated in the QA review and Pathology Working Group (PWG) from the Lifetime Carcinogenicity Study of Methyl-Tertiary-Butyl Ether (MTBE) in Sprague-Dawley Rats conducted at the Cancer Research Center, European Ramazzini Foundation for Oncology and Environmental Sciences. He has not been involved in any aspect of the study for any organization other than NTP which conducted the study nor the generation and/or evaluation of materials or data which were reviewed prior to the receipt of materials from the study lab. Hence, his participation in the PWG poses no apparent or actual conflict of interest.

### BIBLIOGRAPHY

Boorman GA, E. S. (1990). *"Testis and Epididymis: Pathology of the Fischer Rat - Reference and Atlas"*. New York: Academic Press.

  
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Diplomate, ACVP, ABT  
PWG Coordinator

  
DATE

RRM:asc



Methyl-Tertiary-Butyl Ether  
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**REASON FOR CHANGE(S)**

Pathology Quality Assessment  
Review and PWG Coordinator's Report  
For  
Lifetime Carcinogenicity Study  
of Methyl-Tertiary Butyl Ether (MTBE)  
in Sprague-Dawley Rats

The amended report is being issued include minor editorial changes to the text of the narrative portion of the final report submitted on May 23, 2011. No changes have been made to the Slide Review Work Sheets presented in Appendices A and B.

*RR Maronpot*

ROBERT R. MARONPOT, D.V.M., M.S., M.P.H.  
Diplomate, ACVP, ABT  
PWG Coordinator

*6 Oct 2011*

DATE



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**SIGNATURE PAGE**



Experimental Pathology Laboratories, Inc.

EPL Project No. 460-500-20

PATHOLOGY WORKING GROUP (PWG) PARTICIPANTS:

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**APPENDIX A**  
**SLIDE REVIEW WORK SHEETS**  
**MALE**

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
461	72070	14	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
462	72082	14	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
462	72082 Cont'd	14	LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
463	72117	12	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - FATTY CHANGE, MARKED	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

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**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
463	72117 Cont'd	12	TESTES - DEGEN, MODERATE  TESTES, BILATERAL - ATROPHY, MODERATE  TESTES, BILATERAL - MINERALIZATION, MODERATE  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
464	72123	13	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NECROSIS, MODERATE  LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
464	72123 Cont'd	13	SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
465	72146	15	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

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**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
465	72146 Cont'd	15	TESTES, BILATERAL - ATROPHY, MODERATE  TESTES, BILATERAL - DEGEN, MODERATE  TESTES, BILATERAL - MINERALIZATION, MODERATE  TESTES, INTERSTIT CELL - HYPERPLASIA, MODERATE  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]  AGREE  AGREE  NOT PRESENT IN SECTION (23)  AGREE  AGREE	AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
466	72177	30	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	0 MG/KG	<b>Dosage</b>	0 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
466	72177 Cont'd	30	LUNG - EDEMA, MODERATE LUNG - HISTIO SARC, PRESENT LUNG - INFLAMMATION, MODERATE LIVER - HISTIO SARC, PRESENT SPLEEN - HISTIO SARC, PRESENT TESTES - NORMAL LYMPH NODE - HISTIO SARC, PRESENT LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - INFLAMMATION, MODERATE NOSE - NORMAL	AGREE AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MILD (16) AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	0 MG/KG	<b>Dosage</b>	0 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME
		<b>TMT 6</b>	

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
467	72187	22	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - LYMPHOMA LYMPH, PRESENT	LUNG - LYMPHOMA MALIGNANT (16)	LUNG, BRONCHUS: HYPERPLASIA, LYMPHOID (16)	
			LIVER - LYMPHOMA LYMPH, PRESENT	LIVER - LYMPHOMA MALIGNANT (17)	LIVER: HYPERPLASIA, LYMPHOID (17)	
			SPLEEN - LYMPHOMA LYMPH, PRESENT	SPLEEN - LYMPHOMA MALIGNANT (18)	SPLEEN: HEMA CELL PROL (18)	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE - LYMPHOMA LYMPH, PRESENT	LYMPH NODE - LYMPHOMA MALIGNANT (28)	LYMPH NODE: HYPERPLASIA, LYMPHOID (28)	
			LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
468	72208	16				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
468	72208 Cont'd	16	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - FATTY CHANGE, MARKED  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, MEDIASTINAL - INFLAMMATION, ACUTE, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
469	72235	14	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

## SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
469	72235 Cont'd	14	LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL  LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
470	72264	24	THYMUS - LYMPHOMA LYMPH, PRESENT  LUNG - LYMPHOMA LYMPH, PRESENT  LIVER - LYMPHOMA LYMPH, PRESENT  SPLEEN - LYMPHOMA LYMPH, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15)  LUNG - LYMPHOMA MALIGNANT (16)  LIVER - LYMPHOMA MALIGNANT (17)  SPLEEN - LYMPHOMA MALIGNANT (18)	NOT REVIEWED  NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
470	72264 Cont'd	24	TESTES - DEGEN, MODERATE  TESTES - LYMPHOMA LYMPH, PRESENT  LYMPH NODE - LYMPHOMA LYMPH, PRESENT  EAR - NORMAL  NOSE - NORMAL	AGREE  NOT PRESENT IN SECTION (23)  LYMPH NODE - LYMPHOMA MALIGNANT (28)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
471	72275	17	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HISTIO SARC, PRESENT  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
471	72275 Cont'd	17	EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9)	NOT REVIEWED	
472	72286	16	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9)	NOT REVIEWED	
473	72313	16				

## **SLIDE REVIEW WORKSHEET**

**Study Title** METHYL-TERTIAL-BUTYL ETHER  
**Laboratory** CRC  
**Group** 0 MG/KG  
**Sex & Species** MALE SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
474	72341	19	THYMUS - NORMAL  LUNG - EDEMA, MILD  LIVER - FATTY CHANGE, MARKED  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, DEEP CERVICAL, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - LIPOSARC, METASTATIC, PRESENT  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
475	72373	12	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
475	72373 Cont'd	12	LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
476	72392	24	THYMUS - LEUKEMIA LYMPH, PRESENT  LUNG - LEUKEMIA LYMPH, PRESENT  LIVER - LEUKEMIA LYMPH, PRESENT  SPLEEN - LEUKEMIA LYMPH, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15)[LEUKEMIC FORM IN THYMUS AND LUNG]  LUNG - LYMPHOMA MALIGNANT (15,16)[LEUKEMIC FORM IN THYMUS AND LUNG]  LIVER - LYMPHOMA MALIGNANT (17)  SPLEEN - LYMPHOMA MALIGNANT (18)	AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
476	72392 Cont'd	24	TESTES - LEUKEMIA LYMPH, PRESENT  LYMPH NODE - LEUKEMIA LYMPH, PRESENT  EAR - NORMAL  NOSE - LEUKEMIA LYMPH, PRESENT	TESTES - LYMPHOMA MALIGNANT (23)[LEUKEMIC FORM]  LYMPH NODE - LYMPHOMA MALIGNANT (28)  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9)	NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED	
477	72420	13	THYMUS - NORMAL  LUNG - NORMAL  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL	NOSE - LYMPHOMA MALIGNANT (10,11)  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
477	72420 Cont'd	13	LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
478	72446	13	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MILD (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 6

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
479	72479	16	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - ATROPHY, MODERATE  TESTES, INTERSTITIAL CELL - ADENOMA, PRESENT  LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)  AGREE  AGREE  TESTES - DEGENERATION, MARKED (23)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  NOT REVIEWED  NOT REVIEWED	
480	72506	17	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
480	72506 Cont'd	17	LUNG, BRONCHUS - INFLAMMATION, MILD LIVER - FATTY CHANGE, MARKED SPLEEN - NORMAL TESTES - NORMAL LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE, SINUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16) AGREE AGREE AGREE AGREE AGREE AGREE AGREE NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
481	72515	14	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
481	72515 Cont'd	14	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES, BILATERAL - MINERALIZATION, MODERATE  TESTES, BILATERAL, GERMINAL EPITH - ATROPHY, MODERATE  TESTES, BILATERAL, GERMINAL EPITH - DEGEN, MODERATE  TESTES, BILATERAL, INTERSTIT CELL - HYPERPLASIA, DIFFUSE, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]  AGREE  TESTES, BILATERAL, INTERSTIT CELL - HYPERPLASIA, FOCAL, MINIMAL (23)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  AGREE WITH STUDY PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
481	72515 Cont'd	14	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED	
482	72546	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (16)	NOT REVIEWED	
			LIVER - FATTY CHANGE, MARKED	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MARKED	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
482	72546 Cont'd	19	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9)	NOT REVIEWED	
483	72571	13	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES -  TESTES, INTERSTIT CELL - ADENOMA, PRESENT  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  AGREE  AGREE  AGREE  EAR - ABSCESS, MARKED (12)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  AGREE WITH STUDY PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
484	72591	14				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
484	72591	14	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
485	72618	11	THYMUS - NORMAL  LUNG - ABSCESS, MODERATE  LIVER - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
485	72618 Cont'd	11	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
486	72634	13	THYMUS - NORMAL  LUNG - NORMAL  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
486	72634 Cont'd	13	EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
487	72659	13	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - NORMAL	AGREE	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	EAR - INFLAMMATION, CHRONIC ACTIVE, MARKED (12)	NOT REVIEWED	
488	72683	15	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	0 MG/KG	<b>Dosage</b>	0 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
488	72683 Cont'd	15	LUNG - HEMANGIOMA, PRESENT LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - FATTY CHANGE, MARKED SPLEEN - NORMAL TESTES - NORMAL LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL	AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16) AGREE AGREE AGREE AGREE AGREE AGREE AGREE NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
489	72704	24	THYMUS - LEUKEMIA MYELO, PRESENT LUNG - LEUKEMIA MYELO, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15) LUNG - LYMPHOMA MALIGNANT (16)	AGREE WITH REVIEWING PATHOLOGIST AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	0 MG/KG	<b>Dosage</b>	0 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
489	72704 Cont'd	24	LIVER - LEUKEMIA MYELO, PRESENT  SPLEEN - LEUKEMIA MYELO, PRESENT  TESTES - LEUKEMIA MYELO, PRESENT  LYMPH NODE - LEUKEMIA MYELO, PRESENT  EAR - NORMAL  NOSE - LEUKEMIA MYELO, PRESENT	LIVER - LYMPHOMA MALIGNANT (17)  SPLEEN - LYMPHOMA MALIGNANT (18)  TESTES - LYMPHOMA MALIGNANT (23)  LYMPH NODE - LYMPHOMA MALIGNANT (28)  AGREE  NOSE - LYMPHOMA MALIGNANT (8,9,10,11)	AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED	
490	72721	12	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (16)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
490	72721 Cont'd	12	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE - NORMAL	AGREE  AGREE  AGREE  EAR - ABSCESS, MODERATE (12)  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
491	72752	15	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
491	72752 Cont'd	15	TESTES, GERMINAL EPITH - ATROPHY, MODERATE  TESTES, GERMINAL EPITH - DEGEN, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE - NORMAL	NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]  AGREE  AGREE  EAR - ABSCESS, MILD (12)  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
492	72765	14	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	0 MG/KG	<b>Dosage</b>	0 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
492	72765 Cont'd	14	TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE - NORMAL	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
493	72784	18	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MARKED	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
493	72784 Cont'd	18	EAR - NORMAL  NOSE - NORMAL	AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9)	NOT REVIEWED  NOT REVIEWED	
494	72824	16	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
495	72859	14		EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	

## **SLIDE REVIEW WORKSHEET**

**Study Title** METHYL-TERTIAL-BUTYL ETHER  
**Laboratory** CRC  
**Group** 0 MG/KG  
**Sex & Species** MALE SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
495	72859	14	THYMUS - NORMAL LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NECROSIS, MODERATE LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE SPLEEN - NORMAL TESTES - NORMAL LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - INFLAMMATION, MODERATE NOSE - NORMAL	AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16) AGREE NOT PRESENT IN SECTION (17) AGREE AGREE AGREE AGREE AGREE EAR - ABSCESS, MODERATE (12) NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9)	NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
496	72897	16	THYMUS - NORMAL LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - FATTY CHANGE, MARKED SPLEEN - NORMAL TESTES - DEGEN, MODERATE TESTES, BILATERAL, GERMINAL EPITH - ATROPHY, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL	AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16) AGREE AGREE AGREE NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION] AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED AGREE WITH REVIEWING PATHOLOGIST NOT REVIEWED NOT REVIEWED	
497	72906	14	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
497	72906 Cont'd	14	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES, BILATERAL - MINERALIZATION, MODERATE  TESTES, BILATERAL, GERMINAL EPITH - ATROPHY, MODERATE  TESTES, BILATERAL, GERMINAL EPITH - DEGEN, MODERATE  TESTES, BILATERAL, INTERSTIT CELL - HYPERPLASIA, DIFFUSE, MODERATE  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]  AGREE  NOT PRESENT IN SECTION (23)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  AGREE WITH STUDY PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	0 MG/KG	<b>Dosage</b>	0 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
497	72906 Cont'd	14	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9,10)	NOT REVIEWED	
498	72939	12	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  EAR - ABSCESS, MODERATE (12)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
499	72957	14	NOSE - NORMAL  THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
499	72957 Cont'd	14	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - DEGEN, MODERATE  TESTES, BILATERAL, GERMINAL EPITH - ATROPHY, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
500	72987	12	THYMUS - NORMAL  LUNG - EDEMA, MODERATE	AGREE  AGREE	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
500	72987 Cont'd	12	LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
501	73013	22	THYMUS - LYMPHOMA LYMPH, PRESENT  LUNG - LYMPHOMA LYMPH, PRESENT  LIVER - LYMPHOMA LYMPH, PRESENT  SPLEEN - LYMPHOMA LYMPH, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15)[SEVERE AUTOLYSIS]  LUNG - LYMPHOMA MALIGNANT (16)[SEVERE AUTOLYSIS]  LIVER - LYMPHOMA MALIGNANT (17)[SEVERE AUTOLYSIS]  SPLEEN - LYMPHOMA MALIGNANT (18)[SEVERE AUTOLYSIS]	NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	0 MG/KG	<b>Dosage</b>	0 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
501	73013 Cont'd	22	TESTES - AUTOLYZED	AGREE	NOT REVIEWED	
			LYMPH NODE - LYMPHOMA LYMPH, PRESENT	LYMPH NODE - LYMPHOMA MALIGNANT (28)[SEVERE AUTOLYSIS]	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MARKED (12)	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
502	73034	23	THYMUS - LYMPHOMA LYMPH, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15)	AGREE WITH REVIEWING PATHOLOGIST	
			LUNG - LYMPHOMA LYMPH, PRESENT	LUNG - LYMPHOMA MALIGNANT (16)	AGREE WITH REVIEWING PATHOLOGIST	
			LIVER - FATTY CHANGE, MARKED	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE - LYMPHOMA LYMPH, PRESENT	LYMPH NODE - LYMPHOMA MALIGNANT (28)	AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
502	73034 Cont'd	23	LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9)	NOT REVIEWED	
503	73045	15	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL, RENAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	0 MG/KG	<b>Dosage</b>	0 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
503	73045 Cont'd	15		EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
			EAR - SQUAM CEL CARC, PRESENT	EAR - PAPILLOMA (6)	NOT REVIEWED	
504	73082	15	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED	
			LIVER - FATTY CHANGE, MARKED	AGREE	NOT REVIEWED	
			LIVER - NECROSIS, MODERATE	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
504	73082 Cont'd	15	NOSE - NORMAL	AGREE	NOT REVIEWED	
505	73093	13	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - DYSPLASIA, SQUAMOUS, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (12)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
506	73124	15		EAR - ABSCESS, MARKED (12)  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED	

## **SLIDE REVIEW WORKSHEET**

**Study Title** METHYL-TERTIAL-BUTYL ETHER  
**Laboratory** CRC  
**Group** 0 MG/KG  
**Sex & Species** MALE SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
506	73124	15	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  AGREE  AGREE  AGREE  EAR - ABSCESS, MODERATE (12)  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MINIMAL (8,9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
507	73145	14	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
507	73145 Cont'd	14	LUNG - EDEMA, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL  LYMPH NODE, AXILLARY - HYPERPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  TESTES, INTERSTIT CELL - HYPERPLASIA, FOCAL, MILD (23)  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
508	73167	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
508	73167 Cont'd	19	LIVER - NORMAL SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE TESTES, BILATERAL - DEGEN, MODERATE TESTES, BILATERAL - MINERALIZATION, MODERATE TESTES, BILATERAL, GERMINAL EPITH - ATROPHY, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - ABSCESS, MODERATE (12) EAR - SQUAM CEL CARC, PRESENT NOSE, SINUS - INFLAMMATION, MODERATE	AGREE AGREE AGREE AGREE NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION] AGREE  AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
509	73186	17				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
509	73186	17	THYMUS - NORMAL LUNG - EDEMA, MODERATE LIVER - FATTY CHANGE, MARKED LIVER - NECROSIS, MODERATE LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE TESTES - NORMAL LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MARKED LYMPH NODE, INGUINAL, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL	AGREE AGREE AGREE AGREE NOT PRESENT IN SECTION (17) AGREE AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED	
510	73214	15				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 6

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
510	73214	15	THYMUS - NORMAL LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NORMAL SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE TESTES, BILATERAL - DEGEN, MODERATE TESTES, BILATERAL - MINERALIZATION, MODERATE TESTES, BILATERAL, GERMINAL EPITH - ATROPHY, MODERATE TESTES, BILATERAL, INTERSTIT CELL - HYPERPLASIA, FOCAL, MODERATE LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16) AGREE AGREE AGREE AGREE NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION] TESTES, INTERSTIT CELL - HYPERPLASIA, FOCAL, MINIMAL (23)[UNILATERAL] AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED AGREE WITH STUDY PATHOLOGIST AGREE WITH STUDY PATHOLOGIST AGREE WITH REVIEWING PATHOLOGIST AGREE WITH REVIEWING PATHOLOGIST NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
510	73214 Cont'd	15	LYMPH NODE, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED	
511	73235	13	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - ABSCESS, MODERATE	NOT PRESENT IN SECTION (15,16)	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - FATTY CHANGE, MARKED	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	0 MG/KG	<b>Dosage</b>	0 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
511	73235 Cont'd	13	LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
512	73254	19	THYMUS - NORMAL  LUNG - LYMPHOMA LYMPH, PRESENT  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE  LUNG - LYMPHOMA MALIGNANT (16)  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 6

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
512	73254 Cont'd	19	LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
513	73275	15	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MILD	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MILD (16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
513	73275 Cont'd	15	EAR - INFLAMMATION, MODERATE  NOSE, SINUS - INFLAMMATION, MODERATE	EAR - ABSCESS, MARKED (12)  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9)	NOT REVIEWED  NOT REVIEWED	
514	73292	12	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
515	73313	15				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
515	73313	15	THYMUS - NORMAL LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NORMAL SPLEEN - NORMAL TESTES - NORMAL LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - INFLAMMATION, MODERATE NOSE - NORMAL	AGREE AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16) AGREE AGREE AGREE AGREE EAR - ABSCESS, MODERATE (12) NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9)	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
516	73324	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
516	73324 Cont'd	19	LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NECROSIS, MODERATE LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE SPLEEN - NORMAL TESTES - DEGEN, MODERATE TESTES, BILATERAL, INTERSTIT CELL - ADENOMA, PRESENT LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16) AGREE LIVER, HEPATOCYTE - EOSINOPHILIC FOCUS (17) AGREE NOT PRESENT IN SECTION (23) TESTES, BILATERAL, INTERSTIT CELL - ADENOMA (23)[UNILATERAL] AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED AGREE WITH REVIEWING PATHOLOGIST TESTES, UNILATERAL,INTERSTITIAL CELL: ADENOMA (23) NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
516	73324 Cont'd	19	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8)	NOT REVIEWED	
517	73348	23	THYMUS - LYMPHOMA LYMPH, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15)	AGREE WITH REVIEWING PATHOLOGIST	
			LUNG - LYMPHOMA LYMPH, PRESENT	LUNG - LYMPHOMA MALIGNANT (16)	NOT REVIEWED	
			LIVER - LYMPHOMA LYMPH, PRESENT	LIVER - LYMPHOMA MALIGNANT (17)	AGREE WITH REVIEWING PATHOLOGIST	
			SPLEEN - LYMPHOMA LYMPH, PRESENT	SPLEEN - LYMPHOMA MALIGNANT (18)	AGREE WITH REVIEWING PATHOLOGIST	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE - LYMPHOMA LYMPH, PRESENT	LYMPH NODE - LYMPHOMA MALIGNANT (5,28)	AGREE WITH REVIEWING PATHOLOGIST	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
518	73385	13	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
518	73385 Cont'd	13	LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - FATTY CHANGE, MARKED  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
519	73404	18	THYMUS - NORMAL  LUNG - EDEMA, MODERATE	AGREE  AGREE	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
519	73404 Cont'd	18	LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - FATTY CHANGE, MARKED SPLEEN - NORMAL TESTES - NORMAL LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MARKED LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - INFLAMMATION, MODERATE NOSE - OLFACTORY NEUR, PRESENT	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16) AGREE AGREE AGREE AGREE AGREE EAR - ABSCESS, MODERATE (12) NOT PRESENT IN SECTION (11)	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
520	73411	17	THYMUS - NORMAL LUNG - ABSCESS, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
520	73411 Cont'd	17	LIVER - NORMAL SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE TESTES, BILATERAL - DEGEN, MODERATE TESTES, BILATERAL - MINERALIZATION, MODERATE TESTES, BILATERAL, GERMINAL EPITH - ATROPHY, MODERATE LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR - ABSCESS, MODERATE LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MARKED LYMPH NODE, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE AGREE AGREE AGREE NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION] AGREE NOT PRESENT IN SECTION (5) LYMPH NODE, MANDIBULAR - LYMPHOMA MALIGNANT (5) AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED AGREE WITH REVIEWING PATHOLOGIST AGREE WITH REVIEWING PATHOLOGIST NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 6

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
520	73411 Cont'd	17	EAR - NORMAL  NOSE - INFLAMMATION, MODERATE	AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
261	72068	19	THYMUS - NORMAL  LUNG - ADENOCARC, METASTATIC, PRESENT  LIVER - FATTY CHANGE, MODERATE  LIVER - FIBROSIS, MODERATE  SPLEEN - NORMAL  TESTES - INFLAMMATION, ACUTE, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16)  AGREE  AGREE  AGREE  SPLEEN - HEMATOPOIETIC CELL PROLIFERATION, MODERATE (18)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	250 MG/KG	<b>TMT</b>	4
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Dosage</b>	250 MG/KG
		<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
261	72068 Cont'd	19	LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, RENAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  EAR - ABSCESS, MODERATE (12)  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
262	72105	17	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HEPATOCLR CARC, PRESENT  SPLEEN - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  LIVER - HEPATOCELLULAR ADENOMA (17)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
262	72105 Cont'd	17	TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
263	72115	14	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HYALINIZATION, MODERATE  LIVER - INFLAMMATION, ACUTE, MILD	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  NOT PRESENT IN SECTION (17)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
263	72115 Cont'd	14	SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
264	72136	12	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
264	72136 Cont'd	12	LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9,10)	NOT REVIEWED	
265	72144	13	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16)	NOT REVIEWED	
			LIVER - DEGEN, FATTY, MARKED	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      250 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
265	72144 Cont'd	13	NOSE - NORMAL	AGREE	NOT REVIEWED	
266	72175	13	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MARKED  LIVER - DEGEN, FATTY, MARKED  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  EAR - ABSCESS, MODERATE (12)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
267	72185	15	NOSE - NORMAL  THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
267	72185 Cont'd	15	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
268	72206	12	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	250 MG/KG	<b>Dosage</b>	250 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
268	72206 Cont'd	12	LUNG, BRONCHUS - INFLAMMATION, MILD LIVER - NECROSIS, MODERATE LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE SPLEEN - NORMAL TESTES - NORMAL LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16) AGREE NOT PRESENT IN SECTION (17) AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE NOT PRESENT IN SECTION (16)	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED AGREE WITH STUDY PATHOLOGIST LUNG, BRONCHUS: HYPERPLASIA, LYMPHOID (16)	
269	72233	18	THYMUS - NORMAL	AGREE		
			LUNG - LYMPHOMA LYMPH, PRESENT	NOT PRESENT IN SECTION (16)		

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
269	72233 Cont'd	18	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY - HYPERPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16)  AGREE  AGREE  TESTES, GERMINAL EPITH - DEGENERATION, MODERATE (23)[UNILATERAL]  AGREE  AGREE  AGREE	AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
270	72262	31	THYMUS - HISTIO SARC, PRESENT	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
270	72262 Cont'd	31	LUNG - HISTIO SARC, PRESENT  LUNG - NECROSIS, MODERATE  LIVER - HISTIO SARC, PRESENT  SPLEEN - HISTIO SARC, PRESENT  TESTES - NORMAL  LYMPH NODE - HISTIO SARC, PRESENT  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (15,16)	NOT REVIEWED  NOT REVIEWED	
271	72273	16	THYMUS - NORMAL  LUNG - LYMPHOMA LYMPH, PRESENT	AGREE	AGREE WITH STUDY PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
271	72273 Cont'd	16	LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NORMAL SPLEEN - NORMAL TESTES - DEGEN, MODERATE TESTES - MINERALIZATION, MODERATE TESTES, GERMINAL EPITH - ATROPHY, MODERATE LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - INFLAMMATION, MODERATE NOSE, SINUS - INFLAMMATION, MODERATE	AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16) AGREE AGREE AGREE AGREE[UNILATERAL] AGREE NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION] AGREE EAR - ABSCESS, MODERATE (12)	AGREE WITH STUDY PATHOLOGIST AGREE WITH REVIEWING PATHOLOGIST NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
272	72301	19	THYMUS - NORMAL  LUNG - LYMPHOMA LYMPH, PRESENT  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - ATROPHY, MODERATE  TESTES - DEGEN, MODERATE  TESTES - MINERALIZATION, MODERATE  TESTES, INTERSTIT CELL - HYPERPLASIA, MODERATE  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  LUNG - LYMPHOMA MALIGNANT (15,16)  AGREE  AGREE  NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]  AGREE  AGREE  NOT PRESENT IN SECTION (23)  AGREE	NOT REVIEWED  NOT PRESENT IN SECTION (16)  LUNG: HYPERPLASIA, LYMPHOID (16)  NOT REVIEWED  NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
272	72301 Cont'd	19	LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC, MINIMAL (9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
273	72311	19	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG - INFLAMMATION, CHRONIC, MODERATE  LIVER - DEGEN, FATTY, MARKED  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (16)  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
273	72311 Cont'd	19	LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE - NORMAL	AGREE  AGREE  EAR - INFLAMMATION, CHRONIC, MODERATE (12)  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
274	72339	14	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
274	72339 Cont'd	14	LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - SQUAM CEL CARC, PRESENT  NOSE - NORMAL	AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
275	72385	16	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MILD  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MILD (15,16)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
275	72385 Cont'd	16	LYMPH NODE, AXILLARY, INGUINAL - HYPERPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - SQUAM CEL CARC, PRESENT  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
276	72401	12	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - DEGEN, FATTY, MARKED  SPLEEN - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
276	72401 Cont'd	12	TESTES - NORMAL  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
277	72418	14	THYMUS - NORMAL  LUNG - NORMAL  LIVER - DEGEN, FATTY, MARKED  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
277	72418 Cont'd	14	NOSE - NORMAL	AGREE	NOT REVIEWED	
278	72460	16	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED  EAR - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
279	72477	15	NOSE, SINUS - INFLAMMATION, MODERATE  THYMUS - NORMAL	NOSE, SINUS - INFLAMMATION, ACUTE, MINIMAL (8,9)  AGREE	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
279	72477 Cont'd	15	LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - DEGEN, FATTY, MARKED SPLEEN - NORMAL TESTES - NORMAL LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - INFLAMMATION, MODERATE	AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16) AGREE AGREE AGREE AGREE AGREE EAR - ABSCESS, MODERATE (12)	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
280	72504	15	NOSE - NORMAL THYMUS - NORMAL LUNG, BRONCHUS - INFLAMMATION, MODERATE	AGREE AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16)	NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
280	72504 Cont'd	15	LIVER - DEGEN, FATTY, MARKED  SPLEEN - NORMAL  TESTES - MINERALIZATION, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - SQUAM CEL CARC, PRESENT  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
281	72513	13	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
281	72513 Cont'd	13	TESTES - NORMAL  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE	AGREE  AGREE  EAR - ABSCESS, MODERATE (12)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
282	72563	14	NOSE, SINUS - INFLAMMATION, MODERATE  THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - ATROPHY, MODERATE  TESTES - DEGEN, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)  AGREE  AGREE  NOT PRESENT IN SECTION (23)[SAME Lesion AS DEGENERATION]  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
282	72563 Cont'd	14	LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9,10)	NOT REVIEWED	
283	72584	15	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - ATROPHY, MODERATE	NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]	NOT REVIEWED	
			TESTES - DEGEN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
283	72584 Cont'd	15	EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
284	72603	26	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES, INTERSTIT CELL - HYPERPLASIA, FOCAL, MARKED	AGREE	AGREE WITH STUDY PATHOLOGIST	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
285	72616	12	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	250 MG/KG	<b>Dosage</b>	250 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
285	72616 Cont'd	12	LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - HYPERPLASIA, MODERATE SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE TESTES - ATROPHY, MODERATE TESTES - MINERALIZATION, MODERATE LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL THYMUS - NORMAL	LUNG, BRONCHUS - INFLAMMATION, ACUTE, MARKED (16) LIVER - FATTY CHANGE, FOCAL, MODERATE (17) AGREE TESTES, BILATERAL, GERMINAL EPITH - DEGENERATION, MARKED (23) AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
286	72632	16		AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
286	72632 Cont'd	16	LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NORMAL SPLEEN - NORMAL TESTES - DEGEN, MODERATE TESTES - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16) AGREE AGREE AGREE AGREE AGREE EAR - ABSCESS, MILD (12) NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9,10)	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
287	72657	14	THYMUS - NORMAL LUNG, BRONCHUS - INFLAMMATION, MODERATE	AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
287	72657 Cont'd	14	LIVER, HEPATOCYTE - INFLAMMATION, CHRONIC, MODERATE  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE  AGREE  AGREE  EAR - ABSCESS, MODERATE (12)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
288	72681	14	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE	AGREE	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	250 MG/KG	<b>Dosage</b>	250 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
288	72681 Cont'd	14	LIVER - NORMAL  SPLEEN - NORMAL  TESTES - MINERALIZATION, MODERATE  LYMPH NODE, AXILLARY - HEMANGIOMA, PRESENT  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - DYSPLASIA, SQUAMOUS, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (12)[SECONDAYR SQUAMOUS PROLIFERATION ASSOCIATED WITH ABCESS]  EAR - ABSCESS, MODERATE (12)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
289	72702	15	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
289	72702 Cont'd	15	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16,16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MINIMAL (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
290	72719	16	THYMUS - NORMAL  LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	

## **SLIDE REVIEW WORKSHEET**

**Study Title** METHYL-TERTIAL-BUTYL ETHER  
**Laboratory** CRC  
**Group** 250 MG/KG  
**Sex & Species** MALE SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
290	72719 Cont'd	16	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HEMANGIOMA, PRESENT  LIVER - INFLAMMATION, ACUTE, MILD  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
291	72750	14	THYMUS - HYPERPLASIA, LYMPHOID, MODERATE  LUNG - EDEMA, MODERATE  LIVER - NORMAL	NOT PRESENT IN SECTION (15)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
291	72750 Cont'd	14	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - ATROPHY, MODERATE  TESTES - DEGEN, MODERATE  TESTES, INTERSTIT CELL - ADENOMA, PRESENT  <Inserted Finding>  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE	AGREE  NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  TESTES, INTERSTIT CELL: HYPERPLASIA (23)  NOT REVIEWED  NOT REVIEWED	
292	72763	14	NOSE - NORMAL  THYMUS - NORMAL  LUNG - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
292	72763 Cont'd	14	LIVER - DEGEN, FATTY, MARKED  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE  EAR - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
293	72803	26	NOSE - NORMAL  THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL	NOSE, SINUS - INFLAMMATION, ACUTE, MINIMAL (8)  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
293	72803 Cont'd	26	LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE - NORMAL	AGREE  AGREE  EAR - ABSCESS, MODERATE (7)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
294	72833	15	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED	AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
294	72833 Cont'd	15	LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
295	72857	14	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED	
			LIVER - DEGEN, FATTY, MARKED	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES, INTERSTIT CELL - HYPERPLASIA, MODERATE	AGREE	AGREE WITH STUDY PATHOLOGIST	
			LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	250 MG/KG	<b>Dosage</b>	250 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
295	72857 Cont'd	14	EAR - INFLAMMATION, MODERATE  NOSE - NORMAL	EAR - ABSCESS, MODERATE (12)  NOSE - INFLAMMATION, ACUTE, MODERATE (8,9)	NOT REVIEWED  NOT REVIEWED	
296	72895	21	THYMUS - LEUKEMIA LYMPH, PRESENT  LUNG - LEUKEMIA LYMPH, PRESENT  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - LEUKEMIA LYMPH, PRESENT  SPLEEN - LEUKEMIA LYMPH, PRESENT  TESTES - LEUKEMIA LYMPH, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15)[LEUKEMIC PRESENTATION OF MALIGNANT LYMPHOMA PRESENMT IN SEVERAL TISSUES]  LUNG - LYMPHOMA MALIGNANT (15,16)  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  LIVER - LYMPHOMA MALIGNANT (17)  SPLEEN - LYMPHOMA MALIGNANT (18)  TESTES - LYMPHOMA MALIGNANT (23)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  LIVER: LEUKEMIA MONUC (17)  SPLEEN: LEUKEMIA MONUC (18)  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
296	72895 Cont'd	21	LYMPH NODE - LEUKEMIA LYMPH, PRESENT  EAR - INFLAMMATION, MODERATE  NOSE - LEUKEMIA LYMPH, PRESENT	LYMPH NODE - LYMPHOMA MALIGNANT (28)  EAR - ABSCESS, MODERATE (12)  NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9,10)  NOSE - LYMPHOMA MALIGNANT (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
297	72920	20	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - HISTIO SARC, PRESENT  TESTES - ATROPHY, MODERATE  TESTES - DEGEN, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
297	72920 Cont'd	20	TESTES - MINERALIZATION, MODERATE  TESTES, INTERSTIT CELL - HYPERPLASIA, MODERATE  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
298	72937	18	THYMUS - NORMAL  LUNG - LYMPHOMA LYMPH, PRESENT	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16)	NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
298	72937 Cont'd	18	LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
299	72966	21	THYMUS - LYMPHOMA LYMPH, PRESENT  LUNG - LYMPHOMA LYMPH, PRESENT  LUNG - NECROSIS, MODERATE	THYMUS - LYMPHOMA MALIGNANT (15)  LUNG - LYMPHOMA MALIGNANT (16)  AGREE	NOT REVIEWED  LUNG: HYPERPLASIA, LYMPHOID (16)  LUNG, BRONCHUS: INFLAMMATION (16)	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
299	72966 Cont'd	21	LIVER - LYMPHOMA LYMPH, PRESENT  SPLEEN - LYMPHOMA LYMPH, PRESENT  TESTES - NORMAL  LYMPH NODE - LYMPHOMA LYMPH, PRESENT  EAR - NORMAL  NOSE - LYMPHOMA LYMPH, PRESENT	LIVER - LYMPHOMA MALIGNANT (17)  SPLEEN - LYMPHOMA MALIGNANT (18)  AGREE  LYMPH NODE - LYMPHOMA MALIGNANT (28)  AGREE  NOSE - LYMPHOMA MALIGNANT (8,9,10,11)	LIVER: HYPERPLASIA, LYMPHOID (17)  SPLEEN: HYPERPLASIA, LYMPHOID (18)  NOT REVIEWED  LYMPH NODE: HYPERPLASIA, LYMPHOID (28)  NOT REVIEWED  NOT REVIEWED	
300	72985	21	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LIVER - DEGEN, FATTY, MARKED  LIVER - NECROSIS, MODERATE  LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE	AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (-)[SLIDES NOT NUMBERED]	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
300	72985 Cont'd	21	SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, DEEP CERVICAL - LIPOSARC, METASTATIC, PRESENT  EAR - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE[PROBABLY MALIGNANT SCHWANNOMA]  EAR - ABSCESS, MODERATE (-)[SLIDES NOT NUMBERED]	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
301	73011	14	NOSE - NORMAL  THYMUS - NORMAL  LUNG - NORMAL  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
301	73011 Cont'd	14	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, ACUTE, MILD (9,10)	NOT REVIEWED	
302	73032	17	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - DEGEN, FATTY, MARKED  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - ATROPHY, MODERATE  TESTES - DEGEN, MODERATE  TESTES - MINERALIZATION, MODERATE  TESTES, INTERSTIT CELL - ADENOMA, PRESENT  TESTES, INTERSTIT CELL - HYPERPLASIA, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  NOT PRESENT IN SECTION (23)[SAME Lesion AS DEGENERATION]  AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (23)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
302	73032 Cont'd	17	LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9)	NOT REVIEWED	
303	73058	14	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE - NORMAL	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE - INFLAMMATION, ACUTE, MILD (9,10)	NOT REVIEWED	
304	73080	16				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
304	73080	16	THYMUS - NORMAL LUNG - EDEMA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - HEPATOCLIC CARC, PRESENT SPLEEN - NORMAL TESTES - MINERALIZATION, MODERATE LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL THYMUS - NORMAL	AGREE AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16) LIVER, HEPATOCYTE - BASOPHILIC FOCUS, MODERATE (17) AGREE AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
305	73091	14	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
305	73091 Cont'd	14	LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NORMAL SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE TESTES - TESTES, INTERSTIT CELL - ADENOMA, PRESENT LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MEDIASTINAL - PHEOCHROM MAL, METASTATIC, PRESENT EAR - NORMAL NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16) AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED AGREE WITH STUDY PATHOLOGIST AGREE WITH STUDY PATHOLOGIST NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
306	73122	13	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16)  AGREE  AGREE  AGREE  AGREE  EAR - ABSCESS, MODERATE (12)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
307	73143	14	NOSE - NORMAL  THYMUS - NORMAL  LUNG - EDEMA, MODERATE	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
307	73143 Cont'd	14	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL  LYMPH NODE, AXILLARY - HYPERPLASIA, LYMPHOID, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)  AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MINIMAL (8,9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
308	73165	23	THYMUS - NORMAL  LUNG - NORMAL  LIVER - DEGEN, FATTY, MARKED  SPLEEN - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
308	73165 Cont'd	23	TESTES, GERMINAL EPITH - ATROPHY, MODERATE	TESTES, GERMINAL EPITH - DEGENERATION, MODERATE (23)	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MODERATE (7)	NOT REVIEWED	
309	73189	13	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - DEGEN, FATTY, MARKED	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
309	73189 Cont'd	13	EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9)	NOT REVIEWED	
310	73219	24	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - NORMAL	AGREE	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE - NORMAL	AGREE	NOT REVIEWED	
			EAR - NORMAL	EAR - ABSCESS, MODERATE (7)	NOT REVIEWED	
311	73233	15	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - ABSCESS, MODERATE	LUNG, BRONCHUS - INFLAMMATION, ACUTE, MODERATE (15,16)	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
311	73233 Cont'd	15	LIVER - NECROSIS, MODERATE LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE LIVER, HEPATOCYTE - INFLAMMATION, ACUTE, MILD SPLEEN - NORMAL TESTES - ATROPHY, MODERATE TESTES - DEGEN, MODERATE TESTES - MINERALIZATION, MODERATE LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL	AGREE NOT PRESENT IN SECTION (17) AGREE AGREE NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION] AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
312	73252	20	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
312	73252 Cont'd	20	LUNG - NORMAL  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  EAR - ABSCESS, MILD (6)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
313	73287	23	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
313	73287 Cont'd	23	TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
314	73302	12	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES -  TESTES, INTERSTITIAL CELL - ADENOMA, PRESENT	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  AGREE WITH STUDY PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
314	73302 Cont'd	12	TESTES, INTERSTIT CELL - HYPERPLASIA, MODERATE  LYMPH NODE, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9)	AGREE WITH STUDY PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
315	73311	16	THYMUS - NORMAL  LUNG - LYMPHOMA LYMPH, PRESENT  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE  NOT PRESENT IN SECTION (16)  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST	
				AGREE	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
315	73311 Cont'd	16	TESTES - MINERALIZATION, MODERATE  TESTES, INTERSTIT CELL - ADENOMA, PRESENT  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE	AGREE WITH STUDY PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  NOT REVIEWED	
316	73340	22	NOSE - NORMAL  THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
316	73340 Cont'd	22	LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, DEEP CERVICAL, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
317	73363	15	THYMUS - NORMAL  LUNG - INFLAMMATION, MODERATE  LIVER - DEGEN, FATTY, MARKED  LIVER - HEMA CELL PROL, MODERATE  SPLEEN - NORMAL  TESTES - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
317	73363 Cont'd	15	LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
318	73383	17	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9)	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, INGUINAL, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 4

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
318	73383 Cont'd	17	NOSE - NORMAL	AGREE	NOT REVIEWED	
319	73402	13	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - ATROPHY, MODERATE  TESTES - MINERALIZATION, MODERATE  TESTES, INTERSTIT CELL - HYPERPLASIA, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  TESTES - DEGENERATION, MODERATE (23)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT PRESENT IN SECTION (23)  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
319	73402 Cont'd	13	NOSE - NORMAL	AGREE	NOT REVIEWED	
320	73432	14	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - DEGEN, FATTY, MARKED  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, MANDIBULAR - SQUAM CEL CARC, METASTATIC, PRESENT  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      MALE      SD RATS

TMT 4

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
320	73432 Cont'd	14	NOSE - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
61	72064	12	THYMUS - NORMAL  LUNG - NORMAL  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - MINERALIZATION, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
62	72092	11	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - DEGEN, FATTY, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (115,16)	NOT REVIEWED  NOT REVIEWED	
				AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>TMT 2</b>	<b>Dosage</b> 1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS		<b>Sacrifice</b> CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
62	72092 Cont'd	11	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL - HYPERPLASIA, LYMPHOID, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
63	72116	15	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

TMT 2

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
63	72116 Cont'd	15	LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MODERATE (-) (SLIDES NOT NUMBERED)	NOT REVIEWED	
64	72122	17	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
64	72122 Cont'd	17	LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	NOT PRESENT IN SECTION (5,6,12)	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED	
65	72145	18	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MILD (16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - HEMA CELL PROL, MODERATE	AGREE	NOT REVIEWED	
			TESTES - NORMAL	TESTES - MINERALIZATION, MILD (23)	NOT REVIEWED	
			LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
65	72145 Cont'd	18	EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
66	72176	20	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16)	AGREE WITH REVIEWING PATHOLOGIST	
			LUNG - LYMPHOMA LYMPH, PRESENT	NOT PRESENT IN SECTION (16)	AGREE WITH REVIEWING PATHOLOGIST	
			LIVER - DEGEN, FATTY, MODERATE	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - MINERALIZATION, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
66	72176 Cont'd	20	LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MILD (12)	NOT REVIEWED	
			NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED	
67	72186	16	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MILD (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

TMT 2

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
67	72186 Cont'd	16	LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
68	72207	15	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED	
			LIVER - DEGEN, FATTY, MODERATE	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
68	72207 Cont'd	15	LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
			EAR - PROLIFERATION, DIFFUSE, MODERATE	NOT PRESENT IN SECTION (12)	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8)	NOT REVIEWED	
69	72234	17	THYMUS - NORMAL	MISSING SLIDE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (16)	NOT REVIEWED	
			LIVER - DEGEN, FATTY, MODERATE	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
69	72234 Cont'd	17	LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
70	72263	21	THYMUS - LYMPHOMA LYMPH, PRESENT  LUNG - LYMPHOMA LYMPH, PRESENT  LIVER - DEGEN, FATTY, MODERATE  LIVER - NECROSIS, MODERATE  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE - LYMPHOMA LYMPH, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15)  LUNG - LYMPHOMA MALIGNANT (16)  AGREE  AGREE  AGREE  AGREE  AGREE  LYMPH NODE - LYMPHOMA MALIGNANT (28)	AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 2

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
70	72263 Cont'd	21	LYMPH NODE, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
			NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED	
71	72274	14	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MILD (16)	NOT REVIEWED	
			LIVER - DEGEN, FATTY, MARKED	AGREE	NOT REVIEWED	
			LIVER - NECROSIS, MODERATE	AGREE	NOT REVIEWED	
			LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE	NOT PRESENT IN SECTION (17)	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 2

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
71	72274 Cont'd	14	LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
72	72302	17	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9)	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 2

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
72	72302 Cont'd	17	LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
73	72312	7	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - DEGEN, FATTY, MARKED  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - ATROPHY, MODERATE  TESTES - DEGEN, MODERATE  TESTES - HYPERPLASIA, DIFFUSE, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]  AGREE  NOT PRESENT IN SECTION (23)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
73	72312 Cont'd	7	TESTES, INTERSTIT CELL - ADENOMA, PRESENT  LYMPH NODE, AXILLARY, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  MISSING SLIDE  MISSING SLIDE	AGREE WITH STUDY PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
74	72340	17	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES, GERMINAL EPITH - ATROPHY, MODERATE  TESTES, INTERSTIT CELL - ADENOMA, PRESENT	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  TESTES, GERMINAL EPITH - DEGENERATION, MODERATE (23)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
74	72340 Cont'd	17	LYMPH NODE, INGUINAL, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
75	72372	13	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - ATROPHY, MODERATE  TESTES - DEGEN, MODERATE  TESTES - MINERALIZATION, MODERATE	AGREE  AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
75	72372 Cont'd	13	LYMPH NODE, MANDIBULAR - SQUAM CEL CARC, METASTATIC, PRESENT	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9)	NOT REVIEWED	
76	72391	14	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
76	72391 Cont'd	14	EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
77	72419	15	THYMUS - NORMAL	AGREE	NOT REVIEWED	
				LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED	
			LUNG - ADENOCARC, METASTATIC, PRESENT	AGREE	NOT REVIEWED	
			LIVER - DEGEN, FATTY, MODERATE	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - ATROPHY, MODERATE	NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]	AGREE WITH REVIEWING PATHOLOGIST	
			TESTES - DEGEN, MODERATE	AGREE	AGREE WITH STUDY PATHOLOGIST	
			TESTES - HYPERPLASIA, DIFFUSE, MODERATE	NOT PRESENT IN SECTION (23)	AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
77	72419 Cont'd	15	TESTES, INTERSTIT CELL - ADENOMA, PRESENT  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (9,10)	AGREE WITH STUDY PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
78	72445	14	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - MINERALIZATION, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 2

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
78	72445 Cont'd	14	LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE  AGREE	NOT REVIEWED  NOT REVIEWED	
			EAR - SQUAM CEL CARC, PRESENT	EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
79	72478	18	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER, HEPATOCYTE - INFLAMMATION, MODERATE  SPLEEN - FIBROSIS, DIFFUSE, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  LIVER, HEPATOCYTE - DEGENERATION, CYSTIC, MODERATE (17)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
79	72478 Cont'd	18	TESTES - ATROPHY, MODERATE  TESTES, INTERSTIT CELL - ADENOMA, PRESENT  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	NOT PRESENT IN SECTION (23)  AGREE  AGREE  AGREE  AGREE	AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
80	72505	15	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - ATROPHY, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
				NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
80	72505 Cont'd	15	TESTES - DEGEN, MODERATE  TESTES - MINERALIZATION, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
81	72514	21	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
81	72514 Cont'd	21	TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC, MODERATE (8.9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
82	72545	8	THYMUS - NORMAL  LUNG - NORMAL  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL	MISSING SLIDE  MISSING SLIDE  MISSING SLIDE  MISSING SLIDE  MISSING SLIDE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
82	72545 Cont'd	8	LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE - NORMAL	AGREE  EAR - ABSCESS, MODERATE (12)  NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
83	72585	32	THYMUS - LEUKEMIA LYMPH, PRESENT  LUNG - LEUKEMIA LYMPH, PRESENT  LIVER - LEUKEMIA LYMPH, PRESENT  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE - LEUKEMIA LYMPH, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15)  LUNG - LYMPHOMA MALIGNANT (16)  LIVER - LYMPHOMA MALIGNANT (17)  SPLEEN - LYMPHOMA MALIGNANT (18)  AGREE  LYMPH NODE - LYMPHOMA MALIGNANT (28)	AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
83	72585 Cont'd	32	EAR - NORMAL  NOSE - LEUKEMIA LYMPH, PRESENT	AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9,10)  NOSE - LYMPHOMA MALIGNANT (11)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
84	72604	16	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
84	72604 Cont'd	16	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED	
85	72617	23	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - DEGEN, FATTY, MARKED  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED  EAR - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
85	72617 Cont'd	23	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED	
86	72633	15	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  EAR - ABSCESS, MODERATE (12)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
87	72658	15	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
87	72658 Cont'd	15	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE  AGREE  EAR - ABSCESS, MODERATE (12)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
88	72682	15	NOSE - NORMAL  THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
88	72682 Cont'd	15	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - SQUAM CEL CARC, PRESENT	AGREE	NOT REVIEWED	
			NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, ACUTE, MARKED (8,9,10)	NOT REVIEWED	
89	72703	12	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 2

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
89	72703 Cont'd	12	LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9,10,11)	NOT REVIEWED	
90	72720	15	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - HYPERPLASIA, DIFFUSE, MODERATE	TESTES - DEGENERATION, MODERATE (23)	NOT REVIEWED	
			TESTES - MINERALIZATION, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
90	72720 Cont'd	15	LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE - NORMAL	AGREE  AGREE  EAR - ABSCESS, MODERATE (12)  NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
91	72751	15	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 2

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
91	72751 Cont'd	15	LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED	
92	72764	14	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (16)	NOT REVIEWED	
			LIVER - DEGEN, FATTY, MARKED	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
92	72764 Cont'd	14	LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
93	72804	19	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - ATROPHY, MODERATE	NOT PRESENT IN SECTION (23)[SAME Lesion AS DEGENERATION]	AGREE WITH REVIEWING PATHOLOGIST	
			TESTES - DEGEN, MODERATE	AGREE	AGREE WITH STUDY PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
93	72804 Cont'd	19	TESTES - HYPERPLASIA, MODERATE	NOT PRESENT IN SECTION (23)	AGREE WITH REVIEWING PATHOLOGIST	
			TESTES - MINERALIZATION, MODERATE	AGREE	AGREE WITH STUDY PATHOLOGIST	
			LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
			EAR - METAPL, SQUAMOUS, MODERATE	EAR - HYPERKERATOSIS, MODERATE (12)	NOT REVIEWED	
94	72823	16	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
94	72823 Cont'd	16	LIVER - DEGEN, FATTY, MARKED  SPLEEN - NORMAL  TESTES - MINERALIZATION, MODERATE  TESTES, INTERSTIT CELL - ADENOMA, PRESENT  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
95	72858	20	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LIVER - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
95	72858 Cont'd	20	SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE - NORMAL	AGREE  AGREE  AGREE  EAR - ABSCESS, MODERATE (6,7)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
96	72896	17	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - ATROPHY, MODERATE  TESTES - DEGEN, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
96	72896 Cont'd	17	TESTES - HYPERPLASIA, MODERATE  TESTES - MINERALIZATION, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	NOT PRESENT IN SECTION (23)  AGREE  AGREE  AGREE  EAR - ABSCESS, MODERATE (12)  NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9)	TESTES, INTERSTIT CELL: ADENOMA (23)  AGREE WITH STUDY PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
97	72921	22	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LIVER - NORMAL  SPLEEN - HYPERPLASIA, LYMPHOID, MODERATE	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 2

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
97	72921 Cont'd	22	TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC ACTIVE, MARKED	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
98	72938	15	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 2

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
98	72938 Cont'd	15	LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
99	72956	17	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
99	72956 Cont'd	17	EAR - SQUAM CEL CARC, PRESENT  NOSE - NORMAL	AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MINIMAL (8)	NOT REVIEWED  NOT REVIEWED	
100	72986	25	THYMUS - LYMPHOMA LYMPH, PRESENT  LUNG - LYMPHOMA LYMPH, PRESENT  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - LYMPHOMA LYMPH, PRESENT  SPLEEN - LYMPHOMA LYMPH, PRESENT  TESTES - NORMAL  LYMPH NODE - LYMPHOMA LYMPH, PRESENT	THYMUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15)  NOT PRESENT IN SECTION (16)  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16)  LIVER - INFILTRATION CELLULAR, LYMPHOCYTE, MILD (17)  SPLEEN - HYPERPLASIA, LYMPHOID, MILD (18)  AGREE  LYMPH NODE - HYPERPLASIA, LYMPHOID, MILD (5,6,28)	AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  LIVER: HYPERPLASIA, LYMPHOID (17)  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
100	72986 Cont'd	25	EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9,10)	NOT REVIEWED  NOT REVIEWED	
101	73012	17	THYMUS - NORMAL  LUNG - NORMAL  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - MINERALIZATION, MODERATE  TESTES, BILATERAL, INTERSTIT CELL - ADENOMA, PRESENT  LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16)  MISSING SLIDE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
101	73012 Cont'd	17	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9)	NOT REVIEWED	
102	73033	16	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
102	73033 Cont'd	16	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED	
103	73044	14	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - DEGEN, FATTY, MODERATE  SPLEEN - NORMAL  TESTES - ATROPHY, MODERATE  TESTES - DEGEN, MODERATE  TESTES - HYPERPLASIA, MODERATE  TESTES - MINERALIZATION, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION]  AGREE  NOT PRESENT IN SECTION (23)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 2

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
103	73044 Cont'd	14	LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
104	75081	13	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9,10)	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			TESTES - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
104	75081 Cont'd	13	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED	
105	73092	24	THYMUS - NORMAL  LUNG - CARCINOMA, METASTATIC, PRESENT  LIVER - DEGEN, FATTY, MARKED  SPLEEN - NORMAL  TESTES - ATROPHY, MODERATE  TESTES - MINERALIZATION, MODERATE  TESTES, INTERSTIT CELL - ADENOMA, PRESENT  LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE	AGREE  AGREE  AGREE  AGREE  TESTES - DEGENERATION, MODERATE (23)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

TMT 2

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
105	73092 Cont'd	24	LYMPH NODE, DEEP CERVICAL - ADENOCARC, METASTATIC, PRESENT  LYMPH NODE, DEEP CERVICAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
106	73123	16	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
106	73123 Cont'd	16	TESTES - NORMAL  LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
107	73144	17	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - ATROPHY, MODERATE	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MILD (16)  AGREE  AGREE  TESTES - DEGENERATION, MODERATE (23)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
107	73144 Cont'd	17	TESTES - MINERALIZATION, MODERATE  TESTES, BILATERAL, INTERSTITIAL CELL - ADENOMA, PRESENT  LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE - NORMAL	AGREE  AGREE  AGREE  EAR - ABSCESS, MODERATE (12)  NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9,10)	AGREE WITH STUDY PATHOLOGIST  TESTES, INTERSTITIAL CELL: ADENOMA (23)  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
108	73166	15	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 2

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
108	73166 Cont'd	15	TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
109	73185	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE  LIVER - DEGEN, FATTY, MARKED  SPLEEN - NORMAL  TESTES - NORMAL	AGREE  AGREE  AGREE  AGREE  TESTES - DEGENERATION, MODERATE (23)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>TMT</b>	2
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Dosage</b>	1000 MG/KG
		<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
109	73185 Cont'd	19	LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
110	73213	34	THYMUS - LEUKEMIA LYMPH, PRESENT  LUNG - LEUKEMIA LYMPH, PRESENT  LIVER - LEUKEMIA LYMPH, PRESENT  SPLEEN - LEUKEMIA LYMPH, PRESENT  TESTES - LEUKEMIA LYMPH, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15)  LUNG - LYMPHOMA MALIGNANT (16)  LIVER - LYMPHOMA MALIGNANT (17)  SPLEEN - LYMPHOMA MALIGNANT (18)  TESTES - LYMPHOMA MALIGNANT (23)	NOT REVIEWED  LUNG: LEUKEMIA MONUC (16)  LIVER: LEUKEMIA MONUC (17)  SPLEEN: LEUKEMIA MONUC (18)  TESTES: LEUKEMIA MONUC (23)	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
110	73213 Cont'd	34	TESTES - MINERALIZATION, MODERATE  TESTES, INTERSTIT CELL - ADENOMA, PRESENT  LYMPH NODE - LEUKEMIA LYMPH, PRESENT  EAR - LEUKEMIA LYMPH, PRESENT  NOSE - LEUKEMIA LYMPH, PRESENT	AGREE  AGREE  LYMPH NODE - LYMPHOMA MALIGNANT (28)  EAR - LYMPHOMA MALIGNANT (12)  NOSE - LYMPHOMA MALIGNANT (8,9,10,11)	AGREE WITH STUDY PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  LYMPH NODE: LEUKEMIA MONUC (28)  NOT REVIEWED  NOT REVIEWED	
111	73234	15	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - DEGEN, FATTY, MODERATE  LIVER - NECROSIS, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
111	73234 Cont'd	15	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
112	73253	19	THYMUS - LYMPHOMA LYMPH, PRESENT  LUNG - INFLAMMATION, MODERATE  LUNG - LYMPHOMA LYMPH, PRESENT	NOT PRESENT IN SECTION (15)  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16)  NOT PRESENT IN SECTION (15,16)	AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
112	73253 Cont'd	19	LIVER - DEGEN, FATTY, MODERATE	AGREE	NOT REVIEWED	
			LIVER - NECROSIS, MODERATE	AGREE	NOT REVIEWED	
			LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			TESTES - HYPERPLASIA, MODERATE	TESTES, INTERSTIT CELL - HYPERPLASIA, FOCAL, MINIMAL (23)	AGREE WITH REVIEWING PATHOLOGIST	
			TESTES - MINERALIZATION, MODERATE	AGREE	AGREE WITH STUDY PATHOLOGIST	
			TESTES, INTERSTIT CELL - ADENOMA, PRESENT	AGREE	AGREE WITH STUDY PATHOLOGIST	
			LYMPH NODE - LYMPHOMA LYMPH, PRESENT	NOT PRESENT IN SECTION (5,6,28)	AGREE WITH REVIEWING PATHOLOGIST	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
113	73274	37	THYMUS - HISTIO SARC, PRESENT	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
113	73274 Cont'd	37		LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED	
			LUNG - HISTIO SARC, PRESENT	AGREE	NOT REVIEWED	
			LIVER - HEPATOCLR CARC, PRESENT	AGREE	NOT REVIEWED	
			LIVER - HISTIO SARC, PRESENT	AGREE	NOT REVIEWED	
			SPLEEN - HISTIO SARC, PRESENT	AGREE	NOT REVIEWED	
			TESTES - ATROPHY, MODERATE	NOT PRESENT IN SECTION (23)[SAME Lesion AS DEGENERATION]	AGREE WITH REVIEWING PATHOLOGIST	
			TESTES - DEGEN, MODERATE	AGREE	AGREE WITH STUDY PATHOLOGIST	
			TESTES - HYPERPLASIA, MODERATE	NOT PRESENT IN SECTION (23)	TESTES, INTERSTITIAL CELL: HYPERPLASIA (23)	
			TESTES - MINERALIZATION, MODERATE	AGREE	AGREE WITH STUDY PATHOLOGIST	
			LYMPH NODE - HISTIO SARC, PRESENT	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
113	73274 Cont'd	37	NOSE - HISTIO SARC, PRESENT	AGREE	NOT REVIEWED	
114	73291	15	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, LUMBAR - PHEOCHROM MAL, METASTATIC, PRESENT  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
115	73312	16		AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
115	73312	16	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)	NOT REVIEWED	
			LIVER - DEGEN, FATTY, MARKED	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			TESTES - MINERALIZATION, MODERATE	AGREE	AGREE WITH STUDY PATHOLOGIST	
			TESTES, BILATERAL, INTERSTITIAL CELL - ADENOMA, PRESENT	AGREE	AGREE WITH STUDY PATHOLOGIST	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
116	73341	15	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9,10)	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
116	73341 Cont'd	15	LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - DEGEN, FATTY, MODERATE SPLEEN - NORMAL TESTES - ATROPHY, MODERATE TESTES - DEGEN, MODERATE TESTES - MINERALIZATION, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE, SINUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16) AGREE AGREE NOT PRESENT IN SECTION (23)[SAME LESION AS DEGENERATION] AGREE AGREE AGREE AGREE AGREE NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
117	73364	15				

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
117	73364	15	THYMUS - NORMAL LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - DEGEN, FATTY, MARKED SPLEEN - NORMAL TESTES - NORMAL LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL	AGREE AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16) AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED	
118	73384	13	THYMUS - NORMAL LUNG - EDEMA, MODERATE	AGREE AGREE	NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	MALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
118	73384 Cont'd	13	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - NORMAL  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
119	73403	16	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
119	73403 Cont'd	16	TESTES - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
120	73421	21	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MILD  LIVER - NORMAL  SPLEEN - NORMAL  TESTES - MINERALIZATION, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      MALE      SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
120	73421 Cont'd	21	LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	



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**APPENDIX B**  
**SLIDE REVIEW WORK SHEETS**  
**FEMALE**

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
401	72077	19	THYMUS - NORMAL  LUNG - DYSPLASIA, LYMPHOID, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL - HYPERPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  LUNG - HYPERPLASIA, LYMPHOID, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
402	72106	21	THYMUS - LYMPHOMA LYMPH, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15)	THYMUS: INFLAMMATION (15)	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
402	72106 Cont'd	21	LUNG - INFLAMMATION, MODERATE LUNG - LYMPHOMA LYMPH, PRESENT LIVER - NORMAL SPLEEN - NORMAL LYMPH NODE - LYMPHOMA LYMPH, PRESENT LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE, SINUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16) LUNG - LYMPHOMA MALIGNANT (16) AGREE AGREE LYMPH NODE - LYMPHOMA MALIGNANT (15) AGREE AGREE NOSE, SINUS - INFLAMMATION, CHRONIC, MODERATE (8)	AGREE WITH REVIEWING PATHOLOGIST NOT PRESENT IN SECTION (16) NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
403	72131	21				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
403	72131	21	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER, BILE DUCT - PROLIFERATION, MODERATE  LIVER, HEPATOCYTE - INFLAMMATION, MODERATE  SPLEEN - NORMAL  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - ABSCESS, MODERATE  NOSE - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, ACUTE, MODERATE (16)  AGREE  LIVER, HEPATOCYTE - INFLAMMATION, CHRONIC, MODERATE (17)  AGREE  AGREE[SECONDARY TO EAR ABCESS]  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
404	72162	19	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE	AGREE  AGREE	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
404	72162 Cont'd	19	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
405	72182	19	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
405	72182 Cont'd	19	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, INGUINAL, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  EAR - ABSCESS, MODERATE  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
406	72202	19	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
				LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
406	72202 Cont'd	19	LIVER - NORMAL SPLEEN - NORMAL LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - ABSCESS, MODERATE NOSE, SINUS - INFLAMMATION, MODERATE	AGREE AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
407	72229	19	THYMUS - NORMAL LUNG - EDEMA, MODERATE	AGREE AGREE	NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
407	72229 Cont'd	19	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER, HEPATOCYTE - INFLAMMATION, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)  LIVER, HEPATOCYTE - INFLAMMATION, CHRONIC, MODERATE (17)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
408	72253	20	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	0 MG/KG	<b>Dosage</b>	0 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
408	72253 Cont'd	20	LIVER - DEGEN, FATTY, MARKED	AGREE	NOT REVIEWED	
			LIVER - NECROSIS, MODERATE	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR - SQUAM CEL CARC, METASTATIC, PRESENT	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
409	72283	21	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
409	72283 Cont'd	21	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - INFLAMMATION, ACUTE, MODERATE (12)	NOT REVIEWED	
410	72309	19	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE	LUNG, BRONCHIOLE - INFLAMMATION, CHRONIC, MODERATE (15,16)	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
410	72309 Cont'd	19	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - ABSCESS, MODERATE  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
411	72325	23	THYMUS - CYST, MILD  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
411	72325 Cont'd	23	LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  NOSE - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
412	72348	19	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HEMA CELL PROL, MILD  SPLEEN - HEMA CELL PROL, MILD  LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE  AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
412	72348 Cont'd	19	LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - SQUAM CEL CARC, PRESENT	AGREE	NOT REVIEWED	
			NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED	
413	72387	23	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER, HEPATOCYTE - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
413	72387 Cont'd	23	EAR - SQUAM CEL CARC, PRESENT  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED	
414	72413	26	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NECROSIS, MODERATE  SPLEEN - HEMA CELL PROL, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED  EAR - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16)  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
414	72413 Cont'd	26	NOSE - NORMAL	AGREE	NOT REVIEWED	
415	72430	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - HEMA CELL PROL, MILD  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - HEMA CELL PROL, MILD  EAR - SQUAM CEL CARC, PRESENT	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (15,16)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
415	72430 Cont'd	19	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED	
416	72448	23	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - SQUAM CEL CARC, METASTATIC, PRESENT	AGREE	NOT REVIEWED	
			LIVER - HEMA CELL PROL, MILD	AGREE	NOT REVIEWED	
			LIVER - NECROSIS, MODERATE	AGREE	NOT REVIEWED	
			SPLEEN - HEMA CELL PROL, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL - SQUAM CEL CARC, METASTATIC, PRESENT	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
416	72448 Cont'd	23	EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE	NOT REVIEWED  NOT REVIEWED	
417	72470	21	THYMUS - INFLAMMATION, CHRONIC, MODERATE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE  LIVER - HYPERPLASIA, FOCAL, MODERATE  SPLEEN - HEMA CELL PROL, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED	NO SECTION PRESENT (15)[ALL TISSUE PRESENT IS MEDIASTINAL LYMPH NODES]  AGREE  LIVER, HEPATOCYTE - BASOPHILIC FOCUS (17)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
417	72470 Cont'd	21	LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
418	72497	25	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MARKED	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
418	72497 Cont'd	25	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED	
419	72524	21	THYMUS - PROLIFERATION, MODERATE	NOT PRESENT IN SECTION (15)	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - ABSCESS, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
419	72524 Cont'd	21	NOSE - NORMAL	AGREE	NOT REVIEWED	
420	72541	25	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - HEMA CELL PROL, MILD  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - HEMA CELL PROL, MILD  EAR - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (15)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
420	72541 Cont'd	25	NOSE - NORMAL	AGREE	NOT REVIEWED	
421	72566	23	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - HEMA CELL PROL, MILD  LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	NO SECTION PRESENT (15)  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
422	72579	23	THYMUS - NORMAL	NO SECTION PRESENT (15)[ALL TISSUE PRESENT IS MEDIASTINAL LYMPH NODES]	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
422	72579 Cont'd	23	THYMUS - INFLAMMATION, CHRONIC, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NECROSIS, MODERATE  SPLEEN - HEMA CELL PROL, MILD  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	NO SECTION PRESENT (15)  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
423	72611	23	THYMUS - INFLAMMATION, CHRONIC, MODERATE	NO SECTION PRESENT (15)[ALL TISSUE PRESENT IS MEDIASTINAL LYMPH NODES]	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
423	72611 Cont'd	23	LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NECROSIS, MODERATE  SPLEEN - DEPLETION CELL, MODERATE  LYMPH NODE, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MARKED  EAR - NORMAL  NOSE - NORMAL  THYMUS - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
424	72639	19		AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
424	72639 Cont'd	19	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER, HEPATOCYTE - INFLAMMATION, MODERATE  SPLEEN - HEMA CELL PROL, MILD  LYMPH NODE, AXILLARY, INGUINAL - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - ABSCESS, ACUTE, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)  NOT PRESENT IN SECTION (17)  AGREE  LYMPH NODE, AXILLARY, INGUINAL - HYPERPLASIA, LYMPHOID, MODERATE (28)  AGREE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MODERATE (5,6,15)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
424	72639 Cont'd	19	NOSE - NORMAL	AGREE	NOT REVIEWED	
425	72655	21	THYMUS - INFLAMMATION, CHRONIC, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HEMA CELL PROL, MILD  LIVER - HYPERPLASIA, DIFFUSE, MODERATE  LIVER - NECROSIS, MODERATE  SPLEEN - HEMA CELL PROL, MILD  LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED	THYMUS - HYPERPLASIA, LYMPHOID, MODERATE (15)[ALL TISSUE PRESENT IS MEDIASTINAL LYMPH NODES]  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)  AGREE  LIVER, HEPATOCYTE - EOSINOPHILIC FOCUS (17)  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
425	72655 Cont'd	21	LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, MEDIASTINAL, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
426	72677	19	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG - INFLAMMATION, CHRONIC, MILD  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title** METHYL-TERTIARY-BUTYL ETHER  
**Laboratory** CRC  
**Group** 0 MG/KG  
**Sex & Species** FEMALE SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
426	72677 Cont'd	19	LYMPH NODE, MANDIBULAR - HEMA CELL PROL, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	NOT PRESENT IN SECTION (5,6)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
427	72706	19	THYMUS - CYST, MODERATE  THYMUS - INFLAMMATION, CHRONIC, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - DEPLETION CELL, MODERATE	AGREE  NOT PRESENT IN SECTION (15)  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	0 MG/KG	<b>Dosage</b>	0 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
427	72706 Cont'd	19	LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MESENTERIC - INFLAMMATION, CHRONIC ACTIVE, MARKED  EAR - NORMAL  NOSE - INFLAMMATION, MILD	AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
428	72739	21	THYMUS - INFLAMMATION, CHRONIC, MODERATE  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE	THYMUS - ATROPHY, MARKED (16)  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title** METHYL-TERTIARY-BUTYL ETHER  
**Laboratory** CRC  
**Group** 0 MG/KG  
**Sex & Species** FEMALE SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
428	72739 Cont'd	21	LIVER - HEMA CELL PROL, MILD SPLEEN - INFLAMMATION, CHRONIC, MILD LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, INGUINAL - HEMA CELL PROL, MILD LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MARKED LYMPH NODE, MANDIBULAR, MESENTERIC - INFLAMMATION, CHRONIC ACTIVE, MARKED LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - ABSCESS, MODERATE NOSE - NORMAL	AGREE SPLEEN - HEMATOPOIETIC CELL PROLIFERATION, MILD (18) AGREE NOT PRESENT IN SECTION (28) AGREE AGREE AGREE AGREE AGREE NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
429	72761	19				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
429	72761	19	THYMUS - INFLAMMATION, CHRONIC, MODERATE LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NORMAL SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC ACTIVE, MARKED LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL	AGREE AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16) AGREE AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
429	72761 Cont'd	19	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC, MILD (8,9,10)	NOT REVIEWED	
430	72805	24	THYMUS - MISSING  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - LYMPHOMA LYMPH, PRESENT  SPLEEN - LYMPHOMA LYMPH, PRESENT  LYMPH NODE - LYMPHOMA LYMPH, PRESENT  LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16)  LIVER - LYMPHOMA MALIGNANT (17)  SPLEEN - LYMPHOMA MALIGNANT (18)  LYMPH NODE - LYMPHOMA MALIGNANT (28)  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  LIVER: INFLAMMATION (17)  SPLEEN: HEMA CELL PROL (18, 18)  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
431	72827	21				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
431	72827	21	THYMUS - INFLAMMATION, CHRONIC ACTIVE, MARKED LUNG - EDEMA, MODERATE LUNG - INFLAMMATION, CHRONIC, MILD LIVER - HEMA CELL PROL, MILD SPLEEN - NORMAL LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED LYMPH NODE, MANDIBULAR - HEMA CELL PROL, MILD LYMPH NODE, MANDIBULAR, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL	AGREE AGREE AGREE AGREE AGREE AGREE NOT PRESENT IN SECTION (5,6) AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
432	72862	19				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
432	72862	19	THYMUS - INFLAMMATION, CHRONIC, MODERATE THYMUS - PROLIFERATION, MILD LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE LIVER - HYPERPLASIA, FOCAL, MODERATE SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC ACTIVE, MARKED LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED LYMPH NODE, MEDIASTINAL - HEMA CELL PROL, MILD	AGREE NOT PRESENT IN SECTION (15) LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16) LIVER - BASOPHILIC FOCUS (17) AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
432	72862 Cont'd	19	LYMPH NODE, MEDIASTINAL, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC, MILD (8,9,10)	NOT REVIEWED	
433	72881	18	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LIVER - HEMA CELL PROL, MILD	AGREE	NOT REVIEWED	
			LIVER, HEPATOCYTE - INFLAMMATION, MODERATE	LIVER, HEPATOCYTE - INFLAMMATION, CHRONIC, MILD (17)	NOT REVIEWED	
			SPLEEN - HEMA CELL PROL, MILD	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
433	72881 Cont'd	18	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9)	NOT REVIEWED	
434	72903	21	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MARKED	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
434	72903 Cont'd	21	LYMPH NODE, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  EAR - ABSCESS, MODERATE  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
435	72923	31	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - ADENOCARC, METASTATIC, PRESENT  SPLEEN - NORMAL  LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MARKED	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
435	72923 Cont'd	31	LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
436	72950	22	THYMUS - INFLAMMATION, CHRONIC, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HYPERPLASIA, NODULAR, MODERATE  LIVER - NECROSIS, MODERATE  SPLEEN - HEMA CELL PROL, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  LIVER, HEPATOCYTE - EOSINOPHILIC FOCUS (17)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
436	72950 Cont'd	22	LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  NOT PRESENT IN SECTION (28)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
437	71971	19	THYMUS - INFLAMMATION, CHRONIC, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE	AGREE	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
437	71971 Cont'd	19	LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, INGUINAL - HYPERPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
438	72997	21	THYMUS - INFLAMMATION, CHRONIC, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER, HEPATOCYTE - INFLAMMATION, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	0 MG/KG	<b>Dosage</b>	0 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
438	72997 Cont'd	21	SPLEEN - HEMA CELL PROL, MILD	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY - ABSCESS, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC, MILD (8,9,10)	NOT REVIEWED	
439	73020	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
439	73020 Cont'd	19	LIVER - NORMAL  SPLEEN - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
440	73042	21	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MILD (16)	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
440	73042 Cont'd	21	LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - ABSCESS, MODERATE	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC, MILD (8,9,10)	NOT REVIEWED	
441	73064	20	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NECROSIS, MODERATE	AGREE	NOT REVIEWED	
			SPLEEN - HEMA CELL PROL, MILD	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
441	73064 Cont'd	20	EAR - ABSCESS, MODERATE  NOSE - NORMAL	AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED  NOT REVIEWED	
442	73085	24	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NECROSIS, MODERATE  SPLEEN - NORMAL  LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16)  AGREE  SPLEEN - HEMATOPOIETIC CELL PROLIFERATION, MODERATE (18)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
443	73112	19	NOSE - NORMAL  THYMUS - NORMAL	AGREE  AGREE	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
443	73112 Cont'd	19	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
444	73146	20	THYMUS - NORMAL	NO SECTION PRESENT (15)[ALL TISSUE PRESENT IS MEDIASTINAL LYMPH NODES]	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	0 MG/KG	<b>Dosage</b>	0 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
444	73146 Cont'd	20	LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NORMAL SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL	AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
445	73169	20	THYMUS - NORMAL LUNG - INFLAMMATION, CHRONIC, MODERATE	AGREE AGREE	NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
445	73169 Cont'd	20	LIVER - NECROSIS, MODERATE  SPLEEN - DEPLETION CELL, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - ABSCESS, MODERATE  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
446	73199	21	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
446	73199 Cont'd	21	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  EAR - SQUAM CEL CARC, PRESENT  NOSE - NORMAL	AGREE  AGREE  EAR - ABSCESS, MARKED (12)[BILATERAL WITH CHRONIC ACTIVE INFLAMMATION]  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
447	73238	19	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE  LIVER - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
447	73238 Cont'd	19	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC, MILD (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
448	73260	22	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE  LIVER - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
448	73260 Cont'd	22	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, MANDIBULAR - HEMA CELL PROL, MILD  LYMPH NODE, MANDIBULAR, MEDIASTINAL, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  NOT PRESENT IN SECTION (5,6)  AGREE  EAR - ABSCESS, MODERATE (12)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
449	73280	22	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - FATTY CHANGE, MODERATE  SPLEEN - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
449	73280 Cont'd	22	LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MARKED  LYMPH NODE, MANDIBULAR - SQUAM CEL CARC, METASTATIC, PRESENT  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
450	73319	20	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
450	73319 Cont'd	20	LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
451	73346	17	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - DEPLETION CELL, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
451	73346 Cont'd	17	LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - HEMA CELL PROL, MILD  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  NOT PRESENT IN SECTION (15)  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC, MILD (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
452	73369	20	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
452	73369 Cont'd	20	LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - HEMA CELL PROL, MILD  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MARKED  EAR - ABSCESS, MODERATE  NOSE - NORMAL	AGREE  NOT PRESENT IN SECTION (5,6)  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
453	73397	18	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LIVER - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
453	73397 Cont'd	18	SPLEEN - NORMAL  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  EAR - ABSCESS, MODERATE (12)  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
454	73423	23	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER, SINUSOID - DILATATION, MODERATE  SPLEEN - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  SPLEEN - HEMATOPOIETIC CELL PROLIFERATION, MILD (18)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
454	73423 Cont'd	23	LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MARKED  LYMPH NODE, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
455	73448	20	THYMUS - CYST, MODERATE  LUNG - INFLAMMATION, CHRONIC, MODERATE  LIVER - HYPERPLASIA, NODULAR, MODERATE  SPLEEN - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)  LIVER, HEPATOCYTE - BASOPHILIC FOCUS (17)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
455	73448 Cont'd	20	LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
456	73483	19	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - INFLAMMATION, CHRONIC, MODERATE	NOT PRESENT IN SECTION (15)[NORMAL]	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - DEPLETION CELL, MODERATE	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
456	73483 Cont'd	19	LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
457	73523	19	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 5

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
457	73523 Cont'd	19	LYMPH NODE, MANDIBULAR, MEDIASTINAL, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  EAR - ABSCESS, MODERATE  NOSE - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
458	73552	21	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
458	73552 Cont'd	21	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9)	NOT REVIEWED	
459	73566	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  LYMPH NODE, AXILLARY, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - ABSCESS, MODERATE  NOSE - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
460	73604	19	THYMUS - NORMAL  LUNG - EDEMA, MODERATE	AGREE  AGREE	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      0 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 0 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 5

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
460	73604 Cont'd	19	LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NORMAL SPLEEN - DEPLETION CELL, MODERATE LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL	AGREE AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
201	72079	19	THYMUS - NORMAL LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NECROSIS, MODERATE SPLEEN - NORMAL LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, PANCREATIC - DYSPLASIA, LYMPHOID, MODERATE EAR - NORMAL NOSE - NORMAL	AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16) AGREE AGREE AGREE AGREE LYMPH NODE, MANDIBULAR, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MODERATE (5,6,15) AGREE LYMPH NODE, PANCREATIC - HYPERPLASIA, LYMPHOID, MILD (18) EAR - ABSCESS, MODERATE (12) AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
202	72108	19	THYMUS - NORMAL LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE LIVER - NORMAL SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE EAR - INFLAMMATION, ACUTE, MODERATE	AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE EAR - ABSCESS, MODERATE (12)	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
202	72108 Cont'd	19	NOSE - NORMAL	AGREE	NOT REVIEWED	
203	72138	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - DEPLETION CELL, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)  AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (28)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 3

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
203	72138 Cont'd	19	EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9)	NOT REVIEWED  NOT REVIEWED	
204	72164	14	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - CHOLANGIOMA, PRESENT  LIVER - FIBROSIS, MODERATE  LIVER, HEPATOCYTE - HYPERPLASIA, FOCAL, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL - DYSPLASIA, LYMPHOID, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  NOT PRESENT IN SECTION (17)  AGREE  LYMPH NODE, AXILLARY, INGUINAL - HYPERPLASIA, LYMPHOID, MILD (28)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
204	72164 Cont'd	14	LYMPH NODE, AXILLARY, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, MEDIASTINAL, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  MISSING SLIDE  MISSING SLIDE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
205	72190	19	THYMUS - NORMAL  LUNG - DYSPLASIA, LYMPHOID, MODERATE  LIVER - HYPERPLASIA, FOCAL, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)  LIVER - ANGiectasis, FOCAL, MILD (17)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
205	72190 Cont'd	19	LYMPH NODE, AXILLARY, INGUINAL - HYPERPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  EAR - ABSCESS, MODERATE (12)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
206	72204	29	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HYPERPLASIA, FOCAL, MODERATE  SPLEEN - HEMA CELL PROL, MILD  LYMPH NODE, AXILLARY, INGUINAL - DYSPLASIA, LYMPHOID, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  NOT PRESENT IN SECTION (17)  AGREE  LYMPH NODE, AXILLARY, INGUINAL - LYMPHOMA MALIGNANT (28(1-2))	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
206	72204 Cont'd	29	LYMPH NODE, INGUINAL, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9)	NOT REVIEWED	
207	72237	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
207	72237 Cont'd	19	LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
208	72255	21	THYMUS - INFLAMMATION, CHRONIC, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - ADENOCARC, METASTATIC, PRESENT  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 3

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
208	72255 Cont'd	21	LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
209	72285	23	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  NOT PRESENT IN SECTION (17)  AGREE  AGREE  EAR - ABSCESS, MODERATE (12)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
209	72285 Cont'd	23	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9)	NOT REVIEWED	
210	72316	20	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - ANGIECTASIS, MODERATE  LIVER - HEMA CELL PROL, MILD  SPLEEN - HEMA CELL PROL, MILD  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MESENTERIC - HEMANGIOMA, PRESENT	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
210	72316 Cont'd	20	EAR - INFLAMMATION, ACUTE, MODERATE  NOSE, SINUS - INFLAMMATION, MODERATE	EAR - ABSCESS, MARKED (12)  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (8,9,10)	NOT REVIEWED  NOT REVIEWED	
211	72327	19	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER, HEPATOCYTE - INFLAMMATION, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)  LIVER, HEPATOCYTE - INFLAMMATION, CHRONIC, MILD (17)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
211	72327 Cont'd	19	EAR - INFLAMMATION, ACUTE, MODERATE  NOSE - NORMAL	EAR - ABSCESS, MODERATE (12)  AGREE	NOT REVIEWED  NOT REVIEWED	
212	72366	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
213	72389	11	THYMUS - MISSING  LUNG - MISSING	AGREE  AGREE	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
213	72389 Cont'd	11	LIVER - NORMAL  SPLEEN - MISSING  LYMPH NODE, AXILLARY, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - ABSCESS, MODERATE  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
214	72415	21	THYMUS - NORMAL  LUNG - LYMPHOMA LYMPH, PRESENT  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)  AGREE  AGREE  AGREE	AGREE WITH STUDY PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
214	72415 Cont'd	21	LYMPH NODE, MANDIBULAR - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	LYMPH NODE, MANDIBULAR - HYPERPLASIA, LYMPHOID, MODERATE (5,6)  AGREE  EAR - ABSCESS, MODERATE (12)  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
215	72437	20	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NECROSIS, MODERATE  LIVER, BILE DUCT - PROLIFERATION, MODERATE  LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE (17)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
215	72437 Cont'd	20	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, INGUINAL, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR - DYSPLASIA, LYMPHOID, MODERATE	LYMPH NODE, MANDIBULAR - HYPERPLASIA, LYMPHOID, MODERATE (5,6)	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
216	72450	21	LUNG - DYSPLASIA, LYMPHOID, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
216	72450 Cont'd	21	LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - DYSPLASIA, LYMPHOID, MODERATE LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR - DYSPLASIA, LYMPHOID, MODERATE LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE EAR - ABSCESS, MODERATE NOSE - NORMAL	LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE (28) AGREE LYMPH NODE, MANDIBULAR - HYPERPLASIA, LYMPHOID, MILD (5,6) AGREE EAR - ABSCESS, MODERATE (12) AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
217	72472	19	THYMUS - DYSPLASIA, LYMPHOID, MODERATE THYMUS - INFLAMMATION, CHRONIC, MODERATE	NOT PRESENT IN SECTION (15)[NORMAL] NOT PRESENT IN SECTION (15)	NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
217	72472 Cont'd	19	LUNG - DYSPLASIA, LYMPHOID, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	NOT PRESENT IN SECTION (16)[NORMAL]  AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (15)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
218	72508	22	THYMUS - NORMAL  LUNG - DYSPLASIA, LYMPHOID, MODERATE	AGREE  NOT PRESENT IN SECTION (16)	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
218	72508 Cont'd	22	LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NORMAL SPLEEN - HEMA CELL PROL, MILD LYMPH NODE, AXILLARY - HYPERPLASIA, LYMPHOID, MODERATE LYMPH NODE, INGUINAL, MANDIBULAR - DYSPLASIA, LYMPHOID, MODERATE LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED EAR - NORMAL	AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
218	72508 Cont'd	22	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9)	NOT REVIEWED	
219	72832	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - LEUKEMIA LYMPH, PRESENT  SPLEEN - LEUKEMIA LYMPH, PRESENT  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MILD (15,16)  LIVER - HEMATOPOIETIC CELL PROLIFERATION, MINIMAL (17)  SPLEEN - HEMATOPOIETIC CELL PROLIFERATION, MODERATE (18)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  LIVER: INFLAMMATION (17)  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 3

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
219	72832 Cont'd	19	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED	
220	72548	20	THYMUS - INFLAMMATION, CHRONIC, MODERATE  LUNG - INFLAMMATION, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MILD (15,16)	NOT REVIEWED  NOT REVIEWED	
			LIVER, HEPATOCYTE - INFLAMMATION, MODERATE	LIVER, HEPATOCYTE - INFLAMMATION, CHRONIC, MILD (17)	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
221	72568	18	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 3

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
221	72568 Cont'd	18	LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NORMAL SPLEEN - NORMAL LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC ACTIVE, MARKED LYMPH NODE, INGUINAL, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - ABSCESS, MODERATE NOSE - NORMAL	AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED	
222	72581	20	THYMUS - INFLAMMATION, CHRONIC, MODERATE	NOT PRESENT IN SECTION (15)[NORMAL]	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
222	72581 Cont'd	20	LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER, HEPATOCYTE - HYPERPLASIA, FOCAL, MODERATE SPLEEN - NORMAL LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, INGUINAL, MANDIBULAR - DYSPLASIA, LYMPHOID, MODERATE EAR - NORMAL NOSE - NORMAL	AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16) NOT PRESENT IN SECTION (17) AGREE AGREE AGREE AGREE LYMPH NODE, INGUINAL, MANDIBULAR - HYPERPLASIA, LYMPHOID, MILD (5,6) EAR - ABSCESS, MODERATE (12) AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
223	72613	23				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
223	72613	23	THYMUS - INFLAMMATION, CHRONIC, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NORMAL SPLEEN - HEMA CELL PROL, MODERATE LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE EAR - INFLAMMATION, ACUTE, MODERATE	NOT PRESENT IN SECTION (15)[ALL TISSUE PRESENT IS MEDIASTINAL LYMPH NODES] LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16) AGREE AGREE AGREE AGREE AGREE EAR - ABSCESS, MILD (12)	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
223	72613 Cont'd	23	NOSE - NORMAL	AGREE	NOT REVIEWED	
224	72641	19	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  LYMPH NODE, AXILLARY, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	250 MG/KG	<b>TMT</b>	3
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Dosage</b>	250 MG/KG
		<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
224	72641 Cont'd	19	LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  **NOSE (NOF)	AGREE  EAR - ABSCESS, MODERATE (12)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
225	72661	24	THYMUS - HYPERPLASIA, LYMPHOID, MODERATE  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, MEDIASTINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED	NOT PRESENT IN SECTION (15)[NORMAL]  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
225	72661 Cont'd	24	LYMPH NODE, INGUINAL, PANCREATIC - HYPERPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  LYMPH NODE, MANDIBULAR - HYPERPLASIA, LYMPHOID, MILD (5,6)	NOT REVIEWED  NOT REVIEWED	
226	72687	21	THYMUS - INFLAMMATION, CHRONIC, MODERATE  LUNG - NORMAL  LIVER - NORMAL  SPLEEN - DYSPLASIA, LYMPHOID, MODERATE	AGREE  AGREE  AGREE  SPLEEN - HEMATOPOIETIC CELL PROLIFERATION, MILD (18)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
226	72687 Cont'd	21	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
227	72708	19	THYMUS - INFLAMMATION, CHRONIC, MODERATE  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE	NOT PRESENT IN SECTION (15)  AGREE	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
227	72708 Cont'd	19	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
228	72744	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
228	72744 Cont'd	19	LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR - HEMA CELL PROL, MILD	NOT PRESENT IN SECTION (5,6)	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
229	72781	39	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - INFLAMMATION, ACUTE, MODERATE	AGREE	NOT REVIEWED	
			LIVER - NECROSIS, MODERATE	AGREE	NOT REVIEWED	
			LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE	NOT PRESENT IN SECTION (-)[SLIDES NOT NUMBERED]	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
229	72781 Cont'd	39	EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
230	72807	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED	
231	72835	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
231	72835 Cont'd	19	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, INGUINAL, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
232	72864	19	THYMUS - NORMAL  LUNG - NORMAL  LIVER - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
232	72864 Cont'd	19	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, ACUTE, MODERATE  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
233	72883	11	THYMUS - INFLAMMATION, CHRONIC, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE	AGREE	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
233	72883 Cont'd	11	LIVER - HEMA CELL PROL, MILD  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
234	72909	21	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - DEPLETION CELL, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 3

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
234	72909 Cont'd	21	LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
235	72925	23	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - LYMPHOMA LYMPH, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15)	AGREE WITH REVIEWING PATHOLOGIST	
			LUNG - LYMPHOMA LYMPH, PRESENT	LUNG - LYMPHOMA MALIGNANT (16)	AGREE WITH REVIEWING PATHOLOGIST	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	AGREE WITH REVIEWING PATHOLOGIST	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 3

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
235	72925 Cont'd	23	LYMPH NODE - LYMPHOMA LYMPH, PRESENT  LYMPH NODE, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LYMPH NODE - LYMPHOMA MALIGNANT (28)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
236	72952	21	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 3

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
236	72952 Cont'd	21	LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MARKED  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
237	72978	21	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
237	72978 Cont'd	21	LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, ACUTE, MODERATE  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  EAR - ABSCESS, MODERATE (12)  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8.9.10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
238	72999	21	THYMUS - INFLAMMATION, CHRONIC, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - DEPLETION CELL, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	NOT PRESENT IN SECTION (15)[NORMAL]  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
238	72999 Cont'd	21	LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MARKED  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
239	73026	20	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - HEMA CELL PROL, MILD  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
239	73026 Cont'd	20	LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
240	73051	19	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER, HEPATOCYTE - INFLAMMATION, MODERATE  SPLEEN - HEMA CELL PROL, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16)  LIVER, HEPATOCYTE - INFLAMMATION, CHRONIC, MILD (17)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
240	73051 Cont'd	19	LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
241	73071	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - NORMAL	AGREE	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	250 MG/KG	<b>Dosage</b>	250 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
241	73071 Cont'd	19	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9)	NOT REVIEWED	
242	73087	17	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NECROSIS, MODERATE  LIVER, BILE DUCT - PROLIFERATION, MODERATE  LIVER, HEPATOCYTE - HYPERPLASIA, FOCAL, MODERATE  SPLEEN - HEMA CELL PROL, MILD  LYMPH NODE, MANDIBULAR, MEDIASTINAL, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, ACUTE, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  LIVER, BILE DUCT - PROLIFERATION, MINIMAL (17)  LIVER, HEPATOCYTE - BASOPHILIC FOCUS, FOCAL (17)  AGREE  AGREE  EAR - ABSCESS, ACUTE, MARKED (12)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
242	73087 Cont'd	17	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9,10)	NOT REVIEWED	
243	73114	25	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HEMA CELL PROL, MILD  SPLEEN - HEMA CELL PROL, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, LUMBAR, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
244	73148	22				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
244	73148	22	THYMUS - NORMAL LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE SPLEEN - HEMA CELL PROL, MILD LYMPH NODE, AXILLARY, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL	AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16) NOT PRESENT IN SECTION (17) AGREE AGREE LYMPH NODE, MANDIBULAR, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MODERATE (5,6,15) AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
244	73148 Cont'd	22	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9)	NOT REVIEWED	
245	73180	19	THYMUS - NORMAL  LUNG - NORMAL  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MILD (16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
246	73201	20	NOSE - NORMAL  THYMUS - NORMAL	AGREE  AGREE	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title** METHYL-TERTIARY-BUTYL ETHER  
**Laboratory** CRC  
**Group** 250 MG/KG  
**Sex & Species** FEMALE SD RATS

TMT 3

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
246	73201 Cont'd	20	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HEMA CELL PROL, MODERATE  SPLEEN - LYMPHOMA LYMPH, PRESENT  LYMPH NODE, INGUINAL, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MILD (15,16)  AGREE  SPLEEN - LYMPHOMA MALIGNANT (18)  AGREE  NOT PRESENT IN SECTION (15)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  SPLEEN: HEMA CELL PROL (18)  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
247	73246	22	THYMUS - NORMAL  LUNG - DYSPLASIA, LYMPHOID, MODERATE	AGREE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)	NOT REVIEWED

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
247	73246 Cont'd	22	LIVER - DEGEN, FATTY, MODERATE LIVER, HEPATOCYTE - HYPERPLASIA, FOCAL, MODERATE SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC ACTIVE, MARKED LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED EAR - NORMAL NOSE - NORMAL THYMUS - NORMAL	AGREE NOT PRESENT IN SECTION (17) AGREE AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
248	73262	21				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
248	73262 Cont'd	21	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - DEGEN, FATTY, MARKED  LIVER - HEMA CELL PROL, MILD  LIVER - NECROSIS, MODERATE  SPLEEN - DEPLETION CELL, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
249	73295	21	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
249	73295 Cont'd	21	LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	NOT PRESENT IN SECTION (17)  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
250	73321	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HEMA CELL PROL, MODERATE  SPLEEN - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
250	73321 Cont'd	19	LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
251	73353	33	THYMUS - HYPERPLASIA, LYMPHOID, MODERATE  LUNG - DYSPLASIA, MARKED  LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE  SPLEEN - HEMA CELL PROL, MILD  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC ACTIVE, MARKED	NOT PRESENT IN SECTION (-)[NORMAL] {SLIDES NOT NUMBERED}  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (-)[SLIDES NOT NUMBERED]  NOT PRESENT IN SECTION (-)[SLIDES NOT NUMBERED]  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
251	73353 Cont'd	33	LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MODERATE  EAR - ABSCESS, MODERATE  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
252	73375	21	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE  SPLEEN - NORMAL  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE (17)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 3

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
252	73375 Cont'd	21	EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED	
253	73399	23	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

## **SLIDE REVIEW WORKSHEET**

**Study Title** METHYL-TERTIAL-BUTYL ETHER  
**Laboratory** CRC  
**Group** 250 MG/KG  
**Sex & Species** FEMALE SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 3

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
255	73455	21	THYMUS - NORMAL LUNG - LYMPHOMA LYMPH, PRESENT LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE SPLEEN - FIBROSIS, MODERATE SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE LYMPH NODE, AXILLARY, INGUINAL - DYSPLASIA, LYMPHOID, MODERATE LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE LUNG - LYMPHOMA MALIGNANT (15) LIVER, HEPATOCYTE - HYPERTROPHY, MINIMAL (17) AGREE AGREE LYMPH NODE, AXILLARY, INGUINAL - LYMPHOMA MALIGNANT (28) AGREE LYMPH NODE, MANDIBULAR, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MILD (5,6,15) LYMPH NODE, MANDIBULAR, MEDIASTINAL - LYMPHOMA MALIGNANT (5,6,15)	AGREE WITH STUDY PATHOLOGIST LUNG, BRONCHUS: INFLAMMATION (15) NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	250 MG/KG	<b>Dosage</b>	250 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
255	73455 Cont'd	21	EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
256	73504	25	THYMUS - NORMAL	AGREE	AGREE WITH STUDY PATHOLOGIST	
			LUNG - LYMPHOMA LYMPH, PRESENT	LUNG - LYMPHOMA MALIGNANT (15)	NOT PRESENT IN SECTION (15)	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	AGREE WITH REVIEWING PATHOLOGIST	
			LIVER - HEMA CELL PROL, MILD	AGREE	NOT REVIEWED	
			SPLEEN - HEMA CELL PROL, MILD	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, DEEP CERVICAL - DYSPLASIA, LYMPHOID, MODERATE	LYMPH NODE, AXILLARY, DEEP CERVICAL - LYMPHOMA MALIGNANT (28)	LYMPH NODE, AXILLARY, DEEP CERVICAL: INFLAMMATION (28)	
			LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	AGREE WITH STUDY PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
256	73504 Cont'd	25	LYMPH NODE, MANDIBULAR, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LYMPH NODE, MANDIBULAR, MEDIASTINAL - LYMPHOMA MALIGNANT (5,6,15)  AGREE  AGREE	NOT PRESENT IN SECTION (5,6)  AGREE WITH STUDY PATHOLOGIST  NOT REVIEWED  NOT REVIEWED	
257	73534	21	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - ADENOCARC, METASTATIC, PRESENT  SPLEEN - FIBROSIS, MODERATE	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	250 MG/KG	<b>TMT</b>	3
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Dosage</b>	250 MG/KG
		<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
257	73534 Cont'd	21	LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - DYSPLASIA, LYMPHOID, MODERATE	LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - HYPERPLASIA, LYMPHOID, MODERATE (5,6,28)	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9)	NOT REVIEWED	
258	73554	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
258	73554 Cont'd	19	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, ACUTE, MILD (8,9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
259	73574	25	THYMUS - NORMAL  LUNG - LYMPHOMA LYMPH, PRESENT  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - FIBROSARC, METASTATIC, PRESENT  LIVER - HEMA CELL PROL, MODERATE	AGREE  LUNG - LYMPHOMA MALIGNANT (15)  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE	AGREE WITH STUDY PATHOLOGIST  NOT PRESENT IN SECTION (15)  AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
259	73574 Cont'd	25	SPLEEN - HEMA CELL PROL, MILD LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, AXILLARY, MANDIBULAR - DYSPLASIA, LYMPHOID, MODERATE LYMPH NODE, ILIAC - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL	AGREE AGREE LYMPH NODE, AXILLARY, MANDIBULAR - LYMPHOMA MALIGNANT (5,6,28) AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
260	73606	17	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      250 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 250 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 3

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
260	73606 Cont'd	17	LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LIVER - NORMAL SPLEEN - ADENOCARC, METASTATIC, PRESENT LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE EAR - INFLAMMATION, ACUTE, MODERATE NOSE - NORMAL	LUNG, BRONCHIOLE - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16) AGREE AGREE AGREE AGREE NOT PRESENT IN SECTION (12) AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
1	72078	18	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  LYMPH NODE, AXILLARY, INGUINAL - HYPERPLASIA, LYMPHOID, MODERATE (28)  AGREE  LYMPH NODE, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MILD (15)  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
2	72107	19				

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
2	72107	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)	NOT REVIEWED	
			LIVER - FATTY CHANGE, MARKED	AGREE	NOT REVIEWED	
			LIVER - NECROSIS, MODERATE	AGREE	NOT REVIEWED	
			LIVER, HEPATOCYTE - INFLAMMATION, MODERATE	NOT PRESENT IN SECTION (17)	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
3	72137	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
3	72137 Cont'd	19	LUNG - INFLAMMATION, MODERATE  LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MESENTERIC - INFLAMMATION, CHRONIC, MARKED  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)  NOT PRESENT IN SECTION (17)  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
4	72163	19	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE	AGREE  AGREE	NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
4	72163 Cont'd	19	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
5	72183	19				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
5	72183	19	THYMUS - NORMAL	AGREE	AGREE WITH STUDY PATHOLOGIST	
			LUNG - LYMPHOMA LYMPH, PRESENT	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	AGREE WITH REVIEWING PATHOLOGIST	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY - HYPERPLASIA, LYMPHOID, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, INGUINAL, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE	NOT PRESENT IN SECTION (15)	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MARKED	AGREE	NOT REVIEWED	
			EAR - NORMAL	EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
			NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
6	72203	22				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
6	72203 Cont'd	22	LUNG - EDEMA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NORMAL SPLEEN - NORMAL LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MARKED EAR - NORMAL NOSE, SINUS - INFLAMMATION, MODERATE	AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
7	72230	21	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LIVER - NECROSIS, MARKED  SPLEEN - NORMAL  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MARKED  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
8	72254	30	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
8	72254 Cont'd	30	LUNG - DYSPLASIA, LYMPHOID, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (-)[SLIDES NOT NUMBERED]  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
9	72284	27	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE	NOT PRESENT IN SECTION (-)[SLIDES NOT NUMBERED]	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
9	72284 Cont'd	27	LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NORMAL SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE EAR - INFLAMMATION, ACUTE, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (-) AGREE AGREE AGREE AGREE AGREE AGREE EAR - ABSCESS, MODERATE (-)[SLIDES NOT NUMBERED]	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
9	72284 Cont'd	27	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (-)[SLIDES NOT NUMBERED]	NOT REVIEWED	
10	72310	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HEMA CELL PROL, MILD  LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  NOT PRESENT IN SECTION (17)  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
10	72310 Cont'd	19	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED	
11	72326	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HEMA CELL PROL, MILD  LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE  SPLEEN - NORMAL  LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)  AGREE  LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE  LIVER, HEPATOCYTE - EOSINOPHILIC FOCUS (17)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
11	72326 Cont'd	19	LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  EAR - ABSCESS, MODERATE (18)  NOSE, SINUS - INFLAMMATION, CHRONIC, MILD (8)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
12	72349	19	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NECROSIS, MODERATE  LIVER, HEPATOCYTE - INFLAMMATION, MODERATE	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  LIVER, HEPATOCYTE - INFLAMMATION, CHRONIC, MODERATE (17)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
12	72349 Cont'd	19	SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MODERATE (12)	NOT REVIEWED	
13	72388	24	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - LEUKEMIA LYMPH, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15)[LEUKEMIC FORM IN THYMUS AND LUNG]	THYMUS: LEUKEMIA MONUC (15)	
			LUNG - LEUKEMIA LYMPH, PRESENT	LUNG - LYMPHOMA MALIGNANT (15,16)[LEUKEMIC FORM IN THYMUS AND LUNG]	LUNG: LEUKEMIA MONUC (16)	
			LIVER - LEUKEMIA LYMPH, PRESENT	LIVER - LYMPHOMA MALIGNANT (17)	LIVER: LEUKEMIA MONUC (17)	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
13	72388 Cont'd	24	SPLEEN - LEUKEMIA LYMPH, PRESENT  LYMPH NODE - LEUKEMIA LYMPH, PRESENT  EAR - NORMAL  NOSE - NORMAL	SPLEEN - LYMPHOMA MALIGNANT (18)  LYMPH NODE - LYMPHOMA MALIGNANT (28)  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9)	SPLEEN: LEUKEMIA MONUC (18)  LYMPH NODE: LEUKEMIA MONUC (28)  NOT REVIEWED  NOT REVIEWED	
14	72414	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, INGUINAL - HYPERPLASIA, LYMPHOID, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #**      C00117/00117-69  
**CAS #**      1634-04-4  
**Dosage**      1000 MG/KG  
**Sacrifice**      CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
14	72414 Cont'd	19	LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MARKED  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED  EAR - INFLAMMATION, MODERATE  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  EAR - ABSCESS, MODERATE (12)  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
15	72431	17	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
15	72431 Cont'd	17	LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
16	72449	19	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
		LUNG, BRONCHUS - INFLAMMATION, MODERATE		LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16)	NOT REVIEWED	
			LIVER - INFLAMMATION, CHRONIC, MODERATE	NOT PRESENT IN SECTION (17)	NOT REVIEWED	
		SPLEEN, CAPSULE - PROLIFERATION, MODERATE		AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
		LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE		AGREE	NOT REVIEWED	
					NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
16	72449 Cont'd	19	LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MARKED	AGREE	NOT REVIEWED	
			LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - INFLAMMATION, MODERATE	EAR - ABSCESS, MODERATE (18)	NOT REVIEWED	
			NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9)	NOT REVIEWED	
17	72471	21	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER, HEPATOCYTE - HYPERPLASIA, FOCAL, MODERATE	LIVER, HEPATOCYTE - BASOPHILIC FOCUS (17)	NOT REVIEWED	
			SPLEEN - DYSPLASIA, LYMPHOID, MARKED	SPLEEN, RED PULP - HYPERPLASIA, MARKED (18)[ERYTHROCYTIC]	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
17	72471 Cont'd	21	LYMPH NODE, AXILLARY - ADENOCARC, METASTATIC, PRESENT  LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
18	72498	24	THYMUS - LYMPHOMA LYMPH, PRESENT  LUNG - LYMPHOMA LYMPH, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15)  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (16)	AGREE WITH REVIEWING PATHOLOGIST  AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
18	72498 Cont'd	24	LIVER - NORMAL SPLEEN - HEMA CELL PROL, MILD SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE LYMPH NODE - LYMPHOMA LYMPH, PRESENT LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MARKED LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MARKED LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MARKED LYMPH NODE, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE EAR - INFLAMMATION, MODERATE NOSE - NORMAL	AGREE AGREE AGREE NOT PRESENT IN SECTION (5,6,28) AGREE AGREE AGREE AGREE NOT PRESENT IN SECTION (18) AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
19	75525	33	THYMUS - NORMAL  LUNG - NORMAL  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, INGUINAL - HYPERPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - PAPILLOMA, PRESENT  NOSE - NORMAL	AGREE  AGREE  AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (-)[SLIDES NOT NUMBERED]  EAR - ABSCESS, MODERATE (-)[SLIDES NOT NUMBERED]  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
20	72542	24		LYMPH NODE, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MODERATE (15)	LYM NODE MEDIA: INFLAMMATION (15)	

### SLIDE REVIEW WORKSHEET

**Study Title** METHYL-TERTIARY-BUTYL ETHER  
**Laboratory** CRC  
**Group** 1000 MG/KG  
**Sex & Species** FEMALE SD RATS

TMT 1

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
20	72542 Cont'd	24	THYMUS - LYMPHOMA LYMPH, PRESENT LUNG - LYMPHOMA LYMPH, PRESENT LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - HEMA CELL PROL, MILD LIVER - NECROSIS, MODERATE LIVER, HEPATOCYTE - INFLAMMATION, MODERATE SPLEEN - HEMA CELL PROL, MILD SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE LYMPH NODE - LYMPHOMA LYMPH, PRESENT	NO SECTION PRESENT (15)[ALL TISSUE PRESENT IS MEDIASTINAL LYMPH NODES] NOT PRESENT IN SECTION (16) AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16) AGREE AGREE AGREE AGREE AGREE NOT PRESENT IN SECTION (28)	AGREE WITH REVIEWING PATHOLOGIST AGREE WITH REVIEWING PATHOLOGIST AGREE WITH STUDY PATHOLOGIST AGREE WITH REVIEWING PATHOLOGIST NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
20	72542 Cont'd	24	LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL	AGREE AGREE LYMPH NODE, MANDIBULAR - HYPERPLASIA, LYMPHOID, MODERATE (5,6) AGREE AGREE	AGREE WITH STUDY PATHOLOGIST AGREE WITH STUDY PATHOLOGIST AGREE WITH STUDY PATHOLOGIST AGREE WITH STUDY PATHOLOGIST AGREE WITH STUDY PATHOLOGIST NOT REVIEWED NOT REVIEWED	
21	72567	23	THYMUS - INFLAMMATION, CHRONIC ACTIVE, MARKED	NOT PRESENT IN SECTION (15)	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
21	72567 Cont'd	23	LUNG - LYMPHOMA LYMPH, PRESENT	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16)	AGREE WITH REVIEWING PATHOLOGIST	
			LIVER - HEMA CELL PROL, MILD	AGREE	NOT REVIEWED	
			SPLEEN - HEMA CELL PROL, MILD	AGREE	NOT REVIEWED	
			LYMPH NODE - LYMPHOMA LYMPH, PRESENT	LYMPH NODE - HYPERPLASIA, LYMPHOID, MODERATE (28)	AGREE WITH REVIEWING PATHOLOGIST	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED	AGREE	AGREE WITH STUDY PATHOLOGIST	
			EAR - NORMAL	AGREE	NOT REVIEWED	
22	72580	23	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - CYST, MODERATE	LYMPH NODE, MEDIASTINAL - ECTASIA, MILD (15)	AGREE WITH REVIEWING PATHOLOGIST	
			THYMUS - LYMPHOMA LYMPH, PRESENT	LYMPH NODE, MEDIASTINAL - LYMPHOMA MALIGNANT (15)	THYMUS: INFLAMMATION (15)	
			LUNG - LYMPHOMA LYMPH, PRESENT	LUNG - LYMPHOMA MALIGNANT (15,16)	NOT PRESENT IN SECTION (16)	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
22	72580 Cont'd	23	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - HYPERPLASIA, LYMPHOID, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE - LYMPHOMA LYMPH, PRESENT  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR - DYSPLASIA, LYMPHOID, MODERATE  EAR - INFLAMMATION, ACUTE, MODERATE  NOSE - HEMORRHAGE, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16)  AGREE  AGREE  AGREE  LYMPH NODE - LYMPHOMA MALIGNANT (6,15)  AGREE  LYMPH NODE, MANDIBULAR - LYMPHOMA MALIGNANT (6)  EAR - ABSCESS, MODERATE (12)  AGREE	AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  LYMPH NODE: INFLAMMATION (6,15)  NOT REVIEWED  LYMPH NODE, MANDIBULAR: INFLAMMATION (6)  NOT REVIEWED  NOT REVIEWED	
23	72612	17				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
23	72612	17	THYMUS - NORMAL  LUNG - EDEMA, MODERATE  LUNG - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED  EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
24	72640	23	THYMUS - NORMAL	NO SECTION PRESENT (15)	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
24	72640 Cont'd	23	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HEMA CELL PROL, MODERATE  SPLEEN - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  SPLEEN - HEMATOPOIETIC CELL PROLIFERATION, LYMPHOID, MODERATE (18)  LYMPH NODE, MANDIBULAR, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MODERATE (5,6,15)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
25	72656	20	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
25	72656 Cont'd	20	LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16)	NOT REVIEWED	
			LIVER - LYMPHOMA LYMPH, PRESENT	LIVER - INFILTRATION CELLULAR, LYMPHOCYTE, MODERATE (17)	LIVER: INFLAMMATION (17)	
			SPLEEN - LYMPHOMA LYMPH, PRESENT	SPLEEN - HEMATOPOIETIC CELL PROLIFERATION, MODERATE (18)	AGREE WITH REVIEWING PATHOLOGIST	
			LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC ACTIVE, MARKED	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED	AGREE	NOT REVIEWED	
			LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
25	72656 Cont'd	20	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MINIMAL (10)	NOT REVIEWED	
26	72686	22	THYMUS - LYMPHOMA LYMPH, PRESENT	THYMUS - LYMPHOMA MALIGNANT (15)	AGREE WITH REVIEWING PATHOLOGIST	
			LUNG - LYMPHOMA LYMPH, PRESENT	LUNG - LYMPHOMA MALIGNANT (16)	AGREE WITH REVIEWING PATHOLOGIST	
			LIVER - LYMPHOMA LYMPH, PRESENT	LIVER - LYMPHOMA MALIGNANT (17)	NOT REVIEWED	
			SPLEEN - LYMPHOMA LYMPH, PRESENT	SPLEEN - LYMPHOMA MALIGNANT (17)	NOT REVIEWED	
			LYMPH NODE - LYMPHOMA LYMPH, PRESENT	LYMPH NODE - LYMPHOMA MALIGNANT (5,6,28)	NOT REVIEWED	
			EAR - LYMPHOMA LYMPH, PRESENT	EAR - LYMPHOMA MALIGNANT (12)	NOT REVIEWED	
			NOSE - LYMPHOMA LYMPH, PRESENT	NOSE - LYMPHOMA MALIGNANT (8,9,10)	NOT REVIEWED	
27	72707	20	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
27	72707 Cont'd	20	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HEMA CELL PROL, MILD  SPLEEN - NORMAL  LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - ABSCESS, MODERATE  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (89,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
28	72740	31	THYMUS - NORMAL	AGREE	NOT REVIEWED	

## **SLIDE REVIEW WORKSHEET**

**Study Title** METHYL-TERTIAL-BUTYL ETHER  
**Laboratory** CRC  
**Group** 1000 MG/KG  
**Sex & Species** FEMALE SD RATS

TMT 1

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
28	72740 Cont'd	31	LUNG - EDEMA, MODERATE  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE - NORMAL  EAR - ABSCESS, MODERATE  NOSE - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (-) [SLIDES NOT NUMBERED]  AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
29	72780	25	THYMUS - LYMPHOMA LYMPH, PRESENT	NOT PRESENT IN SECTION (15)	AGREE WITH REVIEWING PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
29	72780 Cont'd	25	LUNG - LYMPHOMA LYMPH, PRESENT  LIVER - DEGEN, FATTY, MODERATE  LIVER - HEMA CELL PROL, MILD  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE - LYMPHOMA LYMPH, PRESENT  LYMPH NODE, AXILLARY - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16)  AGREE  AGREE  AGREE  LYMPH NODE - HYPERPLASIA, LYMPHOID, MODERATE (5,6,28)  LYMPH NODE, AXILLARY - HYPERPLASIA, LYMPHOID, MODERATE (28)  AGREE  AGREE  AGREE	AGREE WITH REVIEWING PATHOLOGIST  NOT REVIEWED  NOT REVIEWED  AGREE WITH STUDY PATHOLOGIST  NOT PRESENT IN SECTION (5,6)  LYMPH NODE, AXILLARY: INFLAMMATION (5,6)  AGREE WITH STUDY PATHOLOGIST  AGREE WITH STUDY PATHOLOGIST  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
30	72806	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL - HEMA CELL PROL, MILD	NOT PRESENT IN SECTION (28)	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE - NORMAL	NOSE - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,)	NOT REVIEWED	
31	72834	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
31	72834 Cont'd	19	LUNG - DYSPLASIA, LYMPHOID, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, PANCREATIC - HEMA CELL PROL, MILD	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE (28)  AGREE  LYMPH NODE, MANDIBULAR - HYPERPLASIA, LYMPHOID, MILD (5,6)  AGREE  NOT PRESENT IN SECTION (18)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 1

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
31	72834 Cont'd	19	EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE	NOT REVIEWED  NOT REVIEWED	
32	72863	19	THYMUS - NORMAL  LUNG - DYSPLASIA, LYMPHOID, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)  AGREE  AGREE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE (28)  AGREE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MODERATE (5,6,15)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
32	72863 Cont'd	19	LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
			NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED	
33	72882	14	THYMUS - INFLAMMATION, CHRONIC, MARKED	NOT PRESENT IN SECTION (15)[NORMAL]	NOT REVIEWED	
			LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 1

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
33	72882 Cont'd	14	LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED	AGREE	NOT REVIEWED	
			EAR - MISSING	AGREE	NOT REVIEWED	
34	72904	21	NOSE - MISSING	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - INFLAMMATION, MARKED	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - DYSPLASIA, LYMPHOID, MODERATE	SPLEEN - HEMATOPOIETIC CELL PROLIFERATION, MODERATE (18)	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - DYSPLASIA, LYMPHOID, MODERATE	LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE (28)	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 1

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
34	72904 Cont'd	21	LYMPH NODE, MANDIBULAR, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LYMPH NODE, MANDIBULAR, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MODERATE (5,6,15)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
35	72924	22	THYMUS - HYPERPLASIA, LYMPHOID, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MARKED  LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	NOT PRESENT IN SECTION (15)[NORMAL]  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  NOT PRESENT IN SECTION (17)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 1

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
35	72924 Cont'd	22	LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, AXILLARY, MANDIBULAR - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, ACUTE, MARKED  NOSE - NORMAL	AGREE  LYMPH NODE, AXILLARY, MANDIBULAR - HYPERPLASIA, LYMPHOID, MODERATE (6,28)  AGREE  AGREE  EAR - ABSCESS, MODERATE (12)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
36	72951	19	THYMUS - NORMAL  LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
36	72951 Cont'd	19	LUNG - INFLAMMATION, CHRONIC, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, INGUINAL, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
37	72977	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
37	72977 Cont'd	19	LUNG - INFLAMMATION, CHRONIC, MARKED	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - NORMAL	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MARKED	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MARKED	AGREE	NOT REVIEWED	
			LYMPH NODE, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, PANCREATIC - HYPERPLASIA, LYMPHOID, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
37	72977 Cont'd	19	NOSE - NORMAL	AGREE	NOT REVIEWED	
38	72988	21	THYMUS - NORMAL  LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HEMA CELL PROL, MILD  SPLEEN - HEMA CELL PROL, MILD  LYMPH NODE, MANDIBULAR - HYPERPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
38	72988 Cont'd	21	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED	
39	73025	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - NORMAL  LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  **NOSE (NOF)	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC, MILD (10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
40	73043	21				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
40	73043	21	THYMUS - NORMAL LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - ANGIECTASIS, MODERATE SPLEEN - HEMA CELL PROL, MILD LYMPH NODE, AXILLARY, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - INFLAMMATION, ACUTE, MODERATE NOSE - NORMAL	AGREE AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16) AGREE AGREE AGREE AGREE AGREE AGREE NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
41	73065	19				

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
41	73065	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER - NORMAL	AGREE	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
42	73086	30	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
42	73086 Cont'd	30	LUNG - DYSPLASIA, LYMPHOID, MARKED  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, MODERATE  NOSE, SINUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (-)[SLIDES NOT NUMBERED]  AGREE  AGREE  AGREE  NOT PRESENT IN SECTION (-)[SLIDES NOT NUMBERED]  AGREE  EAR - ABSCESS, MODERATE (-)[SLIDES NOT NUMBERED]	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
43	73113	23				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
43	73113	23	THYMUS - NORMAL LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - NORMAL SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED EAR - INFLAMMATION, ACUTE, MODERATE NOSE - NORMAL	AGREE AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16) AGREE AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
44	73147	19				

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
44	73147	19	THYMUS - NORMAL	AGREE	NOT REVIEWED	
			LUNG - EDEMA, MODERATE	AGREE	NOT REVIEWED	
			LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	NOT REVIEWED	
			LIVER, HEPATOCYTE - HYPERPLASIA, FOCAL, MODERATE	LIVER, HEPATOCYTE - BASOPHILIC FOCUS (17)	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED	AGREE	NOT REVIEWED	
			LYMPH NODE, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	
45	73170	21	NOSE - NORMAL	AGREE	NOT REVIEWED	
			THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
45	73170 Cont'd	21	LUNG, BRONCHUS - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (16)	NOT REVIEWED	
			LIVER - HEMA CELL PROL, MILD	AGREE	NOT REVIEWED	
			LIVER - NECROSIS, MODERATE	AGREE	NOT REVIEWED	
			LIVER, BILE DUCT - PROLIFERATION, MODERATE	LIVER, BILE DUCT - PROLIFERATION, MINIMAL (17)	NOT REVIEWED	
			LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE	LIVER, HEPATOCYTE - HYPERTROPHY, MILD (17)	NOT REVIEWED	
			SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
45	73170 Cont'd	21	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, CHRONIC, MINIMAL (10)	NOT REVIEWED	
46	73200	21	THYMUS - NORMAL  LUNG - DYSPLASIA, LYMPHOID, MODERATE  LIVER - DEGEN, FATTY, MODERATE  LIVER, BILE DUCT - PROLIFERATION, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, INGUINAL, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title** METHYL-TERTIARY-BUTYL ETHER  
**Laboratory** CRC  
**Group** 1000 MG/KG  
**Sex & Species** FEMALE SD RATS

TMT 1

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
46	73200 Cont'd	21	LYMPH NODE, MANDIBULAR, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE  EAR - NORMAL  NOSE - NORMAL	NOT PRESENT IN SECTION (5,6,15)  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
47	73245	19	THYMUS - NORMAL  LUNG - INFLAMMATION, CHRONIC, MODERATE  LIVER, HEPATOCYTE - HYPERPLASIA, FOCAL, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (15,16)  NOT PRESENT IN SECTION (17)  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
48	73261	19	THYMUS - NORMAL LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - HEMA CELL PROL, MILD LIVER - HYPERPLASIA, DIFFUSE, MODERATE SPLEEN - NORMAL LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE - NORMAL	AGREE AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16) AGREE LIVER, HEPATOCYTE - HYPERTROPHY, MILD (17) AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED	
49	73288	21				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
49	73288	21	THYMUS - NORMAL LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER, HEPATOCYTE - INFLAMMATION, MODERATE SPLEEN - HEMA CELL PROL, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE EAR - NORMAL NOSE, SINUS - INFLAMMATION, MODERATE	AGREE AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MARKED (15,16) LIVER, HEPATOCYTE - INFLAMMATION, CHRONIC, MILD (17) AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
50	73320	21	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
50	73320 Cont'd	21	LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER, HEPATOCYTE - HYPERPLASIA, FOCAL, MODERATE  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY, INGUINAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  NOT PRESENT IN SECTION (17)  AGREE  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
51	73352	23	THYMUS - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
51	73352 Cont'd	23	LUNG, BRONCHIOLE - HYPERPLASIA, MODERATE LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER, HEPATOCYTE - HYPERPLASIA, FOCAL, MODERATE SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, DEEP CERVICAL, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED EAR - NORMAL	AGREE AGREE NOT PRESENT IN SECTION (17) AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
51	73352 Cont'd	23	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED	
52	73374	21	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NECROSIS, MODERATE  LIVER, HEPATOCYTE - HYPERPLASIA, DIFFUSE, MODERATE  SPLEEN - NORMAL  LYMPH NODE, AXILLARY, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  LIVER, HEPATOCYTE - HYPERTROPHY, MODERATE (17)  AGREE  AGREE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MODERATE (5,6,15)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
52	73374 Cont'd	21	LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  AGREE  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
53	73398	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - HEMA CELL PROL, MILD  LIVER - HYPERPLASIA, DIFFUSE, MODERATE  SPLEEN - HEMA CELL PROL, MODERATE	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  LIVER, HEPATOCYTE - HYPERPLASIA, MINIMAL (17)  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
53	73398 Cont'd	19	LYMPH NODE, AXILLARY, INGUINAL - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - INFLAMMATION, ACUTE, MODERATE  NOSE, SINUS - INFLAMMATION, MODERATE	AGREE  AGREE  EAR - ABSCESS, MODERATE (12)  NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
54	73424	24	THYMUS - DYSPLASIA, LYMPHOID, MODERATE  LUNG - LYMPHOMA LYMPH, PRESENT  LUNG, BRONCHUS - INFLAMMATION, MODERATE	NOT PRESENT IN SECTION (15)[NORMAL]  LUNG - LYMPHOMA MALIGNANT (16)  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)	AGREE WITH REVIEWING PATHOLOGIST  NOT PRESENT IN SECTION (16)  LUNG, BRONCHUS: HYPERPLASIA, LYMPHOID (16)	
				LIVER, HEPATOCYTE - EOSINOPHILIC FOCUS (17)	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
54	73424 Cont'd	24	LIVER - NECROSIS, MODERATE SPLEEN - HEMA CELL PROL, MILD LYMPH NODE - LYMPHOMA LYMPH, PRESENT LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MEDIASTINAL, MESENTERIC - DYSPLASIA, LYMPHOID, MODERATE LYMPH NODE, PANCREATIC - DYSPLASIA, LYMPHOID, MODERATE EAR - NORMAL NOSE, SINUS - INFLAMMATION, MODERATE	AGREE AGREE LYMPH NODE - LYMPHOMA MALIGNANT (28) AGREE NOT PRESENT IN SECTION (15,28) NOT PRESENT IN SECTION (18) AGREE NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED SPLEEN: HYPERPLASIA, LYMPHOID (18) LYMPH NODE: HYPERPLASIA, LYMPHOID (5,6) NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
55	73449	19	THYMUS - NORMAL	AGREE	AGREE WITH STUDY PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
55	73449 Cont'd	19	LUNG - LYMPHOMA LYMPH, PRESENT LUNG, BRONCHUS - INFLAMMATION, MODERATE LIVER - DEGEN, FATTY, MARKED LIVER - HYPERPLASIA, DIFFUSE, MODERATE SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE LYMPH NODE, AXILLARY, INGUINAL, MANDIBULAR - INFLAMMATION, CHRONIC ACTIVE, MARKED EAR - NORMAL NOSE - NORMAL	LUNG - LYMPHOMA MALIGNANT (15) LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MILD (15,16) AGREE LIVER, HEPATOCYTE - HYPERTROPHY, MILD (17) AGREE AGREE AGREE	AGREE WITH REVIEWING PATHOLOGIST AGREE WITH REVIEWING PATHOLOGIST NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
56	73503	25	THYMUS - NORMAL	AGREE	AGREE WITH STUDY PATHOLOGIST	

### SLIDE REVIEW WORKSHEET

<b>Study Title</b>	METHYL-TERTIARY-BUTYL ETHER	<b>Chemical #</b>	C00117/00117-69
<b>Laboratory</b>	CRC	<b>CAS #</b>	1634-04-4
<b>Group</b>	1000 MG/KG	<b>Dosage</b>	1000 MG/KG
<b>Sex &amp; Species</b>	FEMALE SD RATS	<b>Sacrifice</b>	CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
56	73503 Cont'd	25	LUNG - INFLAMMATION, MODERATE	LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (16)	AGREE WITH REVIEWING PATHOLOGIST	
			LUNG - LYMPHOMA LYMPH, PRESENT	LUNG - LYMPHOMA MALIGNANT (16)	NOT PRESENT IN SECTION (16)	
			LIVER, ENDOTHEL CELL - DYSPLASIA, MODERATE	NOT PRESENT IN SECTION (17)	NOT REVIEWED	
			SPLEEN - DYSPLASIA, LYMPHOID, MODERATE	SPLEEN - LYMPHOMA MALIGNANT, LYMPHOID (18)	NOT PRESENT IN SECTION (18)	
			SPLEEN - HEMA CELL PROL, MILD	AGREE	AGREE WITH STUDY PATHOLOGIST	
			LYMPH NODE, AXILLARY, MANDIBULAR, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			LYMPH NODE, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE	NOT PRESENT IN SECTION (15)	NOT REVIEWED	
			LYMPH NODE, PANCREATIC - INFLAMMATION, CHRONIC, MODERATE	AGREE	NOT REVIEWED	
			EAR - NORMAL	AGREE	NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
56	73503 Cont'd	25	NOSE - NORMAL	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MILD (8,9,10)	NOT REVIEWED	
57	73524	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER - NORMAL  SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE  LYMPH NODE, AXILLARY - INFLAMMATION, CHRONIC ACTIVE, MARKED  LYMPH NODE, INGUINAL, MANDIBULAR, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL  NOSE - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  AGREE  AGREE  AGREE  AGREE  AGREE	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	
58	73553	21				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
58	73553	21	THYMUS - NORMAL LUNG - DYSPLASIA, LYMPHOID, MODERATE LIVER - DEGEN, FATTY, MODERATE LIVER, HEPATOCYTE - HYPERPLASIA, FOCAL, MODERATE SPLEEN - PIGMENT, HEMOSIDERIN, MODERATE LYMPH NODE, MANDIBULAR - INFLAMMATION, CHRONIC, MODERATE LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC ACTIVE, MARKED EAR - INFLAMMATION, ACUTE, MODERATE NOSE - NORMAL	AGREE LUNG, BRONCHUS - INFLAMMATION, CHRONIC, MODERATE (16) AGREE LIVER, HEPATOCYTE - HYPERTROPHY, MILD (17) AGREE AGREE AGREE AGREE AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	
59	73567	19				

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
59	73567	19	THYMUS - INFLAMMATION, CHRONIC, MODERATE LUNG - NORMAL LIVER - NORMAL SPLEEN - NORMAL LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - DYSPLASIA, LYMPHOID, MODERATE LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - DYSPLASIA, LYMPHOID, MODERATE LYMPH NODE, MANDIBULAR, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MODERATE LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE	NOT PRESENT IN SECTION (15)[NORMAL] AGREE AGREE AGREE LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - HYPERPLASIA, LYMPHOID, MODERATE (28) AGREE LYMPH NODE, MANDIBULAR, MEDIASTINAL - HYPERPLASIA, LYMPHOID, MODERATE (5,6,15) AGREE AGREE	NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

TMT 1

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
59	73567 Cont'd	19	EAR - NORMAL  NOSE - NORMAL	AGREE  AGREE	NOT REVIEWED  NOT REVIEWED	
60	73605	19	THYMUS - NORMAL  LUNG, BRONCHUS - INFLAMMATION, MODERATE  LIVER, HEPATOCYTE - INFLAMMATION, MODERATE  SPLEEN - NORMAL  LYMPH NODE, AXILLARY, INGUINAL, MESENTERIC - INFLAMMATION, CHRONIC, MODERATE  LYMPH NODE, MANDIBULAR - HEMA CELL PROL, MARKED  LYMPH NODE, MEDIASTINAL - INFLAMMATION, CHRONIC, MODERATE  EAR - NORMAL	AGREE  LUNG, BRONCHUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (15,16)  LIVER, HEPATOCYTE - INFLAMMATION, CHRONIC, MILD (17)  AGREE  AGREE  NOT PRESENT IN SECTION (5,6)  AGREE  EAR - ABSCESS, MARKED (12)	NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED  NOT REVIEWED	

### SLIDE REVIEW WORKSHEET

**Study Title**      METHYL-TERTIARY-BUTYL ETHER  
**Laboratory**      CRC  
**Group**      1000 MG/KG  
**Sex & Species**      FEMALE   SD RATS

TMT 1

**Chemical #** C00117/00117-69  
**CAS #** 1634-04-4  
**Dosage** 1000 MG/KG  
**Sacrifice** CHRONIC-LIFETIME

CID Number	Histology Number	No Of Slides	Study Pathologist's Diagnoses	Reviewing Pathologist's Comments	PWG Coordinator's Comments PWG Consensus	Action To Be Taken <i>blank = No Change Required</i>
60	73605 Cont'd	19	NOSE, SINUS - INFLAMMATION, MODERATE	NOSE, SINUS - INFLAMMATION, CHRONIC ACTIVE, MODERATE (8,9,10)	NOT REVIEWED	



Experimental Pathology Laboratories, Inc.

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## **APPENDIX C**

### **PWG PARTICIPANTS CURRICULA VITAE**

**Charles B. Clifford, D.V.M., Ph.D.**

email charles.clifford@crl.com

**Present Position**

Director, Pathology and Technical Services, Charles River

**Education**

1974	B.S. (Zoology)	Michigan State University
1977	D.V.M.	Michigan State University
1981-1983	Pathology Residency	Walter Reed Army Institute of Research
1988	Ph.D. (Pathology) minors in Immunology and Cell Biology	Cornell University

**Professional and Scientific Societies**

American College of Veterinary Pathologists (Diplomate, by examination)	1983 - present
Society of Toxicologic Pathologists (Full Member)	1989 - present
American Veterinary Medical Association	1981 - present
American Association of Laboratory Animal Science	1992 - present

## **Experience**

- 1977-1978 Veterinary Officer, Veterinary Detachment, Bayonne, NJ. Supervised approximately 30 civilian and military personnel who inspected most subsistence shipped to the U.S. military in Europe. Conducted sanitary inspection of 5 commissaries and over 80 civilian food processors and suppliers in New York City, Long Island and northern New Jersey. Responsible for zoonosis control at 4 Army posts.
- 1978 Assistant Officer-in-Charge, Team D, 106th Medical Detachment, Pusan, Republic of Korea. Supervised inspection of all subsistence shipped to the U.S. Army in Korea, and managed the only two military veterinary clinics within a 90 mile radius.
- 1978-1979 Officer-in-Charge, Team A, 106th Medical Detachment, Oujongbu, Republic of Korea. Supervised all food inspection for U.S. troops stationed north of Seoul, including along the DMZ, public health consultation for the 2nd Infantry Division. Also was Assistant Chief and Surgeon for the U.S. Army veterinary clinic in Seoul.
- 1979-1980 Course Director, US Army Animal Care Specialist School, Washington, DC, the only school in the U.S. Army to train Animal Health Technicians. Was responsible for course content and administration, counseling and supervision of 5 faculty members, and 120 students per year. Taught courses in pathology, anesthesia, radiology, and the Cardiovascular, Respiratory and Gastrointestinal System.
- 1980-1983 Pathology Resident, Division of Pathology, Walter Reed Army Institute of Research. Provided collaborative histopathology support to the institute, including studies of renal toxicity, pulmonary trauma and toxicity using rodent, lagomorph, canine, and primate models. Served as diagnostic pathologist for the Institute's rodent and primate colonies. Completed all requirements for the board examination of the American College of Veterinary Pathologists.
- 1982-1984 Assistant Senior Army Social Aide to the President of the United States for White House functions, such as receptions and State dinners.
- 1983-1984 Staff Pathologist, Division of Pathology, Walter Reed Army Institute of Research. Developed a rat model and conducted independent research on pathogenesis and healing of pulmonary lesions due to concussive pressure waves. Collaborated in studies of hemorrhagic shock, military systems hazards assessment, and toxicopathology of anti-schistosomal drugs. Assisted in training of 3 pathology residents per year in preparation of the veterinary pathology board examination.
- 1984-1987 Research Assistant (doctoral student), Cornell University. Conducted original research on the ontogeny of neutrophil function and the inflammatory response, comparing fetuses, neonates, and adults. Designed a novel model of *in utero* pulmonary inflammation in the sheep, permitting repetitive blood sampling and bronchoalveolar lavage. Initiated and developed a histopathology training series for

3 veterinary pathology residents from non-English speaking countries. Each resident then successfully completed the veterinary pathology board examination. Completed all requirements for Doctor of Philosophy degree.

- 1987-1991 Research Pathologist and Assistant Chief of Pathology, Letterman Army Institute of Research. Supervised the Institute's postmortem and clinical pathology laboratories. Conducted original research in distribution and toxicity of purified modified hemoglobin solutions. Collaborated with other scientists in model design and pathology support of Good Laboratory Practices Act-compliant toxicity studies (principal pathologist), pathogenesis of neurovascular trauma, hemorrhagic shock and perfusion injury, wound healing, and pre-clinical testing of candidate resuscitative fluids. Served on a rotating duty as diagnostic pathologist for animal postmortem examinations. Member of the Institute's Animal Care and Use Committee.
- 1991-2001 Staff Officer, US Army Medical Research and Materiel Command. Two weeks annual duty as a senior staff member in office with budget and program oversight of all Army biomedical research concerning biological and chemical agents, >\$100 million/annum. Duties included technical review of research proposals, analysis and synopsis of diverse research projects for senior pentagon management. Retired as Colonel.
- 1991-1993 Senior Pathologist, Charles River Laboratories. Oversee all aspects of pathology support of the world's largest supplier of laboratory animals, with approximately \$600 million in annual sales and production facilities in the U.S. and more than 10 other countries. Collaborate in the definition of new animal models, including genetically engineered animals. Supervise extramural development of new diagnostic technologies. Design and conduct pathology service protocols in support of biotechnology and pharmaceutical customers. Address and resolve customer concerns regarding unexpected research findings or other pathology-related issues. Key professional for CRL swine xenotransplantation efforts.
- 1993-present Director, Pathology and Technical Services. (*additional duties to above*) Supervise two other pathologists and the Charles River Technical Assistance Department, which provides information to customers concerning normative data, test procedures, husbandry, health, and all other matters relating to laboratory animals. Oversee corporate toxicology consultant, preparation of technical and reference papers on Historical Control Data..
- 2001-2003 (additional duties) Direct responsibility for Contract Research Services department, approximately \$2 million annual revenue. Specialty areas include oncology, vaccine testing, novel imaging studies.

## Licensure

Michigan, #5124, 1977 to present.

## Inventions

Hairless Immunodeficient Mouse Model (U.S. application no. 12/047,948)

## PUBLICATIONS

1. Clifford, C.B., Jaeger, J.J., Moe J.B., and Hess, J.L., Gastrointestinal Lesions in Lambs Due to Multiple Low-Level Blast Over-Pressure Exposure. Military Medicine, 149:491-495, 1984.
2. Zwahlen, R.D., Slauson, D.O., Neilsen, N.R., and Clifford, C.B., Increased Adhesiveness of Complement-Stimulated Calf Neutrophils and Its Pharmacologic Inhibition. Journal of Leukocyte Biology, 41:465-473, 1987.
3. Boswell, G.D., Brooks, D.E., Murray, A.J., Doye, A.A., Disselhorst, D.J. Chin, C.L., and Clifford, C.B., Exogenous Methemoglobin as a Cyanide Antidote in Rats. Pharmaceutical Research, 5:749-752, 1988.
4. Clifford, C.B., Slauson, D.O., Neilsen, N.R., Suyemoto, M.M., Zwahlen, R.D., and Schlafer, D.H., Ontogeny of Inflammatory Responsiveness: Superoxide Anion Generation by Phorbol Ester-Stimulated Fetal, Neonatal, and Adult Bovine Neutrophils. Inflammation, 13:221-231, 1989.
5. Clifford, C.B., Wessels, D.W., and Smith, C.D., Morphologic effects of hypervolemic administration DBBF hemoglobin in the rat, Biomaterials, Art. Cells, Art. Organs, 18:321-328, 1990.
6. Schuschereba, S.T., Clifford, C.B., Vargas, J.A., Bunch, D., and Bowman, P.D., Morphologic alteration in rat retina after hypervolemic infusion of cross-linked hemoglobin, Biomaterials, Art. Cells, Art. Organs, 18:299-307, 1990.
7. Sondeen, J.L., Gonzaludo, G.A., Loveday, J.A., Deshon, G.E., Clifford, C.B., Hunt, M.M., Rodkey, W.G., and Wade, C.E., Renal Responses to Graded Hemorrhage in Conscious Pigs. Am J Physiol, 259:R119-R125, 1990.
8. Yuan, X-Q, Wade C.E., and Clifford, C.B., Traumatic Brain Injury Suppresses Spontaneous Hemodynamic Recover from Hemorrhagic Shock in Rats, J. Neurosurg. 75:408-414, 1991.

9. Yuan, X-Q, Wade C.E., and **Clifford, C.B.**, Immediate hypertensive response to fluid percussion brain injury may be related to intracerebral hemorrhage and hypothalamic damage. *J.Neurotrauma*, 8:219-228, 1991.
10. Dubick, M.A., Pfeiffer, J.W., **Clifford, C.B.**, Runyon, D.E., Kramer, G.C., Comparison of Intraosseous and Intravenous Delivery of Hypertonic Saline/Dextran in Anesthetized, Euvolemic Pigs, *Annals of Emergency Medicine*, 21:498-503, 1992.
11. Pascual, J.M.S., Runyon, D.E., Watson, J.C., **Clifford, C.B.**, Dubick, M.A., Kramer, G.C., Resuscitation of hypovolemia in pigs using near saturated sodium chloride solution in dextran, *Circulatory Shock*, 40:115-124, 1993.
12. Runyon, D., Bruttig, S, Dubick, M., **Clifford, C.**, Kramer, G., Resuscitation from hypovolemia in swine with intraosseous infusion of a saturated salt-dextran solution, *Journal of Trauma* 36:11-19, 1994.
13. **Clifford, C.B.**, Walton, B.J., Reed, T.H., Coyle, M.B., White, W.J., and Amyx, H.L., Hyperkeratosis in nude mice caused by a coryneform bacterium: Microbiology, transmission, clinical signs, and pathology, *Laboratory Animal Science*, 45:131-139, 1995.
14. Moore, D.H., **Clifford, C.B.**, Crawford, I.T., Cole, G.M., and Baggett, J.M., Review of nerve agent inhibitors and reactivators of acetylcholinesterase, in Enzymes of the Cholinesterase Family, edited by Quinn, D.M., *et al.*, pp. 297-304, Plenum Press, New York 1995.
15. **Clifford CB**, Samples, sample selection, and statistics: living with uncertainty. *Lab Anim (NY)* (2001 Nov) 30(10):26-31
16. Vargas, K.J., Stephens, C., **Clifford, C.B.**, Gray, K.N., and Price, R.E. Dystrophic cardiac calcinosis in C3H/HeN mice. *Laboratory Animal Science*, 46:572-575, 1996.
17. Loeb, W.F., Das, S.R., Harbour, L.S., Turturro, A., Bucci, T.J., and **Clifford, C.B.**, Clinical biochemistry, in Pathobiology of the Aging Mouse, Vol. 1, edited by Mohr, U., *et al.*, pp. 3-20, ILSI Press, Washington, D.C., 1996
18. Evans, M.G., Cartwright, M.E., Sahota, P.S., and **Clifford, C.B.**, Proliferative lesions of the skin and adnexa in rats. In: **Guides for Toxicologic Pathology**. STP/ARP/AFIP, Washington DC., 1997
19. **Clifford, C.B.**, and White, W.J., The guinea pig, in The Clinical Chemistry of Laboratory Animals, 2<sup>nd</sup> edition, edited by Loeb, W.F. and Quimby, F.W., pp.65-70, Taylor & Francis, Philadelphia, P.A., 1999.
20. Gaillard, E.T., and **Clifford, C.B.**, Common Diseases, in The Laboratory Rat, edited by Krinke, G.J., pp. 99-132, Academic Press, San Diego, 2000.

21. Crippa,L.; Gobbi,A.; Ceruti,R.M.; **Clifford,C.B.**; Remuzzi,A.; Scanziani,E. Ringtail in suckling Munich Wistar Fromter rats: A histopathologic study. Comparative Medicine 50(5):536-539, 2000.
22. **Clifford CB**, Samples, sample selection, and statistics: living with uncertainty. Lab Anim (NY) 30(10):26-31, 2001
23. Kohn, D.F., and **Clifford, C.B.**, Biology and Diseases of Rats, in Laboratory Animal Medicine, edited by Fox, J.G., et. al., Academic Press, San Diego, 2002
24. Bemis, D.B., Shek, W.R., and **Clifford, C.B.**, *Bordetella bronchiseptica* infection of Rats and Mice. Comparative Medicine, 53(1):11-20, 2003
25. Shek WR, Pritchett KR, **Clifford CB**, White WJ, Large-scale rodent production methods make vendor barrier rooms unlikely to have persistent low-prevalence parvoviral infections. Contemp Top Lab Anim Sci 44(4):37-42, 2005
26. Rohde CM, Wells DF, Robosky LC, Manning ML, **Clifford CB**, Reily MD, Robertson DG Metabonomic evaluation of Schaedler altered microflora rats. Chem Res Toxicol 20(10):1388-92, 2007
27. **Clifford, CB**, and Watson, J. Old enemies, still with us after all these years. ILAR Journal, 49(3):291-302, 2008
28. Pritchett-Corning, KR, Cosentino, J, and **Clifford, CB**, Prevalence of infectious agents in laboratory mice and rats, Laboratory Animals, 43:165–173, 2009
29. Albers, TM, Simon, MA and **Clifford, CB**, Histopathology of Naturally Transmitted "Rat Respiratory Virus": Progression of Lesions and Proposed Diagnostic Criteria, Veterinary Pathology, 46:992-999, 2009.
30. **[In press]**

31. Schaffer BS, Grayson MH, Wortham JM, Kubicek CB, McCleish AT, Prajapati SI, Nelon LD, Brady MM, Jung I, Hosoyama T, Sarro LM, Hanes MA, Rubin BP, Michalek JE, **Clifford CB**, Infante AJ, Keller C, Immune competency of a hairless mouse strain for improved preclinical studies in genetically engineered mice. Mol Cancer Ther (2010 Aug) 9(8):2354-64

## TECHNICAL REPORTS

1. Frost, D.F., Hall, R.D., Zaucha, G.M., Waring, P.P., **Clifford, C.B.**, Wheeler, C.R. and Korte, D.W., Twenty-eight Day Subchronic Toxicity Study of Physostigmine Salicylate in Beagle Dogs. Institute Report #310, Letterman Army Institute of Research, U.S. Army, October 1988.
2. Frost, D.F., Omaye, S.T., Zaucha, G.M., **Clifford, C.B.**, Wheeler, C.R., Schuschereba, S.T., and Korte, D.W., Twenty-eight Day Subcutaneous Subchronic Toxicity Study of Physostigmine Salicylate in Rats. Institute Report #317, Letterman Army Institute of Research, U.S. Army, November 1988.
3. Frost, D.M., Zaucha, G.M., Omaye, S.T., **Clifford, C.B.**, and Korte, D.W., Acute Intravenous Toxicity of Hypertonic Saline/Dextran 70 and its Constituents in Beagle Dogs. Institute Report #392, June 1989.
4. Zaucha, G.M., Frost, D.F., Omaye, S.T., **Clifford, C.B.**, and Korte, D.W., Fourteen-Day Subacute Intravenous Toxicity Study of Hypertonic Saline/Dextran 70 and its Constituents in Beagle Dogs. Institute Report #404, Letterman Army Institute of Research, November 1989.
5. Magnuson, D.K., Zaucha, G.M., **Clifford, C.B.**, and Korte, D.W., Primary Dermal Irritation of Physostigmine Salicylate, Physostigmine Free-Base, and Pyridostigmine Bromide in New Zealand White Rabbits. Institute Report #438, Letterman Army Institute of Research, January 1990.
6. Copes, V.G., Gomez, C.L., **Clifford, C.B.**, Ferraris, S., and Korte, D.W., Toxic Potential of Nitroguanidine on Reproduction and Fertility in Rats, Institute Report #434, Letterman Army Institute of Research, May 1990.
7. Morgan, E.W., Zaucha, G.M., Waring, P.P., LeTellier, Y., Seewald, J.B., **Clifford, C.B.**, and Korte, D.W., Ninety Day Subchronic Oral Toxicity Study of Pyridostigmine Bromide in Rats. Institute Report #435, Letterman Army Institute of Research, May 1990.
8. Morgan, E.W., Zaucha, G.M., Waring, P.P., LeTellier, Y., Seewald, J.B., **Clifford, C.B.**, and Korte, D.W., One Hundred Eighty Day Subchronic Oral Toxicity Study of Pyridostigmine Bromide in Rats. Institute Report #441, Letterman Army Institute of Research, June 1990.

## **ABSTRACTS**

1. Slauson, D.O., Skrabalak, D.S., Zwahlen, R.D., Neilsen, N.R. and **Clifford, C.B.**, Equine Neutrophil Aggregation and Adhesiveness Responses to C5a and AGEPC. Joint Conference of the International Leukocyte Culture conference and the Reticuloendothelial Society, 1985.
2. Zwahlen, R.D., Slauson, D.O., Neilsen, N.R., and **Clifford, C.B.**, Adhesiveness Responses of Neonatal Neutrophils to Zymosan-Activated Plasma. Joint Conference of the International Leukocyte Culture Conference and the Reticuloendothelia Society, 1985.
3. **Clifford, C.B.**, Slauson, D.O., Zwahlen, R.D., Schlafer, D.H., and Neilsen, N.R., Superoxide Anion Generation by Bovine Neutrophils: A Comparison of Fetal, Neonatal, and Adult Cells. American College of Veterinary Pathologists Annual Meeting, December, 1985.
4. Zwahlen, R.D., Slauson, D.O., Neilsen, N.R., and **Clifford, C.B.**, Adhesiveness of C5a-Treated Bovine Neonatal Neutrophils: Influence of Anti-Inflammatory Agents. American College of Veterinary Pathologists Annual Meeting, December 1985.
5. Slauson, D.O., Zwahlen, R.D., Neilsen, N.R., and **Clifford, C.B.**, Aggregation and Adhesiveness Responses of Equine Neutrophils to C5a and Platelet Activating Factor. American College of Veterinary Pathologists Annual Meeting, December 1985.
6. Slauson, D.O., Zwahlen, R.D., Neilsen, N.R., **Clifford, C.B.**, Bochsler, P.N., and Enright, F.M., Pharmacologic Inhibition of C5a-induced Increased Adhesiveness of Newborn and Adult Neutrophils by Steroidal and Non-Steroidal Anti-Inflammatory Drugs. American College of Veterinary Pathologists Annual Meeting, December 1986.
7. Miller, R.E., Lightner, L., **Clifford, C.B.**, Reid, W.A., Jones, D., and Witter, K.R., The Efficacy of Topically Applied Niclosamide at Preventing Schistomiasis mansoni in Rhesus Monkeys. American Society of Tropical Medicine and Health Annual Meeting, 1988.
8. Loveday, J.A., Gonzaludo, G.A., Sondeen, J.L., Rodkey, W.G., **Clifford, C.B.**, Deshon, G.E., Wade, C.E., Surgical Preparation for the Study of Renal Function in Conscious Swine. Presented at American Association for Laboratory Animal Science Annual Meeting, 1989.
9. **Clifford, C.B.**, Wessels, D.W., and Smith, C.D., Morphologic Effects of HBXLA99 in Rats, Biomaterials, Art. Cells, Art. Organs, 17:680, 1989.
10. Schuschereba, S.T., **Clifford, C.B.**, and Vargas, J.A., Effects of Hypervolemic Infusion of Cross-Linked Hemoglobin (DBBF-Hb) on the Rat Retina, Biomaterials, Art. Cells, Art. Organs, 17:698, 1989.

11. Korte, D.W., Frost, D.F., Zaucha, G.M., Waring, P.P., **Clifford, C.B.**, and Wheeler, C.R., 28-day Toxicity in Beagle Dogs of Physostigmine Salicylate Administered via Subcutaneously Implanted Alzet Osmotic Minipumps, Proc. West. Pharmacol. Soc., 32:159, 1989.
12. Dubick, M.A., Runyon, D.E., **Clifford, C.B.**, and Kramer, G.C., Comparison of Intraosseous with IV Infusions of Hypertonic Saline Dextran-70, Ann. Emerg. Med., 20:480, 1991.
13. Runyon, D.E., **Clifford, C.B.**, Bruttig, S.P., Wade, C.E., Dubick, M.A., and Kramer, G.C., Resuscitation of Hypovolemia Using Intraosseous Infusion of a Small Volume of 25% NaCl/24% Dextran-70, Ann. Emerg. Med., 20:480, 1991.
14. Bowman, P.D., **Clifford, C.B.**, McFaul, S.J., Tacha, D., and Johnson, T.W., Distribution of Purified Hemoglobin in Mouse Tissue as a Function of Time after Administration: An Immunocytochemical Study. FASEB, 1991.
15. **Clifford, C.B.**, Gianni, F.J., and White, W.J., *Pneumocystis carinii* and modern methods of rodent breeding and husbandry. Joint meeting of Am Soc Parasitologists and Soc Protozoologists, 1996.
16. Henderson, K.S., **Clifford, C.B.**, and Dionne, J.A., Comparison of the polymerase chain reaction with histological technique for detection of *Pneumocystis carinii*. Joint meeting of Am Soc Parasitologists and Soc Protozoologists, 1996.
17. Kim, N.M., Bailey, L., Olson, T., **Clifford, C.B.**, Benso, F.J., Sgrulloni, S.J., Duenas, E., Cleland, J.L., Putney, S.D., and Riley, M.G.I., Immunogenicity evaluation of ProLease® hGH: A sustained release formulation. Society of Toxicology, 1997.
18. Albers, T.M. and **Clifford, C.B.** Eosinophilic granulomatous pneumonia: A strain-related lesion of high prevalence in the Brown Norway rat, Contemporary Topics, 39(4):61-62, 2000
19. Albers, T. M. and **Clifford, C. B.** Transmission of rat respiratory virus in a rat colony: Gross and histopathological progression of lesions. Contemp Top. Lab Anim Sci 42[4], 73-74. 2003.

Curriculum Vitae

**Dr. Sabine FRANCKE-CARROLL**

Veterinary Medical Officer / Expert Toxicologic Veterinary Regulatory Review Pathologist

DHHS/CFSAN/FDA/ OFAS/ Senior Science and Policy Staff /Pathology  
5100 Paint Branch Parkway HFS-205  
College Park MD 20740  
(301) 436-1308

**EDUCATION:**

Ph.D., The Ohio State University, Columbus, OH, USA  
Applied Veterinary Pathology Residency, The Ohio State University, Columbus, OH, USA  
Dr. Vet. Med., Justus-Liebig University, Giessen, Germany  
D.V.M., Justus-Liebig University, Giessen, Germany

**PROFESSIONAL ORGANIZATIONS AND MEMBERSHIPS:**

Recognized Fellow of the International Academy of Toxicologic Pathology (IATP; 2010 - present)  
European Society of Toxicologic Pathology (ESTP; 2009 – present)  
US Society of Toxicologic Pathology (STP; 1998 - present)  
American College of Toxicology (ACT; 1999 - present)  
Association of Government Toxicologists (AGT; 2000- present) – President Elect (2009-11)  
Charles Louis Davis D.V.M. Foundation for the Advancement of Veterinary and Comparative Pathology (2000 – present)

United States and Canadian Academy of Pathology, Inc. (USCAP 2000-2010)  
American Association for the Advancement of Science (AAAS 1992-2010)  
National Society for Histotechnology (NSH 2004-2009)

**PROFESSIONAL EXPERIENCE:**

**CURRENT DUTIES:**

Expert Toxicologic Veterinary Regulatory Review Pathologist, Senior Science and Policy Staff / Pathology  
Department of Health and Human Services / FDA / CFSAN / OFAS /College Park, MD.

4/10 – present

The incumbent in the Office of Food Additive Safety (OFAS) in CFSAN is recognized by FDA as subject matter expert for Toxicologic Veterinary Regulatory Review Pathology (Veterinary Officer / Pathologist) and serves as an authoritative expert in her field, conducting independent, in-depth regulatory reviews and complex safety evaluations of pathology data from regulatory submissions from all FDA Centers. The incumbent performs independent histo-pathological slide evaluations and serves as authoritative expert in regulatory toxicologic veterinary pathology on Center-, Inter Agency-, and national / international professional committees and provides a regulatory perspective when serving on Pathology Working Groups (PWGs) convened to resolve complex pathology issues.

Supervisor: Dennis Keefe, Ph.D., (Director, SSPS, OFAS, CFSAN/FDA)

Senior Toxicologic Veterinary Pathologist, Senior Science and Policy Staff / Pathology  
Department of Health and Human Services / FDA / CFSAN / OFAS /College Park, MD.

2/2007- 3/10. The incumbent serves in the Office of Food Additive Safety (OFAS) in CFSAN as Toxicologic Veterinary Pathologist (Veterinary Officer / Pathologist) conducting independent, in-depth regulatory reviews and complex safety evaluations of pathology data from regulatory submissions from all FDA Centers. The incumbent performs a wide range of administrative functions pertaining to the budget process, property management and pathology contract management.

Supervisor: Dennis Keefe, Ph.D., (Director, SSPS, OFAS, CFSAN/FDA)

Acting Branch Chief, Pathology Branch

Department of Health and Human Services / FDA / CFSAN / OSAS / DGSS / Pathology Branch, College Park, MD.

1/2005-2/2007 Center-wide Reorganization. The incumbent is an experienced regulatory reviewer and applies in-depth professional knowledge and skills as Veterinary Medical Officer / Pathologist conducting independent safety evaluations of pathology data from regulatory petitions for the Division of General Scientific Support (DGSS).

The incumbent manages independently the Pathology Branch and the associated histopathology laboratory, performing a wide range of administrative functions pertaining to daily operations (such as the budget process, property management and contract management). The Pathology Branch and the Pathology Laboratory provide a full range of pathology support functions

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**Dr. Sabine FRANCKE-CARROLL**

Veterinary Medical Officer / Expert Toxicologic Veterinary Regulatory Review Pathologist

**PROFESSIONAL EXPERIENCE (contd.):**

for requesting Offices/researchers such as pathology protocol design, monitoring animal-study in-life-phases, performing necropsies, guiding the tissue processing, evaluating histological glass slides and reporting of pathology data. The incumbent instructs and trains laboratory associated personnel and adjunct students from the University of Maryland. The incumbent is solely responsible for the development and application of all immuno-histopathological services provided by the Pathology Laboratory.

Supervisor: Prem Dua, D.V.M., Ph.D., (Director, DGSS, OSAS, CFSAN/FDA)

Senior Staff Toxicologic Pathologist

Department of Health and Human Services / FDA / CFSAN / OSAS / DGSS / Pathology Branch, College Park, MD.

01/2002-12/2004. The incumbent assists the Director of the Division of General Scientific Support (DGSS) with regulatory (food petition) reviews. To do this the incumbent applies knowledge of FDA laws/regulations and extensive experience in pathology data analysis. The incumbent is further involved in administrative matters pertaining to the operation of the Pathology Branch, e.g. the zero based budgeting process. The incumbent's significant research experience involves her extensively as Co-principal investigator in several research projects with Center and/or adjunct scientists from the University of Maryland (UMD). The incumbent serves as student mentor and instructor to laboratory personnel and UMD/JIFSAN students, and promotes the development of immuno-histopathological services provided by the Pathology Laboratory.

Supervisors: Fred Hines, D.V.M., (Pathology Branch Chief), Prem Dua D.V.M., Ph.D., (DGSS Director)

Staff Toxicologic Pathologist

Department of Health and Human Services / FDA / CFSAN / OSAS / DGSS / Pathology Branch, College Park, MD.

01/2001 – 12/2002. The incumbent provides histo-pathological analysis and support to requesting researchers associated with Governmental Offices (e.g. OARSA) and/or joint facilities such as the University of Maryland (under the umbrella of the Joint Institute for Food Safety and Applied Nutrition (JFSAN)). The incumbent participates as Immuno-pathologist and/or as Co-principal-investigator in protocol design, monitors animal-study in-life-phases, performs necropsies, guides the tissue processing, evaluates histological slides and conducts the final pathology-relevant reporting of assigned animal research studies. The incumbent initiates the development of immuno-histopathological services provided by the Pathology Laboratory.

Supervisors: Fred Hines, D.V.M., (Pathology Branch Chief), Prem Dua D.V.M., Ph.D., (DGSS Director)

Toxicologic Pathologist, Novartis Pharmaceuticals Inc. East Hanover, NJ.

11/98 –11/2000. The incumbent generates and evaluates pathology data of assigned acute, subacute and chronic preclinical drug-safety studies which also entailed partial, direct/indirect supervision of technical personnel assigned to these studies. The incumbent is assigned to projects with standard design and/or those requiring an appropriate level of interpretive experience and knowledge. A current knowledge of recent advances and new equipment/procedures is important to achieve optimum results. At the conclusion of each study, the incumbent participates in the data review/analyses to determine target organ toxicity. The incumbent participates in the study design and in the evaluation and implementation of new procedures to improve preclinical drug-safety operations. The incumbent is a member of scientific boards, project teams, and advisory committees and performs other duties as assigned by upper management.

Supervisor: Dr. Pritam Sahota, D.V.M, Ph.D.

Veterinary Research Pathologist, Pathology Associates International (PAI), Immunology and Molecular Pathology Division Frederick, MD 21701

09/1996 – 98. The incumbent evaluates designs and interprets studies assessing the cross-reactivity characteristics of monoclonal antibodies in human and animal tissues (in vivo/in vitro exposure), the localization of monoclonal antibodies by means of immuno-labeling techniques and conducts development and application of molecular and cellular histopathologic technology to characterize and resolve mechanistic problems associated with biopharmaceutical product development.

Supervisor: Bill Hall, V.M.D., Ph.D.

Curriculum Vitae

**Dr. Sabine FRANCKE-CARROLL**

Veterinary Medical Officer / Expert Toxicologic Veterinary Regulatory Review Pathologist

**PROFESSIONAL EXPERIENCE (contd.):**

Graduate Research Associate (Ph.D. / Veterinary Pathologist), The Ohio State University, Department of Veterinary Biosciences, Columbus, Ohio

1992-1996 Research conducted evaluates anti-retroviral drug-effects (mainly AZT) on cellular immune responses and immune-cell precursor frequencies. Effector-cell frequency analysis, by limiting dilution analysis (LDA), allows not only qualitative assessment but also quantitation of the effects noted. Two animal models, an outbred feline model for retroviral infection and an inbred mouse model for allograft rejection are utilized in these studies. Research activities: Histopathology, immunology, retro-virology, in-vivo and in-vitro drug testing, immunohistochemistry, vaccine development, cell culture and molecular biology.

Thesis advisor: Lawrence E. Mathes, Ph.D., Professor.

Graduate Teaching Associate and Resident (Veterinary Pathologist / Ph.D.)

1990-1992 (continued services during Ph.D training until 1996) The Ohio State University  
Department of Veterinary Biosciences  
Columbus, Ohio

Graduate Assistant (Dr.med.Vet.)

1988-1990 Justus-Liebig University  
Giessen, Germany

Research performed to obtain a "Dr. Vet. Med." degree centers on the immunohistologic characterization of the cellular immune response to bacterial infection with *Coxiella burnetii* in a murine model. Results illustrated that cellular mechanisms are crucially involved in the pathogenesis of chronic infection with *C. burnetii*.

Thesis advisor: Dr. Wolfgang Baumgaertner, D.V.M., Ph.D., Professor.

Graduation from Veterinary School (DVM)

1988 Justus-Liebig University  
Giessen, Germany

**LEADERSHIP EXPERIENCE:**

- Elected board member to IATP 2011: Vice president 2011-13; President 2013-15
- Recognized as Fellow IATP (International Academy of Toxicologic Pathology) 2009.
- FDA recognized (Agency Peer Review) Expert for Toxicologic Veterinary Regulatory Review Pathology (April 2011)
- President Elect of the Association of Government Toxicologists (AGT term 2010-2011)
- Councilor to the Board of the Association of Government Toxicologists (AGT), 2006 & 2008
- CFSAN Immunotox Redbook working group: chair
- STP SRPC Regulatory Liaison since 2005 till present
  - Hepatic Enzyme Induction working group liaison since 2007/ chair – Dec 2008-10
  - Historical Control Data working group SRPC liaison, 2006-2009
- Pathology Laboratory Chief, and Acting Pathology Branch Chief; providing training, instructions and guidance to Laboratory Technicians and visiting scientists from UMD, regarding duties and functions of the Pathology Branch and its Laboratory.
- Mentor to JIFSAN students; Mentor to UMD and Pathology Laboratory students.
- Histopathology mentor and instructor for Laboratory Biologist: training included pathology terminology, histology, histopathology, tissue trimming, tissue processing, preparation of paraffin blocks, microtoming, H&E staining of routine slides, Immunohistochemical staining, archiving, laboratory administrative work and reagent ordering.

Curriculum Vitae

**Dr. Sabine FRANCKE-CARROLL**

Veterinary Medical Officer / Expert Toxicologic Veterinary Regulatory Review Pathologist

**SERVICES AND RESPONSIBILITIES:**

- Regulatory liaison to the Scientific Regulatory and Policy Committee (SRPC) of the Society of Toxicologic Pathology (STP) since 2005
  - SRPC liaison to the Historical Control Data working group; 2006 -09 - Best Practice manuscript published TP 2009; 37(5) 679-93.
  - SRPC liaison to the Hepatic Enzyme Induction Risk Assessment (HEI- RA) working group since 2007; chair since Dec. 2008 – 2010.
  - SRPC liaison to the Joint Regulatory Affairs Committee (JRAC) between STP and the American College of Veterinary Pathology (ACVP); since 2006 - 2009.
  - Invited Member of the STP Regulatory Forum editorial group for the Journal of Toxicologic Pathology since 2007 – ongoing.
- CFSAN Immunotox Redbook committee since 2006
  - Chair: Dec 07 – ongoing.
- Association of Government Toxicologists (AGT)
  - Board member councilor 2005-07; elected for–second term 2008; President elect 2009-10; President 2010-11; Past President 2011-12 – 3 year leadership commitment - ongoing.
- Acting Chief of the Pathology Branch and Laboratory / DGSS (1/2005- until CFSAN reorganization 2/2007).
- CFSAN Cancer Assessment Committee (CAC) Member – Pathologist – since 2004.
- CFSAN Pathology Services and Archiving Contract Project Officer since 2006 – recertified as COTR July 31, 2009.
- Property Management Officer 2005-07.
- CFSAN Science Council Committee Member since 2004.
  - SC Scientific Dissent Resolution policy draft subcommittee 2007-09.
  - SC membership charter following the CFSAN 2007 reorganization subcommittee Scientific Achievement Award-subcommittee (2004, '05, '06, '07, '08).
  - Manuscript clearance subcommittee 2004.
- CFSAN Toxicology Redbook Committee Member since 2003.
- Joint Institute for Food Safety and Applied Nutrition (JIFSAN) steering Committee Member 2002-'07. And JIFSAN Grant – Pathology Support Collaborator to the University of Maryland (UMD), Department of Food Science.

**AWARDS / Professional Recognitions**

- Recognized FDA Expert for Toxicologic Veterinary Regulatory Review Pathology through Agency peer review March 2010.
- Recognized as Fellow IATP (International Academy of Toxicologic Pathology) 2009.
- FDA / CFSAN Outstanding Customer Service Award, Office of Food Additive Safety for *pathology support to CDRH on the histopathological evaluation of mouse tissues for the distribution of nano-material*, June 2008.
- FDA and Center-level Crosscutting Award that includes CFSAN Employees, FDA Melamine Award, Adulterated protein investigations, analysis, planning, scientific review and emergency response team for *exemplary performance to protect the public health from adulterated protein through actions of investigations, sample analyses, method development, assignment, planning, emergency response, scientific review and risk assessment*, June 2008.
- FDA / CFSAN Honor Award: Aspartame Carcinogenicity Review Team, Office of Food Additive Safety for *exceptional performance in evaluating the results of a number of carcinogenicity studies on aspartame, including the high-profile European Ramazzini Foundation study*, June 2008.
- FDA Outstanding Service Award for *outstanding performance while participating on an expert pathology review panel in response to an Inter-Center pathology support request from CDER* June 2007.
- FDA Outstanding Service Award for *outstanding performance in the regulatory review of pathology issues and in providing critical pathology support to the Office of Food Additive Safety* June 2006.
- FDA Outstanding Service Award for *sustained superior performance in evaluating and resolving complex regulatory pathology review issues as well as supporting collaborating scientists* June 2005.
- FDA Outstanding Service Award for *sustained superior performance in the evaluation of substantial and voluminous regulatory and experimental pathology data* June 2004.
- Team Award as member of the OARSA Food Allergenicity Team for *outstanding team effort in successfully completing pilot studies to evaluate a unique animal model for the study of human food allergenicity* June 2003.
- FDA Outstanding Service Award for *sustained superior performance in the Pathology Branch instituting a food-allergy rat model, leveraging with the UMD and establishing a IH laboratory* June 2003

## Curriculum Vitae

**Dr. Sabine FRANCKE-CARROLL**

## Veterinary Medical Officer / Expert Toxicologic Veterinary Regulatory Review Pathologist

- Quality Performance Award for *developing methods to quantify "altered crypt foci" in the colon of rats* July 2002
  - Quality Performance Award for *Pathology support services with the University of Maryland (UMD)* June 2002

#### **PUBLICATIONS AND PRESENTATIONS:**

**Technical Reports:** lists on - regulatory review projects (upon request)  
- regulatory research projects (upon request).

#### **Poster / Journal presentations and Talks:**

Boorman G., Wolf D., Francke-Carroll S., and Maronpot R. Guest Editorial: Pathology Peer Review. *Tox Path* 38:1009-1010, 2010.

Botts S., Ennulat D., Francke-Carroll S., Graham M., Maronpot R., and Mohutsky M. Introduction to Hepatic Drug Metabolizing Enzyme induction in Drug Safety Evaluation Studies. Tox Path 38: 796-798, 2010.

Mohutsky M., Romeike A., Meador V., Lee W., Fowler J. and Francke-Carroll S. (Chair) Introduction to Hepatic Drug Metabolizing Enzyme induction in Drug Safety Evaluation Studies. Tox Path 38: 799-809, 2010.

Griffis L., Twerdok L.E., Francke-Carroll S., Biles R., Schroeder R., Bolte H., Hall W., Faust H. and Rojko J. Comparative 90-day dietary study of paraffin wax in Fischer-344 and Sprague-Dawley rats. Food and Chemical Toxicology: 2010, 48: 363-372.

Patri A., Umbreit T., Zeng J., Nagashima K., Goering P., Francke-Carroll S., Golden E., Weaver J., Miller T., Sadrieh N., McNeil S., and Stratmeyer M. Energy dispersive X-ray analysis of titanium dioxide nanoparticle distribution after intravenous and subcutaneous injection in mice. Journal of Applied Toxicology 2009, 29: 667-672.

Keenan C., Elmore S., Francke-Carroll S., Kemp R., Kerlin, Peddada, S., R., Fletcher J., Rinke M., Schmidt S., Taylor I. and Wolf D. Potential for a Global Historical Control Database for Proliferative Rodent Lesions. *Tox Path* 2009; 37(5) 677-8.

Keenan C., Elmore S., Francke-Carroll S., Kemp R., Kerlin, Peddada, S., R., Fletcher J., Rinke M., Schmidt S., Taylor I. and Wolf D. Regulatory Forum: Best Practices for Use of Historical Control Data of Proliferative Rodent Lesions. *Tox Path* 2009; 37(5) 679-93.

Kerlin R, Hutto D, Silverman L, Francke-Carroll S, Vahle J. Regulatory forum for Toxicologic Pathology: an update. *Toxicologic Pathology* 2008; 36(5):760.

Austin C., Umbreit T., Brown K., Barber D., Dair B., Francke-Carroll S., Feswick A., Saint-Louis M., Hikawa H., and Goering P. Distribution of iv-injected silver nanoparticles in pregnant mice and developing embryos. Poster presentation at the Society of Toxicology's 48<sup>th</sup> annual meeting held in Baltimore MD, March 15-19, 2009.

Invited Talk: Francke-Carroll S., Society of Toxicologic Pathology (STP), 27<sup>th</sup> annual meeting: As Module of the Effective Communication for the Toxicologic Pathologist - Career Development Courses: "Communicating Pathology Information Effectively to Regulatory Agencies". San Francisco, CA June 20-26, 2008.

Keenan C., Elmore S., Francke-Carroll S., Kemp R., Kerlin R., Pletcher J., Rinke M., Schmidt S., Taylor I., Wolf D. STP Working Group on Historical Control Data of Proliferative Rodent Lesions. Presented at the 26<sup>th</sup> annual meeting of the Society of Toxicologic Pathology (STP) in San Juan, Rio Mar, Puerto Rico, June 2007.

Umbreit T.H., Goering P.L., Miller T.J., Weaver J.L., Francke-Carroll S., Sadrieh N., Kauffman J., Guthrie J., Robertson J., Stratmeyer M.E.: *Toxicity and Tissue Distribution of Titanium Dioxide (TiO<sub>2</sub>) Nanoparticles in subcutaneous and intravenously injected mice over 6 months* Poster presentation at the Society of Toxicology's 47<sup>th</sup> annual meeting held in Seattle, WA, March 21-26, 2008.

Curriculum Vitae

**Dr. Sabine FRANCKE-CARROLL**

Veterinary Medical Officer / Expert Toxicologic Veterinary Regulatory Review Pathologist

**PUBLICATIONS AND PRESENTATIONS (contd.)**

Daly K., Tracy A., Francke-Carroll S., Wang T., Malik M. and Magnuson B.A. Enhanced estrogenic responses and sensitivity to azoxymethane following dietary soy isoflavone supplementation in older female rats. *Food Chem Toxicol* 2007 Apr; 45 (4):628-37.

Umbreit T., Goering P., Francke-Carroll S., Patri A., McNeil S., Weaver J., Miller T., Sadrieh N., and Stratmeyer M. *Energy dispersive X-ray analysis of titanium dioxide nanoparticle distribution in mice*. Poster presentation at the Society of Toxicology's 46<sup>th</sup> annual meeting held in Charlotte, NC March 25-29, 2007.

Yoon DM, Hawkins EC, Francke-Carroll S., Fisher JP. Effect of construct properties on encapsulated chondrocyte expression of insulin-like growth factor-1. *Biomaterials* 2007 Jan 28 (2); 299-306.

Morton D, Kemp RK, Francke-Carroll S., Jensen K, McCartney J, Monticello TM, Perry R, Pulido O, Roome N, Schafer K, Sellers R, Snyder PW. Best practice for reporting pathology interpretations within GLP toxicology studies. *Tox Path* 2006; 34 (6); 806-9.

Su Y., Yu T., Lala G., Francke-Carroll S., and Magnuson B.A. Protection of side effects of 5-flurouracil by anthocyanin-rich extracts. International Research Conference on Food and Nutrition and Cancer, Washington DC, July 2005. Published in *J. Nutr.* 135.12S:3054.

Ferri, M, Francke-Carroll S. and Magnuson B.A. JIFSAN Student project: Development of immuno-histochemical staining techniques for PCNA and APOPTOSIS tissue markers on rat tissues in the CFSAN Pathology Laboratory. Poster presentation at the 11<sup>th</sup> Annual FDA Science Forum, 2005, Washington Convention Center, Washington DC.

Hinton D.M., Lorenzo M., Harper S.B. and Francke-Carroll S., (2004). USFDA, CFSAN, Laurel, MD. Progress in the evaluation of an in-bred rat strain ("asthmatic rat") for predicting the allergic potential of food and other Proteins. Seminar presented at OFAS/CFSAN/USFDA Vermont Ave May 6, 2004.

Hinton D.M., Lorenzo M.E., Harper S.B., Francke-Carroll S., O'Neill R.K., Chirtel S.J., Calvo M.S. An In-Bred Rat Strain (the FDA "Asthmatic Rat") for Predicting the Allergic Potential of Proteins and for Evaluating the Efficacy of Drugs and Dietary Supplements in Respiratory (Asthmatic) and Cardiovascular Studies Poster presentation (Board Number B-08) at the 10th Annual FDA Science Forum, 2004, Washington Convention Center, Washington DC.

Magnuson B., Daly K., Malik M., Wang T., Francke-Carroll S.. Enhanced Sensitivity of Female Rats to Azoxymethane following Dietary Soy Isoflavone Supplementation. Poster presentation at the 10<sup>th</sup> Annual FDA Science Forum, 2004, Washington Convention Center, Washington DC.

Francke-Carroll S., Daly K., Wang T. and Magnuson B.A. Underlying age-related liver pathology increases azoxymethane toxicity in F344 female rats in an aging study on colon cancer chemoprevention with dietary soy. Website publication (Board Number D-PO-01) for the 10<sup>th</sup> Annual FDA Science Forum, 2004, Washington Convention Center, Washington DC.

Francke-Carroll S., Daly K., Wang T. and Magnuson B.A. Underlying age related liver pathology increases Azoxymethane toxicity in F344 female rats in an aging study on colon cancer and nutrition. Poster presentation # 500 at the Society of Toxicology's 43<sup>rd</sup> annual meeting held in Baltimore, MD, March 21-26, 2004.

Hinton D.M., Lorenzo M., Harper S.B. and Francke-Carroll S., (2004). USFDA, CFSAN, Laurel, MD. Progress in the evaluation of an in-bred rat strain ("asthmatic rat") for predicting the allergic potential of food and other Proteins. , *The Toxicologist* (Platform Session on Hypersensitivity, Abstract #662, 43<sup>rd</sup> Annual Meeting of the Society of Toxicology).

Hinton D.M., Myers M.J., Raybourne R.A., Francke-Carroll S., Sotomayor R.E., Shaddock J., Warbritton A., Chou M.W.: Immunotoxicity of Aflatoxin B<sub>1</sub> in Rats: Effects on Lymphocytes and the Inflammatory Response in a Chronic Intermittent Dosing Study. *Toxicological Sciences*; 73, 362-377, 2003.

Curriculum Vitae

**Dr. Sabine FRANCKE-CARROLL**

Veterinary Medical Officer / Expert Toxicologic Veterinary Regulatory Review Pathologist

**PUBLICATIONS AND PRESENTATIONS (contd.)**

Humphreys S.H., Dua P., Francke-Carroll S., Bolger P.M., Calamus: Reassessment of Carcinogenicity. *Toxicological Sciences* 66, 1-S, 268, 2002.

Francke S., Orosz C.G., Hsu J, and Mathes L.E.: Immunomodulatory Effect of Zidovudine (ZDV) on Cytotoxic T Lymphocytes Previously Exposed to ZDV. *Antimicrob Agents Chemother* Sept; 46 (9): 2865-71, 2002.

Francke-Carroll, S., Montgomery J.E., Hines F.A., and Magnuson B.A.: The Effect of a Dietary Curcumin Supplement on the Development of Histopathological Age-associated Changes in Male Azoxymethane-Treated F344 Rats. Presented at the twenty-first Annual Symposium of the Society of Toxicologic Pathology, Denver, CO, June. 2-6, 2002.

Francke S., Orosz C.G., Hayes K.A. and Mathes L.E.: Effect of Zidovudine on the primary cytolytic T-lymphocyte response and T-cell effector function. *Antimicrob Agents Chemother* Jul; 44(7): 1900-5, 2000.

Hayes K.A, Phipps A, Francke S. and Mathes L.E.: Antiviral therapy reduces viral burden but does not prevent thymic involution in young cats infected with feline immunodeficiency virus. *Antimicrob Agents Chemother* Sep; 44(9): 2399-2405, 2000.

Mathes L.E., Hayes K.A., Francke S. and Phipps A.: Comparison of pathogenesis of the Mount Airy strain of feline immunodeficiency virus (FIV-MD) in pediatric and adult cats. Presented at the Third International Feline Retrovirus Research Symposium, Ft. Collins, CO, March 6-9, 1998.

Francke S. Evaluation of the Immunomodulatory effects of the anti-retroviral drug Zidovudine (AZT). Presented in partial fulfillment of the requirements for the degree Doctor of Philosophy in the Graduate School of The Ohio State University. The Ohio State University, Columbus, OH, USA, 1996.

Francke, S., Hayes K.A., Orosz C.G., and Mathes L.E.: Frequency Analysis of the Immunosuppressive effect of Zidovudine (AZT) on murine lymphocyte function in vitro by Limiting Dilution Analysis (LDA). Presented at the forty-seventh Annual Meeting of The American College of Veterinary Pathologists, Seattle, WA, Dec. 2-6, 1996.

Hayes, K.A., Francke S., Phipps A and Mathes L.E.: AZT therapy in adult cats chronically infected with FIV-MD. Presented at the Third International Feline Retrovirus Research Symposium, Ft. Collins, Co., March 5-9, 1996.

Francke S. and Capen C.C.: Undifferentiated carcinoma in the anterior mediastinum of a dog. Presented at the Eastern North American Veterinary Diagnostic Pathology Conference, Cobleskill, NY, Oct. 21-22, 1995.

Hayes K.A., Wilkinson J.G., Frick R., Francke S. and Mathes L.E.: Early suppression of viremia by ZDV does not alter the spread of feline immunodeficiency virus infection in cats. *J Acqu Immune Syndr & Hum Retrovir* 9:114-22, 1995.

Francke, S. Histological and immunohistological evaluation of the spleen in Balb/cJ (H-2<sup>d</sup>) mice following infection with *Coxiella burnetii*. (*Histologische und immunohistologische Untersuchung der Milz von Balb/cJ (H-2<sup>d</sup>)-Maeusen nach Infektion mit Coxiella burnetii*): Inaugural - Dissertation, Veterinary Medicine, Justus-Liebig-University, Giessen, Germany, 1991.

# PETER GREAVES MBChB FRCPath

*Dr Greaves is a medical graduate trained in laboratory medicine, specialising in human and experimental histopathology and toxicology. He has over twenty-five years experience in human and experimental pathology as well as toxicology, pre-clinical drug safety evaluation and drug development. He advises both pharmaceutical companies and government in these areas.*

## PROFESSIONAL HISTORY:

### CONSULTING PATHOLOGIST

**March 2005 – present:**

*Advises on preclinical drug safety evaluation and toxicological pathology. Engaged in research in toxicological pathology, carcinogenesis and cancer chemoprevention. Member of the Committee on Carcinogenicity, United Kingdom*

### MEDICAL RESEARCH COUNCIL TOXICOLOGY UNIT, LEICESTER

**March 2000 – February 2005: Senior Research Scientist & Head of Pathology.**

*Responsibility for the histopathological study of disease models and adverse hepatic effects of drugs in obesity in combination with genetic analysis, laser capture dissection microscopy, in situ hybridisation and immunocytochemistry.*

### ASTRAZENECA (FORMERLY ZENECA, ICI PHARMACEUTICALS), ALDERLEY PARK, CHESHIRE

**March 1990 - February 2000: Head of Safety of Medicines Group**

*Responsibility for all preclinical safety studies and kinetics and metabolism work with approximately 300 staff in the UK and US in support of the discovery and development of novel drugs for all of ex-ZENECA Pharmaceuticals.*

### ZENECA (FORMERLY ICI) PHARMACEUTICALS, ALDERLEY PARK, CHESHIRE

**January 1989 - February 1990: Head of Pathology**

*Responsibility for a group of 80 staff conducting histopathological evaluation of toxicity studies.*

### PARKE-DAVIS RESEARCH INSTITUTE, MISSISSAUGA, ONTARIO, CANADA

**January 1987 - December 1988: Director of Research Institute**

*Responsibility for the Sheridan Park Research Laboratory (60 staff) undertaking preclinical safety studies for Parke-Davis Research centred at Ann Arbor, Michigan.*

### WELLCOME RESEARCH LABORATORIES, BECKENHAM, KENT, ENGLAND

**January 1985 - December 1986: Head of Toxicology and Metabolism**

*Responsibility for drug safety evaluation, preclinical drug kinetics and radiochemistry at the Beckenham site (50 staff), in collaboration with Experimental Pathology and Toxicology at Research Triangle Park site.*

### CENTRE DE RECHERCHE, LABORATOIRES PFIZER, AMBOISE, FRANCE

**September 1981 - December 1984: Director of Pathology**

**April 1979 - August 1981 - Pathologist**

**WESTMINSTER HOSPITAL MEDICAL SCHOOL & ST STEPHEN'S HOSPITAL,  
LONDON**

**September 1976 - March 1979 - Senior Registrar in Histopathology  
February 1975 - February 1976 - Registrar in Histopathology**

**MEDIZINISCHE HOCHSCHULE, HANNOVER, GERMANY.  
February 1976 - September 1976 - Assistant in Pathology**

**NEWCASTLE GENERAL HOSPITAL, NEWCASTLE-UPON-TYNE  
September 1972 - February 1975 - Senior House Officer in Pathology**

**GRAVESEND HOSPITAL, KENT  
October 1972 - May 1972 - House Physician**

**CHICHESTER HOSPITAL, WEST SUSSEX  
February 1971 - August 1971 - House Surgeon**

**EDUCATION AND DEGREES:**

- \* MBChB University of Birmingham, England, 1969
- \* MRCPath in human histopathology, Royal College of Pathologists, London, 1977
- \* FRCPath in histopathology & toxicology, Royal College of Pathologists, London, 1989
- \* GMC Registration in Morbid Anatomy and Histopathology under the European Specialist Medical Qualifications order 1995 (number 1491454)
- \* Medical Defence Union membership (membership number 095078D)

**OTHER ACTIVITIES:**

- \* Member of the *Committee on Carcinogenicity*, United Kingdom 2008-present
- \* Member of *International Life Sciences Institute (ILSI) – Europe* project on data selection for modelling of substances that are genotoxic and carcinogenic 2009-2011
- \* Chairman of *International Harmonization of Nomenclature and Diagnostic Criteria* committee for rodent soft tissue pathology 2009-present
- \* Member of the *Veterinary Products Committee* of the United Kingdom 2003-2007
- \* Member of the editorial board for *Toxicologic Pathology* 2002-2006
- \* Member of the editorial board for *Experimental & Toxicologic Pathology* 2000-2007.
- \* Chairman of *Zeneca Leisure* 1996-1999: This group managed all the company leisure activities, clubs and leisure facilities, turnover £1 million per annum
- \* Member of Personnel steering group for *Zeneca R&D* in the UK 1996-1999
- \* Member of Health & Safety Steering Committee for the Alderley Park R&D site 1996-1999
- \* Biological Safety Officer, MRC Toxicology Unit 2000-2003

**Date:** 21 July 2010

## PUBLICATIONS:

### Books:

Greaves P. and Faccini J.M. (1992): Rat Histopathology: A Glossary for Use in Toxicity and Carcinogenicity Studies, *2<sup>nd</sup> edition*. Elsevier, Amsterdam.

Greaves P. (2007): Histopathology of Preclinical Toxicity Studies: Interpretation and Relevance in Drug Safety Evaluation. Elsevier, Amsterdam. *3<sup>rd</sup> edition*.

### Main scientific papers:

Greaves P., Filipe M.I. and Branfoot A.C. (1980): Transitional mucosa and survival in human colorectal cancer. *Cancer*, **46**, 764-770.

Greaves P. and Faccini J.M. (1981): Fibrous histiocytic neoplasms spontaneously arising in rats. *Br.J.Cancer*, **43**, 402-411.

Greaves P., Martin J. and Masson M-T. (1982): Spontaneous rat malignant tumors of fibrohistiocytic origin. An ultrastructural study. *Vet.Pathol.*, **19**, 497-505.

Greaves P and Rabémampianina Y. (1982): Choice of rat strain: A comparison of the general pathology and tumour incidence in 2-year old Sprague-Dawley and Long-Evans rats. In: New Toxicology for Old, *Arch.Toxicol.*, Suppl 5, 298-303.

Villanove F. and Greaves P. (1983): Sialoglycoconjugates in normal and neoplastic rat liver: A histochemical study. *Pathol.Res.Pract.*, **178**, 171.

Michel M.C., Greaves P., Martin J. and Greaves P. (1983): Etude ultrastructurale des lymphomes malins non Hodgekiniens gastrointestinaux spontanés chez le hamster Syrien (*Mesocricetus auratus*). *Biol.Cell.*, **48**, 10a.

Greaves P., Martin J., Michel M.C. and Mompon P. (1984): Cardiac hypertrophy in dog and rat induced by oxfenicine an agent which modifies muscle metabolism. In: Diseases, Metabolism and Reproduction in the Toxic Response to Drugs and Other Chemicals. *Arch.Toxicol.*, Suppl. 7, 488-493.

Irisarri E., Kessedjian M.J., Charuel C., Faccini J.M., Greaves P., Monro A.M., Nachbaur J. and Rabémampianina Y. (1984): The preclinical toxicity of Dazoxiben, a specific inhibitor of thromboxane A2 synthetase. In: Disease, Metabolism and Reproduction in the Toxic Response to Drugs and Other Chemicals. *Arch.Toxicol.*, Suppl. 7, 363-364.

Taradach C. and Greaves P. (1984): Spontaneous eye lesions in laboratory animals. Incidence in relation to age. *CRC Crit.Rev.Toxicol.*, **12**, 121-147.

Greaves P. and Boiziau J.L. (1984): Altered patterns of mucin secretion in gastric hyperplasia in mice. *Vet.Pathol.*, **21**, 224-228.

Greaves P., Filipe M.I., Abbas S. and Ormerod M.G. (1984): Sialomucins and carcinoembryonic antigen in the evolution of colorectal cancer. *Histopathology*, **8**, 825-834.

Irisarri E., Kessedjian M.J., Charuel C., Faccini J.M., Greaves P., Monro A.M., Nachbaur J. and Rabémampianina Y. (1985): Dazoxiben, a prototype inhibitor of thromboxane synthesis, has little toxicity in laboratory animals. *Hum.Toxicol.*, **4**, 311-315.

Higgins A.J., Faccini J.M and Greaves P. (1985): Coronary hyperemia and cardiac hypertrophy following inhibition of fatty acid oxidation. Evidence of a regulatory role for cytosolic phosphorylation potential. In: N.S. Dhalla and D.J. Hearse (Eds), *Advances in Myocardiology*, Vol. 6, pp. 329-338, Plenum.

- Greaves P., Martin J.M. and Rabéampianina Y. (1985): Malignant fibrous histiocytoma in rats at site of implanted millipore filters. *Am.J.Pathol.*, **120**, 207-214.
- Spencer A.J. Andreu M. and Greaves P. (1986): Neoplasia and hyperplasia of pancreatic endocrine tissue in the rat: An immunocytochemical study. *Vet.Pathol.*, **23**, 11-15.
- Greaves P., Irisarri E. and Monro A.M. (1986): Hepatic foci of cellular and enzymatic alteration and nodules in rats treated with clofibrate or diethylnitrosamine followed by phenobarbitone: Their rate of onset and their reversibility. *J.N.C.I.*, **76**, 475-484.
- Masson M.T., Villanove F. and Greaves P. (1986): Histological demonstration of wheat germ lectin binding sites in normal and ANIT-treated rats. *Arch.Toxicol.*, **59**, 121-123.
- Spencer A. and Greaves P. (1987): Polyarteritis in a beagle dog colony. *J.Comp.Pathol.*, **97**, 122-128.
- Mompon P., Greaves P., Irisarri E., Monro A.M. and Bridges J.W. (1987): A cytochemical study of the livers of rats treated with diethylnitrosamine/phenobarbital, with benzidine/phenobarbital, with phenobarbital, or with clofibrate. *Toxicology*, **46**, 217-236.
- Greaves P. (1987): Safety evaluation prior to administration of drugs to man. *Lab.Anim.*, **21**, 166.
- Greaves P. (1989): Malignant fibrous histiocytoma, rat. In: Monograph on Pathology of Laboratory Animals. Integument and Mammary Glands. T.C. Jones, U.Mohr and R.D. Hunt (Eds), pp.106-112. Springer-Verlag, Berlin.
- de la Iglesia F.A. and Greaves P. (1989): Role of toxicokinetics in drug safety evaluations. In: Toxicokinetics and New Drug Development. A. Yacobi J.P. Skelly and Y.K. Batra (Eds), chap 2, pp 21-32, Pergamon Press, New York.
- Macallum G.E., Smith G.S., Barsoum N.J., Walker R.M. and Greaves P. (1989): Renal and hepatic toxicity of a benzopyran-4-one in the cynomolgus monkey. *Toxicology*, **59**, 97-108.
- Albassam M.A., Houston B.J., Greaves P. and Barsoum N.J. (1989): Polyarteritis in a beagle. *J.Am.Vet.Med.Assoc.*, **194**, 1595-1597.
- Macallum G.E., Walker R.M., Barsoum N.J., Smith G.S. and Greaves P. (1989): Preclinical toxicity studies of an adenosine agonist, CI-936. *Toxicologist*, **9**, 178.
- Walker R.M., Clarke D.W., Smith G.S., Macallum G.E. Barsoum N.J. and Greaves P. (1989): Hepatotoxicity of tacrine in animal models. *Toxicologist*, **9**, 197.
- Greaves P. and Barsoum N. (1990): Tumours of soft tissues. In: Pathology of Tumours of Laboratory Animals, Vol 1, Tumours of the Rat. V.S. Turusov and U. Mohr (Eds), *2nd Edition*, pp 597-623, IARC, Lyon.
- Westwood F.R., Greaves P. and Iswaran T.J. (1990): Arterial and venous changes in rats following administration of a phosphodiesterase inhibitor. *Toxicol.Pathol.*, **18**, 699.
- Westwood F.R., Iswaran T.J. and Greaves P. (1990): Pathologic changes in blood vessels following administration of an inotropic vasodilator (ICI 153,110) to the rat. *Fundam.Appl.Toxicol.*, **14**, 797-809.
- Westwood F.R., Iswaran T.J. and Greaves P. (1991): Long-term effects of an inotropic phosphodiesterase inhibitor (ICI 153,110) on the rat salivary gland, harderian gland and intestinal mucosa. *Toxicol.Pathol.*, **19**, 214-223.
- Greaves P., Faccini, J.M. and Courtney C.L. (1992): Proliferative lesions in soft tissues in rats, MST-1. In: Guides for Toxicologic Pathology, STP/ARP/AFIP, Washington DC.
- Carlton, W.W., Ernst, H., Faccini, J.M., Greaves, P., Krinke, G.L., Long, P.H., Maekawa, A., Newsholme, S.J. and Weisse, G. (1992): Soft tissue and musculoskeletal system. In: Mohr, U., Capen, C.C., Dungworth, D.L., Griesemer,

R.A., Ito, N., and Turusov, V.S. (Eds.) International Classification of Rodent Tumours, Part I, The Rat. IARC Scientific Publication No. 122, Lyon.

Lazenby C.M., Westwood F.R. and Greaves P. (1993): Crescentic cataracts in Alderley Park rats. *Vet.Pathol.*, **30**, 70-74.

Greaves, P., Goonetilleke, R., Nunn, G., Topham, J and Orton, T. (1993): Two year carcinogenicity study of tamoxifen in Alderley Park Wistar-derived rats. *Cancer Res.*, **53**, 3919-3924

Greaves P. (1993): Pathological techniques in toxicology. In: General and Applied Toxicology. B. Ballantyne, T. Marrs, and P. Turner (Eds), vol. 1, chap. 12, pp. 245-265, Stockton Press, New York.

Greaves P. (1995): Pathological techniques in toxicology. In: General and Applied Toxicology. B. Ballantyne, T. Marrs, and P. Turner (Eds), abridged edition, chap. 10, pp. 225-245, Stockton Press, New York.

Greaves P. (1996): The evaluation of potential human carcinogens: A histopathologist's view. *Exp.Toxicol.Pathol.*, **48**, 169-174.

Greaves P. and Seely J.C. (1996): Non-proliferative lesions of soft tissues and skeletal muscle in rats, MST-1. In: Guides for Toxicologic Pathology, STP/ARP/AFIP, Washington, DC.

Greaves P. (1997): Tumors of soft tissues including cardiovascular system. In: Pathology of Neoplasia and Preneoplasia in Rodents. P. Bannasch and W. Gössner (Eds), chap. 12, pp. 183-201, EULEP Color Atlas, vol. 2, Schattauer, Stuttgart.

Greaves P. (1997): Urinary system. In: Target Organ Pathology: A Basic Text. J.A. Turton and J. Hooson (Eds), chap. 4, pp. 99-139, Taylor and Francis, London.

Greaves P. (1998): Patterns of drug-induced cardiovascular pathology in the beagle dog: relevance for humans. *Exp.Toxicol.Pathol.*, **50**, 283-293.

Greaves P. (1999): Pathological techniques in toxicology. In: General and Applied Toxicology. B. Ballantyne T. Marrs and T. Syversen, (Eds), chap. 16, pp. 335-353, 2<sup>nd</sup> Edition. Stockton Press, New York.

Greaves P. (2000): Patterns of cardiovascular pathology induced by diverse cardioactive drugs. *Toxicol.Lett.*, **112-113**, 547-552.

Ernst, H., Carlton, W.W., Courtney, C., Rinke, M., Greaves, P., Isaacs, K.R., Krinke, G., Konishi, Y., Mesfin, G.M. and Sandusky, G. (2001): Soft tissue and skeletal muscle. In: Mohr, U. (Ed), International Classification of Rodent Tumours. The Mouse, pp. 361-388. Springer Verlag, Heidelberg.

Pyrah, I.T., Kalinowski, A., Jackson, D., Davies, W., Aldridge, A. and Greaves, P. (2001): Pathology of two structurally related inhibitors of oxidosqualene cyclase in the dog and mouse. *Toxicol.Pathol* **29**, 174-179.

Greaves, P., Edwards, R., Cohen, G.M. and MacFarlane, M. (2001): Have you seen this? Diffuse hepatic apoptosis. *Toxicol.Pathol.*, **29**, 398-400.

Parrott, E., Butterworth, M., Green, A., White I.N.H. and Greaves P. (2001): Adenomyosis - a result of disordered stromal differentiation. *Am.J.Pathol.*, **159**, 623-630.

Green, A.R., Parrott, E.L., Butterworth, M., Jones, P.S., Greaves, P. and White I.N.H. (2001): Comparisons of the effects of tamoxifen, toremifene and raloxifene on enzyme induction and gene expression in the ovariectomized rat uterus. *J.Endocrinol.*, **170**, 555-564.

Edwards, R., Colombo, T. and Greaves P. (2002): Have You Seen This?" Peliosis Hepatis. *Toxicol.Pathol.*, **30**, 521-523.

Donald, S., Verschoyle, R., Edwards, R., Judah, D.J., Davies R., Riley J., Dinsdale, D., Lazaro L.L., Smith, A.G., Gant, T.W. Greaves, P. and Gescher, A.J. (2002): Hepatobiliary damage and changes in hepatic gene expression caused by the antitumor drug ecteinascidin-743 (ET-743) in the female rat. *Cancer Res.* **62**, 4256-4262.

Gant, T.W., Baus, P.R., Clothier, B., Riley, J., Davies, R., Judah, D.J., Edwards, R.E., George, E., Greaves, P. and Smith, A.G. (2003): Gene expression profiles associated with inflammation, fibrosis and cholestasis in mouse liver after griseofulvin. *Environ. Health Persp.* **111**, 847-853

Green, A.R., Edwards, R.E., Greaves, P. and White, I.N.H. (2003): Comparison of the effect of oestradiol, tamoxifen and raloxifene on nerve growth factor alpha expression in specific neonatal mouse uterine cell types using laser capture microdissection. *Journal of Molecular Endocrinology* **30**, 1-11.

Jones, H.B., Macpherson, A., Siddall, R., Betton, G.R., Davis, A.S. and Greaves, P. (2003): Endothelin antagonist-induced coronary and systemic arteritis in the beagle dog. *Toxicol. Pathol.* **31**, 263-272.

Donald, S. Verschoyle, R.D., Greaves, P., Gant, T.W., Colombo, T., Zaffaroni, M., Frapolli, R., Zucchetti, M., D'Incalci, M., Meca D., Riccardi, R., Lopez-Lazaro, L., Jimeno, J. and Gescher, A.J. (2003): Complete protection by high-dose dexamethasone against the hepatotoxicity of the novel antitumor drug Yondelis (ET-743) in the Rat. *Cancer Res.* **63**, 5902-5908.

Damment, S.J.P., Greaves, P. and Downs, N. (2003): The toxicology of lanthanum carbonate, a new non-aluminium, non-calcium phosphate binder. *Journal of the American Society of Nephrology* **14**, 204A

Verschoyle, R.D., Edwards, R., Nolan, B. and Greaves, P. (2004): Articular chondromatosis and chondroid metaplasia in transgenic TAg mice. *Toxicol. Pathol.* **32**:22-25.

Donald, S., Verschoyle, R.D., Greaves, P., Orr, S., Lopez-Lazaro, I., Jimeno, J. and Gescher A.J. (2004): Comparison of four modulators of drug metabolism as protectants against the hepatotoxicity of the novel antitumor drug yondelis (ET-743) in the female rat and in hepatocytes *in vitro*. *Cancer Chemother. Pharmacol.* **53**, 305-312.

Greaves, P., Williams, A. and Eve M. (2004): First dose of potential new medicines to humans: learning from animals. *Nature Rev Drug Discovery* **3**, 226-236.

Donald, S., Verschoyle, R. D., Greaves, P., Colombo, T., Zucchetti, M., Falcioni, C., Zaffaroni, M., D'Incalci, M., Manson, M.M., Jimeno, J., Steward, W.P. and Gescher A.G. (2004): The chemopreventive agent indole-3-carbinol protects female rats against the hepatotoxicity of the antitumor drug yondelis (ET-743) without compromising efficacy in a rat mammary carcinoma. *Int. J. Cancer* **111**, 961-967.

Cai, H., Hudson, E.A., Mann, P., Verschoyle, R.D., Greaves, P., Manson, M.M. Steward W.P. and Gescher A.J. (2004): Growth-inhibitory and cell cycle-arresting properties of the rice bran constituent tricin in human-derived breast cancer cells *in vitro* and in nude mice *in vivo*. *Brit. J. Cancer* **91**, 1364-1371.

Gant, T.W., Greaves, P., Smith, A.G. and Gescher A. (2005): Toxicogenomics applied to understanding cholestasis and steatosis in the liver. In: Jürgen Bortak (Ed). *Toxicogenomics*, chap. 15, pp 369-394, Wiley-VCH Verlag, Weinheim.

Green, A.R. Styles, J.A., Parrott, E.L., Gray, D., Edwards, R.E., Smith, A.G., Gant, T.W. Greaves, P., Al-Azzawi, F. and White, I.N.H (2005): Neonatal tamoxifen treatment of mice leads to adenomyosis but not uterine cancer. *Expt. Toxicol. Pathol.* **56**, 255-263.

Davies, R., Schuuman A., Barker, C.R., Clothier B., Chernova, T., Higginson, F.M., Judah, D.J., Dinsdale, D., Edwards, R.E. Greaves, P., Gant, T.W. and Smith A.G. (2005). Hepatic gene expression in protoporphyrin Fech mice is associated with cholestatic injury but not a marked depletion of the heme regulatory pool. *Am.J.Pathol.* **166**, 1041-1053.

- Greaves, P., Clothier, B., Davies, R., Higginson, F.M., Edwards, R.E., Dalton, T.P., Nebert, D.W. and Smith, A.G. (2005): Uroporphyrin and hepatic carcinogenesis induced by polychlorinated biphenyls-iron interaction: absence in the *Cyp1a2(-/-)* knockout mouse. *Biochemical and Biophysical Research Communications* **331**, 147-152
- Cai, H., Al-Fayez, M., Tunstall, R.G., Platten, S., Greaves, P., Steward, W.P. and Gescher, A.J. (2005): The rice bran constituent tricin potently inhibits cyclooxygenase enzymes and interferes with intestinal carcinogenesis in *ApcMin* mice. *Mol.Cancer Ther.*, **4**, 1287-1292.
- Greaves, P. (2005): Animals in the safety testing of new therapies. *School Science Review*, **87**, 99-104.
- Verschoyle, R.D., Greaves, P., Cai, H., Borkhardt, A., Broggini, M., D'Incalci, Riccio, E., Doppalapudi, R., M., Kapetanovic, I., Steward, W.P. and Gescher, A.J. (2006): Preliminary safety evaluation of the putative cancer chemopreventive agent tricin, a naturally occurring flavone. *Cancer Chemother.Pharmacol.*, **57**, 1-6.
- Greaves, P. and White, I.N. (2006): Experimental adenomyosis. *Best Practice & Research Clinical Obstetrics & Gynaecology*, **20**, 503-510.
- Ridd, K., Zhang, S-D., Edwards, R.E., Davies, R., Greaves, P., Wolfreys, A., Smith A.G. and Gant, T.W. (2006): Association of gene expression with sequential proliferation, differentiation and tumour formation in murine skin. *Carcinogenesis*, **8**, 1556-1566
- Verschoyle, R.D., Greaves, P., Cai, H., Edwards, R.E. Steward, W.P. and Gescher, A.J. (2007): Evaluation of the cancer chemopreventive efficacy of rice bran in genetic mouse models of breast, prostate and intestinal carcinogenesis. *Br.J.Cancer*, **96**, 248-254.
- Kaur, S., Greaves, P., Cooke, D., Edwards, R., Steward, W.P., Gescher, A.J. and Marczylo, T.H. (2007): Breast cancer prevention by green tea catechins and black tea theaflavins in the C3(1) SV40 T,t antigen transgenic mouse model is accompanied by increased apoptosis and a decrease in oxidative DNA adducts. *Journal of Agricultural and Food Chemistry*, **55**, 3378-3385.
- Razvi, N., Greaves, P., Styles, J., Edwards, R., and White, I. N.H. (2007): Absence of uterine tumours in CD-1 mice treated neonatally with subcutaneous tamoxifen or 4-hydroxyoestradiol. *Experimental and Toxicologic Pathology*, **59**, 177-185
- Hardisty, J., Elwell, M., Ernst, H., Greaves, P., Kolenda-Roberts, H., Malarkey, D., Mann, P.C., Tellier, P. (2007): Histopathology of hemangiosarcomas in mice and hamsters and liposarcomas/fibrosarcomas in rats associated with PPAR agonists. *Toxicologic Pathology*, **35**, 928-941.
- Pathak, S.K., Singh, R., Verschoyle, R.D., Greaves, P., Farmer, P.B., Steward, W.P. J K Mellon, J.K., Gescher, A.J., Sharma, R.A. (2008): Androgen manipulation alters oxidative DNA adduct levels in androgen-sensitive prostate cancer cells grown *in vitro* and *in vivo*. *Cancer Letters*, **261**, 74-83
- Davies, R., Clothier, B., Robinson, S., Edwards, R., Greaves, P., Luo, J-L., Gant, T., Chernova, T. and Smith, A. (2008): Essential role of the AH-receptor in the dysfunction of heme metabolism induced by 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. *Chemical Research in Toxicology*, **21**, 330-340.
- Greaves, P. (2008): Preclinical testing. In: *Encyclopedia of Cancer*, 2<sup>nd</sup> edition, (ed. M. Schwab), Springer-Verlag, Heidelberg.
- Verschoyle, R.D., Greaves, P., Patel, K., Marsden, D., Brown, K., Steward, W.P. and Gescher, A.J. (2008): Evaluation of the cancer chemopreventive efficacy of silybinin in genetic mouse models of prostate and intestinal carcinogenesis: Relationship with silybinin levels. *European Journal of Cancer*, **21**, 898-906.
- Teichert, F., Verschoyle, R.D., Greaves, P., Edwards, R.E., Teahan, O., Jones, D., Wilson, I.D., Farmer, P.B., Steward, W.P., Gant, T.W. and Gescher, A.J., Keun, H.C (2008): Metabolic profiling of transgenic adenocarcinoma of mouse

prostate (TRAMP) tissue by  $^1\text{H}$ -NMR analysis—evidence for unusual phospholipid metabolism. *Prostate*, **68**, 1035–1047.

Teichert, F., Verschoyle, R.D., Greaves, P., Thorpe, J.F., Mellon, J.K., Steward, W.P., Farmer, P.B., Gescher, A.J. and Singh, R. (2009): Determination of 8-oxo-2-deoxyguanosine and creatinine in murine and human urine by liquid chromatography-tandem mass spectrometry: application to chemoprevention studies. *Rapid Communications in Mass Spectrometry*, **23**, 258–266.

Greaves P. (2009): Pathological techniques in toxicology. In: General and Applied Toxicology, pp 691–706, B. Ballantyne T. Marrs and T. Syversen, (Eds), **3<sup>rd</sup> Edition**. John Wiley and Sons Ltd., Chichester.

[In press]



Experimental Pathology Laboratories, Inc.

**JERRY F. HARDISTY  
CHIEF EXECUTIVE OFFICER/SENIOR PATHOLOGIST**

**EDUCATION:**

Iowa State University, Pre-Veterinary, 1965-1967

Iowa State University, D.V.M., 1971

Certified by the American College of Veterinary Pathologists, 1976

Adjunct Associate Professor at the School of Veterinary Medicine,  
NC State University, 1983

**PRESENT POSITION AND EXPERIENCE:**

2010 - Present. Chief Executive Officer/Veterinary Pathologist, Experimental Pathology Laboratories, Inc., Research Triangle Park, North Carolina

Responsible for the overall implementation of the strategic goals and objectives of EPL. Provide leadership toward the company's philosophy, mission, strategy, and goals and objectives. Direct the company's business development and marketing efforts. Serve as the Principal Investigator as a Study Pathologist, Peer Review Pathologist and Chairperson for Pathology Working Groups and Scientific Advisory Panels.

1998 - 2010. President and Veterinary Pathologist, Experimental Pathology Laboratories, Inc., Research Triangle Park, North Carolina

Responsible for overall management and direction of contract research pathology laboratories in Virginia and North Carolina. The company serves both government and university research and the safety assessment programs of the pharmaceutical, chemical, and cosmetic industries.

1994 - 1998. Vice President, Operations and Pathologist, Experimental Pathology Laboratories, Inc., Research Triangle Park, North Carolina

Responsible for overall management and direction of pathology research laboratories in North Carolina and Virginia.

1978 - 1994. Director and Pathologist, Experimental Pathology Laboratories, Inc., Research Triangle Park, North Carolina

Responsible for the project management, direction and technical supervision of the North Carolina branch of EPL. Responsible for the microscopic evaluation of toxicological studies. Responsible for the National Toxicology Program's Pathology Quality Assessment Program and Operations of the NTP Archives.

1976 - 1978. Pathologist/Project Manager, Experimental Pathology Laboratories, Inc., Herndon, Virginia

Responsible for the management of EPL's Carcinogenesis Support Laboratory. Project Manager of a program to provide Tracor Jitco with Quality Assurance in the NCI Carcinogenesis Testing Program. Technical supervision of a program to provide pathology support services to the Carcinogenesis Program of the National Cancer Institute. Responsible for the microscopic evaluation of tissues from experimental animals used in a variety of toxicological studies.



Experimental Pathology Laboratories, Inc.

## JERRY F. HARDISTY, DVM, DACVP

### PRESENT POSITION AND EXPERIENCE – Continued

1972-1976      Research Pathologist, Veterinary Pathology Branch, Biomedical Laboratory, Edgewood Arsenal, Maryland

Dr. Hardisty was a preceptor in the U.S. Army preceptorship program in Veterinary Pathology. During this time he performed gross and microscopic diagnoses of spontaneous disease and changes produced by experimental procedures in laboratory animals. He prepared reports describing and interpreting these experimental results.

During this time he was principal investigator for the reproductive, mutagenic, teratogenic studies performed at the laboratory. This work consisted of revising previous experimental protocols and designing new experimental protocols to be utilized at the laboratory. The experimental design employed required the gross examination of pregnant female rats and fetuses for evidence of fetal toxicity and teratogenesis. He trained biological technicians to perform timed matings in rats, examine serially sectioned fetuses for malformations, and to examine fetal skeletons for prenatal abnormalities.

1971-1972      Attending Veterinarian, Division of BioSensor Research,  
Walter Reed Army Institute of Research

Dr. Hardisty studied the radiographic and morphologic lesions of several musculoskeletal diseases of the German Shepherd Dog. In association with Dr. Wayne Riser, he investigated the pathogenesis and possible genetic relationship of canine hip dysplasia, eosinophilic panosteitis and ununited anconeal processes in an attempt to reduce their incidence through a selective breeding program.

### PROFESSIONAL MEMBERSHIPS:

Diplomate, American College of Veterinary Pathologists

ACVP Subspecialty in Toxicologic Pathology

American College of Toxicology

Society of Toxicology

Society of Toxicologic Pathologists

British Society of Toxicologic Pathologists

International Academy of Toxicologic Pathology

American Veterinary Medical Association

North Carolina Society of Toxicology

Charles Louis Davis, D.V.M. Foundation

The Society of Phi Zeta

The Society of Gamma Sigma Delta

The Fraternity of Alpha Zeta

The Fraternity of Omega Tau Sigma

American Association for the Advancement of Science

Standardized System of Nomenclature and Diagnostic Criteria (SSNDc), The



Experimental Pathology Laboratories, Inc.

## JERRY F. HARDISTY, DVM, DACVP

### PROFESSIONAL ACTIVITIES – Continued

Society of Toxicologic Pathologists, 1987-1995.  
Executive Committee, The Society of Toxicologic Pathologists, 1994- 1998.  
Executive Committee Chairman, The Society of Toxicologic Pathologists, 1997-1998.  
Joint Committee for STPs/ILSI on International Standardization of  
Nomenclature and Diagnostic Criteria for Toxicologic Pathology, 1994-1995,  
Co-Chairman 1995-Present.  
President-Elect, The Society of Toxicologic Pathologists, 1999-2000.  
President, The Society of Toxicologic Pathologists, 2000-2001.  
Past President, The Society of Toxicologic Pathologists, 2001-2002.  
Long Range Planning Committee, American College of Toxicology, 2002.  
North American Director, International Academy of Toxicologic Pathology, 2002.  
FDA Clinical Pharmacology Subcommittee of the Advisory Committee for  
Pharmaceutical Sciences, FDA Center for Drug Evaluation and Research, 2003.

### EDITORIAL REVIEW BOARD:

International Agency for Research on Cancer (WHO), Classification of Rodent Tumors, Part II, The Mouse, 1995-2001.

Editorial Review Board for *Fundamental and Applied Toxicology*, Society of Toxicology Board of Publications, 1996-1998.

Editorial Review Board for *Toxicological Sciences*, Society of Toxicology Board of Publications, 1998-2004.

Editorial Review Board for *Experimental and Toxicologic Pathology*, 2000.

Editorial Board of *Toxicologic Pathology*, 2006-2008.

### PUBLICATIONS AND PAPERS:

Defining a Noncarcinogenic Dose of Recombinant Human Parathyroid Hormone 1-84 in a 2-Year Study in Fischer 344 Rats. The Society of Toxicologic Pathology

Factors predisposing to urolithiasis in feedlot cattle. Hardisty JF and Dillman RC. The Iowa State University Veterinarian, Iowa State University, Ames, Iowa, 33(2), 77-81, 1971.

Reduction of frequency of hip dysplasia in military dogs. Riser WH, Hardisty JF and Castleberry MW. In Proceedings, Canine Hip Dysplasia Symposium and Workshop, OFA, Columbia, MO. 1972.

Genetic influence of the male on the incidence of canine hip dysplasia. Hardisty JF, Scalera SE., Castleberry MW and Riser WH. In Proceedings, Canine Hip Dysplasia Symposium and Workshop, OFA, Columbia, MO. 1972.



Experimental Pathology Laboratories, Inc.

JERRY F. HARDISTY, DVM, DACVP

**PUBLICATIONS AND PAPERS – Continued**

Evaluation of the effects of chemical compounds on the reproductive system of rats. Hardisty JF. Presented at the Biomedical Laboratory Review and Analysis, April 1975.

Reproductive studies with quint essence compounds. Hardisty JF, Presented at the Biomedical Laboratory Review and Analysis of Quint Essence, January 1976.

Effects of KZ/IP mixture on the reproductive system. Hardisty JF and Pellerin RJ. Edgewood Arsenal Technical Report, 1976.

Reproductive studies with diisopropylmethylphosphate in rats. Hardisty JF, Pellerin RJ, Biskup RF and Manthei JH. Edgewood Arsenal Technical Report ARCSL TR 77037, May 1977.

Quality assurance in pathology. Hardisty JF, Ward JM and Griesemer RA. NCI-NCTR Pathology Workshop, Bethesda, MD, June 1978.

Mononuclear cell leukemia in Fischer 344 rats. Hardisty JF. NCI-NCTR Pathology Workshop, Bethesda, MD, June 1978.

Quality assurance for pathology in rodent carcinogenesis tests. Ward JM, Goodman DG, Griesemer RA, Hardisty JF, Schueler RL, Squire RA and Strandberg JD. Journal of Environmental Pathology and Toxicology, 2, 371-378, Nov.-Dec. 1978.

Neoplasms and pigmentation of the thyroid gland in F-344 rats exposed to 2,4-diaminoanisole sulfate, a hair dye component. Ward JM, Stinson, SF, Hardisty JF, Cockrell BY and Hayden DW. Journal of the National Cancer Institute, Vol. 62, No. 4, 1979. Apr;62(4) 1067-73

Renal carcinogenic and nephrotoxic effects of the flame retardant TRIS[(2,3-dibromopropyl) phosphate] in F-344 rats and B6C3F1 mice. Reznik G, Ward JM, Hardisty JF and Russfield A. Journal of the National Cancer Institute, Vol. 63, No. 1, July 1979.

Correlation between gross observations of tumors and neoplasms diagnosed microscopically in carcinogenesis bioassays in rats. Kulwich BA, Hardisty JF, Gilmore CE and Ward JM. Journal of Environmental Pathology and Toxicology, 3, 281-287, December 1979.

Evaluation of procedures suggested for reducing the pathology workload in a carcinogenesis testing program. Hardisty JF, Ward JM, Douglas JF and Fears TR. Journal of Environmental Pathology and Toxicology, 3, 167-176, December 1979.

Cancer induction following single and multiple exposures to a constant amount of vinyl chloride monomer. Hehir RM, McNamara BP, McLaughlin J, Willigan DA, Bierbower G and Hardisty JF. Presented for the conference to re-evaluate the Toxicology of Vinyl Chloride Monomer, Polyvinyl Chloride and Structural Analogues on March 20-21, 1980, at the National Institute of Health, Bethesda, MD.

Cancer induction following single and multiple exposures to a constant amount of vinyl chloride monomer. Hehir RM, McNamara BP, McLaughlin J, Willigan DA, Bierbower G and Hardisty JF. Environmental Health Perspectives, 41, 63-72, October 1981.

Carcinogenesis bioassay of 2,6-Xylylidine in rats. Hardisty JF, Montgomery CA and Kornreich M. The Toxicologist, Vol 3, No. 1, March 1983.

Chronic toxicity and oncogenicity bioassay of inhaled toluene in Fischer 344 rats. Gibson JE and Hardisty JF. Fundamental and Applied Toxicology, 3: 315-319, 1983.



JERRY F. HARDISTY, DVM, DACVP

**PUBLICATIONS AND PAPERS – Continued**

Quality assurance in pathology for rodent carcinogenicity tests, by GA Boorman, CA Montgomery, JF Hardisty, SL Eustis, MJ Wolfe and EE McConnell. In: Handbook of Carcinogen Testing, (H Milman and E Weisberger, eds), pp. 345-357. New Jersey: Noyes Publications, 1985.

Systemic effects following inhalation of fog oil obscurant. Hardisty JF, Stead AG, Grose EC and Selgrade MJ. Presented at the North Carolina Chapter of the Society of Toxicology Meeting on February 2, 1985.

Factors influencing laboratory animal spontaneous tumor profiles. Hardisty JF. Toxicologic Pathology , 13, 91-104, 1985.

Pulmonary and hepatic health effects of inhalation of petroleum smoke. Grose EC, Stevens MA, Illing JW, Jaskot RH, Hardisty JF and Stead A. The Toxicologist, Vol 6, No. 1, March 1986.

National Toxicology Program Pathology Quality Assurance Procedures, by J.F.Hardisty and GA Boorman. In: Managing Conduct and Data Quality of Toxicology Studies, (BK Hoover, JK Baldwin and AF Uelner. NIEHS/NTP – CE Whitmire, CL Davies and DW Bristol, eds), pp 263-269. New Jersey: Princeton Scientific Publishing Co. Inc., 1986.

Pulmonary Effects Due to Short Term Exposure to Oil Fog. Selgrade MJK, Hatch GE, Grose EC, Illing JW, Stead AG, Miller FJ, Graham JA, Stevens MA and Hardisty JF. Journal of Toxicological Environmental Health, 1987 21(1-2):173-85.

Arsine: Toxicity data from acute and subchronic inhalation exposures. MP Moorman, CR Moorman, JF Hardisty, SL Eustis, RE Morrissey, HR Sanders and BA Fowler. The Toxicologist, Vol 7, No. 1, February 1987.

Chronic toxicity and oncogenicity study of 2,6 diethylaniline. TG Pullin, RW Naismith, JF Hardisty, EB Whorton Jr. and GL Ter Haar. The Toxicologist, Vol 8, No. 1, February 1988.

Peripheral nerve sheath tumors, rat, by D.M. Walker, V.E. Walker, J.F. Hardisty, KT Morgan and JA Swenberg. In: ILSI Monographs on Pathology laboratory animals, nervous system, Vol 6, (TC Jones, U Mohr and RD Hunt, eds), New York, Springer-Verlag, 1988.

Pulmonary Effects Due to Subchronic Exposure to Oil Fog. Selgrade MK, Hatch GE, Grose EC, Stead AG, Miller FJ, Graham JA, Stevens MA, Hardisty JF. Toxicology and Industrial Health, Vol 6, No. 1, 1990 Jan,6(1):123-43.

Thyroid gland, by JF Hardisty and GA Boorman. In: Pathology of the F344 Rat, (G Boorman, S Eustis, C Montgomery, M Elwell and W MacKenzie, eds), San Diego, Academic Press, 1990.

Oral cavity (pharynx, tongue, gingival teeth), esophagus and stomach, by HR Brown, JF Hardisty and SL Eustis. In: Pathology of the F344 Rat, (G Boorman, S Eustis, C Montgomery, M Elwell and W MacKenzie, eds), San Diego, Academic Press, 1990.

Toxicological pathology: a critical stage in study interpretation; by JF Hardisty and SL Eustis. In: Progress in Toxicology, (D Clayson, I Munro, P Shubik and J Swenberg, eds), Amsterdam, Elsevier, 1990.



Experimental Pathology Laboratories, Inc.

**JERRY F. HARDISTY, DVM, DACVP**

**PUBLICATIONS AND PAPERS – Continued**

Tumors of the skin in the HRA/Skh mouse after treatment with 8-methoxysoralen and UVA radiation. JK Dunnick, PD Forbes, SL Eustis and JF Hardisty. Fund. & Appl. Tox., Vol 16, 92-102, 1991.

Proliferative lesions of the mouse lung: Progression studies in Strain A mice. JF Foley, MW Anderson, GD Stoner, BW Gaul, JF Hardisty and RR Maronpot. Experimental Lung Research, Vol.17, 157-168, 1991.

Lesions of the rodent liver. Hardisty JF. Presented at the Dose Response Relationships for Hepatocarcinogenesis in Medaka Exposed to Waterborne N-Nitrosodiethylamine. Workshop on December 15, 1993.

Procedures for peer review in toxicologic pathology. Hardisty JF. Presented at The Society of Toxicologic Pathologist 13<sup>th</sup> International Symposium on June 5-9, 1994.

Necropsy and histology in toxicologic pathology. Hardisty JF. Presented at Industrial Toxicologic Pathology, University of Illinois at Urbana-Champaign, July 27, 1994.

A comparison of liver tumor diagnoses from seven PCB studies in rats. Moore John A, Hardisty Jerry F, Banas Deborah A and Smith, Mary Alice. Regulatory Toxicology and Pharmacology, Vol 20, 362-370, 1994.

Neoplastic lesions of questionable significance. Hardisty JF. Presented at the 1994 Toxicology Roundtable on October 3, 1994.

Use of nasal diagrams to record nasal lesions. Hardisty JF. Presented at the 1994 Toxicology Roundtable on October 4, 1994.

Morphologic assessment of pathologic changes in the rat larynx. Hardisty JF. Presented at the 1994 Toxicology Roundtable on October 4, 1994.

Pathology peer review and PWG. Hardisty JF. Presented at the 1995 Toxicology Roundtable in Nashville, TN on October 23, 1995

Peer review in toxicology pathology. Ward JM, Hardisty JF, Hailey JR and Street CS. Toxicologic Pathology ISSN:0192-6233, Vol. 23, No. 2, 1995

Computerized pathology data – summary vs. individual. Hardisty JF. Presented at the 1995 Toxicology Roundtable in Nashville, TN on October 24, 1995.

An evaluation of changes in the olfactory epithelium and liver peroxisome proliferation in mice after inhalation exposure to methylethylketoxime. Newton PE, Bolte HF, Lake

BG, Derelanko M, Rinehart WE and Hardisty JF. The Toxicologist, Vol 30, No. 1, Part 2, March 1996.

Peer review of histopathology data. Hardisty JF. Presented at the American College of Toxicology 17th Annual Meeting in King of Prussia, PA on November 11, 1996.

Pathology peer review in assessing carcinogenicity studies. Hardisty JF. Presented at the American College of Veterinary Pathologists' Thirty- First Annual Meeting in Seattle, Washington on December 5, 1996.



Experimental Pathology Laboratories, Inc.

JERRY F. HARDISTY, DVM, DACVP

**PUBLICATIONS AND PAPERS – Continued**

Value of the mouse carcinogenicity bioassay (Summary). Hardisty JF. Toxicologic Pathology ISSN:0192-6233, Vol. 24, No. 6, 1996, pp. 720-721.

Interaction of consultants, contract laboratories and industry-Panel Discussion with HE Black, AM Dahlem, JF Hardisty, TG Terrell. Presented at Industrial Toxicologic Pathology, University of Illinois at Urbana-Champaign, May 19, 1997.

Controversial issues in anatomic pathology. JF Hardisty. Presented at Industrial Toxicologic Pathology, University of Illinois at Urbana-Champaign, May 20, 1997.

Phenolphthalein induces thymic lymphomas accompanied by loss of the p53 wild type allele in heterozygous p53-deficient (+) mice. Dunnick JK, Hardisty JF, Herbert RA, Seely JC, Furedi-Machacek EM, Foley JF, Lacks GD, Stasiewicz S and French JE. Toxicologic Pathology, Vol. 25, No. 6., 533-540, 1997.

Diagnostic dilemmas in toxicologic pathology. Hardisty Jerry. Presented at The 22nd Annual CL Davis DVM Foundation Continuing Education Symposium at North Carolina State University, College of Veterinary Medicine in Raleigh, North Carolina on June 14-18, 1998.

Thyroid and parathyroid glands, by JF Hardisty and GA Boorman. In: Pathology of the Mouse, (RR Maronpot, GA Boorman and BW Gaul, eds), Vienna, IL, Cache River Press, 1999.

Rodent Leydig Cell Tumorigenesis: A Review of the Physiology, Pathology, Mechanisms, and Relevance to Humans. Jon C Cook, Gary R Klinefelter, Jerry F Hardisty, Richard M Sharpe and Paul MD Foster. Critical Reviews in Toxicology 1999 March;29(169-261).

The nomenclature of cell death: recommendations of an ad hoc committee of Society of Toxicologic Pathologists. Levin S, Bucci TJ, Cohen SM, Fix AS, Hardisty JF, Legrand EK, Maronpot RR and Trump BF. Toxicologic Pathology. 1999 Jul-Aug;27(4):484-490.

Controversial issues in anatomic pathology. Hardisty Jerry. Presented as a course entitled *Industrial Toxicology and Pathology* for the American Registry of Pathology at the Ramada Inn in Bethesda, MD on September 28, 1999..

Histopathology of nasal olfactory mucosa from selected inhalation toxicity studies conducted with volatile chemicals. Hardisty JF, Garman RH, Harkema JR, Lomax LG and Morgan KT. Toxicologic Pathology, Vol.27, No. 6, pp. 618-627, 1999.

Pathology Working Groups: Current Concepts. Hardisty JF. Presented at the 16<sup>th</sup> Annual Meeting of the Society of Quality Assurance in Montreal, Canada on October 9-13, 2000.

Blind Pathology – When and When Not. Hardisty JF. Presented at the 51<sup>st</sup> Annual Toxicology Roundtable Program in Asheville, NC on October 15-18, 2000.

Short-Term, Subchronic, and Chronic Toxicology Studies, by NH Wilson, JF Hardisty and JR Hayes. In: Principles and Methods of Toxicology, 4<sup>th</sup> Edition, (Wallace Hayes, ed), ISBN 1-56032-814-2, 2000.

Methods to identify and characterize developmental neurotoxicity for human health risk assessment. II: neuropathology. Garman RH, Fix AS, Jortner BS, Hardisty JF, Claudio L and Ferenc S. Environmental Health Perspectives, Vol. 109, pp. 93-100, March 2001.



**JERRY F. HARDISTY, DVM, DACVP**

**PUBLICATIONS AND PAPERS – Continued**

A chronic inhalation toxicity/oncogenicity study of methylethylketoxime in rats and mice. Newton PE, Wooding WL, Bolte HF, Derelanko MJ, Hardisty JF and Rinehart WE. *Inhalation Toxicology*, 13:1093-1116, 2001.

Carcinogenic assessment of premafloxacin in rats and mice. White KA, Daniel EM, Botta JA, Clare LJ, Barnett D, Hildebrandt P, Hardisty JF and Lucas MJ. Presented as a poster for the Society of Toxicologic Pathology and the International Federation of Societies of Toxicologic Pathologists in Orlando, Florida on June 24-28, 2001.

The Pathologist and Pathology Data. Hardisty JF. Presented at FDA CEDR on May 31, 2001.

Inhalation Toxicology of Octamethylcyclotetrasiloxane (D<sub>4</sub>) Following a 3-month Nose-Only Exposure in Fischer 344 rats. Burns-Naas LA, Meeks RG, Kolesar GB, Mast RW, Elwell MR, Hardisty JF, Thevenaz P. *International Journal of Toxicology*. 2002 Jan-Feb;21(1):39-53.

Quality review procedures necessary for rodent pathology databases and toxicogenomic studies: The National Toxicology Program Experience. Boorman GA, Haseman JK, Waters WD, Hardisty JF and Sills RC. *Toxicologic Pathology*. 30, 88-92, 2002.

Inhalation toxicology of octamethylcyclotetrasiloxane (D<sub>4</sub>) following a 3-month nose-only exposure in Fischer 344 rats. Burns-Naas LA, Meeks RG, Kolesar GB, Mast RW, Elwell MR, Hardisty JF and Thevenaz P. *International Journal of Toxicology*, ISSN 1091-5818, Vol. 21, No. 1, pp 39-53, 2002.

Diagnostic dilemmas in toxicologic pathology. Presented at the 5<sup>th</sup> Industrial Toxicology and Pathology Course and symposium in Chicago, IL on July 9, 2002.

Histologic artifacts & diagnostic dilemmas. Presented at the RTP Rodent Pathology Course, Research Triangle Park, NC on September 8-10, 2002.

Comparative prevalence, multiplicity, and progression of spontaneous and vinyl carbamate-induced liver lesions in five strains of male mice. Takahashi K, Dinse GE, Foley JF and Maronpot RR. *Toxicologic Pathology*, Vol 30, No. 5, pp 599-605, 2002.

Propylene glycol monomethyl ether (PGME): inhalation toxicity and carcinogenicity in Fischer 344 rats and B6C3F1 mice. *Toxicologic Pathology*, Vol 30, No. 5, pp 570-579, 2002.

An evaluation of changes and recovery in the olfactory epithelium in mice after inhalation exposure to methylethylketoxime. Newton PE, Bolte HF, Derelanko MJ, Hardisty JF and Rinehart WE. *Inhalation Toxicology*, 14:1249-1260, 2002.

The pathologist and pathology data. Hardisty JF. Presented at NIEHS, RTP, NC on February 29, 2002.

The pathologist and pathology data. Hardisty JF. Presented at the SOT Meeting in Nashville, TN on March 2002.

Propylene Glycol Monomethyl Ether (PGME); Inhalation Toxicity and Carcinogenicity in Fischer 344 rats and B6C3F1 mice. Spencer PJ, Crissman JW, Stott WT, Corley RA, Cieszlak FS, Schumann AM, Hardisty JF. *Toxicological Pathology* 2002 Sep-Oct;30(5).570-9.

Histologic artifacts and diagnostic dilemmas. Hardisty JF. Presented at NCTR in Jefferson, AR on October 31, 2002.



JERRY F. HARDISTY, DVM, DACVP

**PUBLICATIONS AND PAPERS – Continued**

The pathologist and pathology data. Hardisty JF. Presented at NCTR in Jefferson, AR on October 31, 2002.

The pathologist and pathology data. Hardisty JF. Presented at Health Canada in Ottawa, Canada on December 2, 2002.

Necropsy and histology techniques. Hardisty JF. Presented at FDA on January 9, 2003.

Current approaches to Peer Review and PWG. Hardisty JF. Presented at Battelle in Columbus, OH on June 5, 2003.

Characterization of intrathoracic mesothelioma in Fischer 344/N rats. Willson G, Clayton N, Hardisty J, and Pearse G. Presented as a poster for the Society of Toxicologic Pathology, 22<sup>nd</sup> Annual Meeting In Savannah, Georgia on June 15-19, 2003.

Transplacental carcinogenicity of azidothymidine in B6C3F1 mice and F344 rats. Walker DM, Hardisty JF, Ruecker FA, Funk KA, Wolfe MJ and Walker VE. Abstract No. 548, 2004 *Itinerary Planner*. Baltimore, MD: Society of Toxicology.

Comparison of automated software with conventional histopathology of liver step sections in an NTP Subchronic Bioassay. Willson GA, Joron TA, Lesniak D, Pearse G and Hardisty JF. Presented a poster at the STP Meeting in Salt Lake City, UT, June, 2004.

Automated Pathology Systems – Human Versus Machine Vision. Hardisty JF; Toxicology Roundtable, Augusta, MI. Sept. 2004.

Comparative hepatic toxicity: prechronic/chronic liver toxicity in rodents. Hardisty JF and Brix AE. *Toxicologic Pathology*, 33:35-40, 2005.

ACT/STP Pathology Course for Non-Pathologists. Hardisty JF. Speaker at ACT/STP Meeting, Lincolnshire, IL, May 10-13, 2005.

Defining a Noncarcinogenic Dose of Recombinant Human Parathyroid Hormone 1-84 in a 2-year study in Fischer 344 rats. Jolette J, Wilker CE, Smith SY, Doyle N, Hardisty JF, Metcalfe AJ, Marriott TB, Fox J, Wells DS. *Toxicological Pathology* 006;34(7):929-40.

Optimization in Pathology. Presented at RCC Scientific Workshop Basel on October 19, 2006.

Diagnostic Dilemmas in Toxicologic Pathology, Hardisty JF. Speaker, Presented at the 7th Biennial Industrial Toxicology & Pathology Short Course, Co-sponsored by the Society of Toxicologic Pathology and the University of Illinois College of Veterinary Medicine, July 23–25, 2007.

Histopathology of Hemangiosarcoma in Mice Hamsters and Liposarcomas/Fibrosarcomas in Rats Associated with PPAR Agonists. Hardisty JF, Elwell MR, Ernst H, Greaves P, Kolenda-Roberts H, Malarkey DE, Mann PC, Tellier PA. *Toxicologic Pathology*, 35:928-941, 2007.

General Principles in Necropsy and Histology, Hardisty JF. Speaker, Presented at The Third Sino-US Pharmaceutical Workshop, Toxicological Pathology in New Product Development, Boda Mansion, Beijing, May 30, 2008.



JERRY F. HARDISTY, DVM, DACVP

**PUBLICATIONS AND PAPERS – Continued**

Current Practices in Toxicologic Pathology, Hardisty JF. Speaker, Presented at The Third Sino-US Pharmaceutical Workshop, Toxicological Pathology in New Product Development, Boda Mansion, Beijing, May 30, 2008.

Chronic Progressive Nephropathy and Proliferative Lesions of the Renal Tubule, Hardisty JF. Speaker, Presented at The Third Sino-US Pharmaceutical Workshop, Toxicological Pathology in New Product Development, Boda Mansion, Beijing, May 30, 2008.

Histopathology of the Urinary Bladders of Cynomolgus Monkeys Treated with PPAR Agonists. Hardisty JF, Anderson DC, Brodie S, Cline JM, Hahn FF, Kolenda-Roberts H, Lele SM, Lowenstein LJ. *Toxicological Pathology*, 2008;36 769-776.

Ocular Collection Protocol for the Laboratory Rabbit, Dog, and Monkey. Render JA, Dubielzig RR, Dunn DG, Hardisty JF, Moore RR, Sabio DA. Presented as a poster for the 6<sup>th</sup> European Congress of Toxicologic Pathology, Edinburgh, Scotland on September 24 - 26, 2008.

"Larynx Squamous Metaplasia". A Re-consideration of Morphology and Diagnostic Approaches in Rodent Studies and its Relevance for Human Risk Assessment. Kaufmann W, Bader R, Ernst H, Harada T, Hardisty JF, Kittel B, Kolling A, Pino M, Renne R, Rittinghausen S, Schulte A, Wohrmann, T, Rosenbruch M. Presented at The 1st International ESTP Expert Workshop, Ludwigshafen, Germany; Published: *Experimental and Toxicologic Pathology*, 61 (2009) 591-603

Regulatory Perspective for Pathology Data. Manabe S, Oishi Y, Tamura K, Schorsch F, Weber K, Hardisty JF, Kuramami K. Panel Discussion: Presented at the 25th JSTP Annual Meeting, Hamamatsu, Japan, January 28, 2009. Published: *Journal of Toxicologic Pathology* 2009; 22: 209-227

Lesions in the Larynx of Wistar RccHan™: WIST Rats. Weber K, Germann PG, Iwata H, Hardisty JF, Kaufmann W, Rosenbruch M. Published: *Journal of Toxicologic Pathology* 2009; 22: 229-246

Thyroid Dysplasia in Wistar Hannover GALAS Rats. Weber K, Ernst R, Fankhauser H, Hardisty JF, Heider W, Stevens K. Published: *Journal of Toxicologic Pathology* 2009; 22: 247-254

International Prospective on Peer Review. North American Perspective presented by Hardisty JF. The 2010 Town Hall Meeting at the Society of Toxicologic Pathology, Chicago, IL, July 20-24, 2010.

Optimal Routine Sampling of the Cynomolgus Monkey Nervous System in Toxicity Studies. Hardisty JF, Moore R. Poster Presentation at the Society of Toxicologic Pathology, Chicago, IL, July 20-24, 2010.

Innunohistochemical Study of Brain Tumors in Rats Treated with Acrylonitrile. Kolenda-Roberts H, Hardisty JF. Poster Presentation at the Society of Toxicologic Pathology, Chicago, IL, July 20-24, 2010.

A Commentary on the Process of Peer Review and Pathology Data Locking. McKay JS, Barale-Thomas E, Bolon B, George C, Hardisty JF, Manabe S, Schorsch F, Terancishi M, Weber K. Published: *Journal of Toxicologic Pathology* 2010; 38: 508-510



Experimental Pathology Laboratories, Inc.

JERRY F. HARDISTY, DVM, DACVP

**PUBLICATIONS AND PAPERS – Continued**

Recommendations for Pathology Peer Review. Morton D, Sellers RS, Barale-Thomas E, Bolon B, George C, Hardisty JF, Irizarry A, McKay JS, Odin M, Teranishi M. Published: Journal of Toxicologic Pathology 2010; 38: 1118-1127

Pathology Working Group Review and Evaluations of Prolifer Lesions of Mammary Gland Tissues in Female Rats Fed Ammonium Perfluorooctanoate (APFO) in the diet for 2 years. Hardisty JF, Willson GA, Brown WR, McConriell EE, Frame SR, Gaylor DW, Kennedy GL, Butenhoff JL, Published: PubMed; US National Library of Medicine / National Institutes of Health. PMID: 20307141 [PubMed – indexed for MEDLINE]. Drug Chem Toxicol. 2010 Apr; 33(2): 101-137.

Industry-Contract Research Organization Pathology Interactions: A Perspective of Contract Research Organizations in Producing the Best Quality Pathology Report. Gosselin SJ, Palate B, Parker GA, Engelhardt JA, Hardisty JF, McDorman KS, Tellier PA, Silverman LR. Published: Journal of Toxicologic Pathology 2011; 000: 1-7.

JERRY F. HARDISTY, D.V.M.

Chief Executive Officer

Senior Pathologist

DATE



Experimental Pathology Laboratories, Inc.

**PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P.  
VETERINARY PATHOLOGIST**

**EDUCATION:**

Washington University, St. Louis, Missouri, A.B., English Literature, 1966-1970  
University of Missouri, St. Louis, Missouri, Pre-veterinary Studies, 1972-1974  
University of Missouri, Columbia, Missouri, D.V.M., 1975-1979

**CERTIFICATIONS/LICENSURE:**

Certified by the American College of Veterinary Pathologists, 1984

**PRESENT POSITION AND EXPERIENCE:**

**2007 – Present.** Manager, EPL Northwest, Seattle, WA.

Responsible for project management and for the microscopic evaluation of tissues from experimental animals used in a variety of toxicological studies from pharmaceutical, biotechnical, and agricultural clients. Offering histopathology and peer review services as well as organization of Pathology Working Groups. Provide interpretation of ultrastructural pathology. Consultation to clients on regulatory issues.

**2002 – 2006.** Manager, EPL Northeast, Galena, MD.

Responsible for project management and for the microscopic evaluation of tissues from experimental animals used in a variety of toxicological studies from pharmaceutical, biotechnical, and agricultural clients. Offering histopathology and peer review services as well as organization of Pathology Working Groups. Provide interpretation of ultrastructural pathology. Consultation to clients on regulatory issues.

**2000 – 2002.** On-Site Consultant, DuPont Pharmaceuticals Company, Wilmington, DE.

Full-time, on-site consultant to DuPont Pharmaceuticals Company. Provided necropsy supervision and microscopic evaluation of tissues from experimental animals used in a variety of toxicological studies by DuPont Pharmaceuticals Company.



Experimental Pathology Laboratories, Inc.

**PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P. – CONTINUED**

**1999 – 2000.**      **Senior Projects Manager,** Experimental Pathology Laboratories, Inc., Research Triangle Park, NC.

Responsible for project management and for the microscopic evaluation of tissues from experimental animals used in a variety of toxicological studies for both commercial clients and the National Toxicology Program's Pathology Quality Assessment Program and the NTP Archives.

**1994 – 1999.**      **Director and Pathologist,** Experimental Pathology Laboratories, Inc., Research Triangle Park, NC.

Responsible for project management, direction and technical supervision of the North Carolina Branch of EPL. Responsible for the microscopic evaluation of tissues from experimental animals used in a variety of toxicological studies. Provided support to the National Toxicology Program's Pathology Quality Assessment Program and the NTP Archives.

**1990 – 1994.**      **Veterinary Pathologist,** Experimental Pathology Laboratories, Inc., Research Triangle Park, NC.

Duties included histopathologic interpretation of tissues from various laboratory animals used for toxicology and carcinogenesis studies.

**1989 – 1990.**      **Pathologist,** EPL Scientific Limited, Harrogate, England.

**1985 – 1989.**      **Veterinary Pathologist,** ICI Pharmaceuticals, Division of ICI Americas, Wilmington, Delaware.

**1982 – 1989.**      **Staff Pathologist,** Brandywine Zoo, Wilmington, Delaware.

**1982 – 1985.**      **Senior Lecturer,** Department of Pathobiology, University of Pennsylvania School of Veterinary Medicine.

**1979 – 1982.**      **Resident in Pathology,** National Zoological Park, Washington, DC.



Experimental Pathology Laboratories, Inc.

**PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P. – CONTINUED**

- 1974 – 1975.      **Food Technologist**, Pet Foods Department, Grocery R&D, Ralston Purina Co., St. Louis, MO.
- 1970 – 1971.      **Secondary School Teacher**, St. Louis, MO.

**PROFESSIONAL MEMBERSHIPS:**

American Veterinary Medical Association  
American College of Veterinary Pathology  
Society of Toxicological Pathology  
British Society of Toxicologic Pathologists  
C.L. Davis Foundation for the Advancement of Veterinary Pathology  
North Carolina Society of Toxicology

**SERVICE TO PROFESSIONAL ASSOCIATIONS:**

Chairman, STP Nomenclature Subcommittee on the Mammary Gland

Member, STP Nomenclature Subcommittee on the Respiratory System  
Adjunct Associate Professor at the School of Veterinary Medicine, NC State University, Department of Microbiology, Pathology and Parasitology  
Member, STP Symposium Committee, 1995-1998  
Co-Chairman, STP Educational Committee, 1996  
Chairman, STP Symposium Committee, 1998  
Copy Editor, C.L. Davis Foundation Newsletter, 1998  
Member, Advisory Board, C.L. Davis Foundation for the Advancement of Veterinary Pathology, 2000-2004  
Member, Executive Committee, Society of Toxicologic Pathology, 2000-2004  
Chairman, STP Journal Committee, 2005  
Chair, Global Editorial Steering Committee, 2006-2008  
President-Elect, Society of Toxicologic Pathology, 2008-2009  
President, Society of Toxicologic Pathology, 2009-2010  
Member, ILSI/HESI Subcommittee on Distinguishing Adverse from Adaptive, Non-Functional, and Pharmacologic Changes in Toxicology Studies, 2009-2010

**SERVICE TO EDITORIAL BOARDS OF SCHOLARY JOURNALS:**

Reviewer for Toxicologic Pathology, 1998-2002



Experimental Pathology Laboratories, Inc.

## PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P. – CONTINUED

### PROFESSIONAL DEVELOPMENT/SPECIALIZED TRAINING:

#### Educational Activities/Special Lectures:

- |           |   |
|-----------|---|
| 1981      | Diseases of zoo mammals and birds. Pathology of Laboratory Animals, Washington, D.C.  |
| 1982      | Pathology of zoo animals. Friends of the National Zoo, Washington, D.C.   |
| 1982      | Necropsy Service, University of Pennsylvania School of Veterinary Medicine, supervision of senior students and residents in small animal pathology rotation.  |
| 1982-1985 | Necropsy Service, University of Pennsylvania School of Veterinary Medicine, supervision of senior students and residents in large animal pathology rotation.  |
| 1983      | University of Pennsylvania School of Veterinary Medicine, Course 5402, Skin Diseases of Large Animals.  |
| 1983-1984 | Philadelphia College of Pharmacy and Science. Principles of Pathology.  |
| 1983-1984 | University of Pennsylvania School of Veterinary Medicine, Course 5001, General Endocrine Pathology.   |
| 1983      | University of Pennsylvania School of Veterinary Medicine, Course 4501, Infectious Diseases of Dogs and Cats, Neuroendocrine Pathology.                        |
| 1984      | University of Pennsylvania School of Veterinary Medicine, Course 5401, Infectious Diseases of Dogs and Cats.  |
| 1984      | University of Pennsylvania School of Veterinary Medicine, Course 5402, Skin Diseases of Large Animals, Diseases of Horses.                                    |
| 1985      | University of Pennsylvania School of Veterinary Medicine, Course 5402, Diseases of Horses.  |
| 1996      | School of Veterinary Medicine, NC State University, Department of Microbiology, Pathology and Parasitology, VMS 643: Toxicologic Pathology – Lymphoreticular. |



**PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P. – CONTINUED**

- 1997      School of Veterinary Medicine, NC State University, Department of Microbiology, Pathology and Parasitology, VMS 643: Toxicologic Pathology – Lymphoreticular.
- 1999      Chemical Industry Institute of Toxicology, Pathology Short Course for Toxicologists. Necropsy and Histology Techniques. Pathology of genetically-engineered mouse lines used in new short-term carcinogenesis bioassays.
- 2002      Society of Toxicology, Continuing Education Course: Blood and Lymphoid Tissue: Neoplasia of Blood and Lymphoid Tissue.
- 2003      Society of Toxicology, Continuing Education Course: Integrating Toxicologic Pathology into Compound Evaluation and Risk Assessment II: Diagnostic Drift.
- 2006      International Institute of Biotechnology and Toxicology. Chennai, Tamal Nadu, India: Regulatory Toxicologic Pathology
- 2007      School of Veterinary Medicine, Purdue University. Laboratory Animal Medicine The Use of Genetically-Modified-Mice in Toxicology
- 2008      Beijing Pharma and Biotech Center (BPBC) – Sino American Pharmaceutical Professionals Association (SAPA) Beijing Workshop: Toxicologic Pathology in New Product Development. Fundamentals of General and Toxicologic Pathology and Histopathology of the Respiratory System: Nose, Larynx and Lungs.
- 2010      School of Veterinary Medicine, Purdue University. Laboratory Animal Medicine, The Use of Genetically-Modified-Mice in Toxicology and Trust me, I'm a Pathologist.
- National Institute for the Control of Pharmaceuticals and Biological Products and the Society of Toxicologic Pathology: USA-China Carcinogenicity Studies Workshop. Beijing, China. Reading the Rodent Bioassay: Problems, Pitfalls and Peer Review and Common Background Tumors of Laboratory Rodents.



Experimental Pathology Laboratories, Inc.

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**PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P. – CONTINUED**

**Seminars and Presentations:**

Canine parvovirus. Johns Hopkins Division of Comparative Medicine, Baltimore, 1980.

Parvo-like enteritis in golden lion tamarins. Primate Pathology Workshop, New Orleans, 1980.

Canine parvovirus in South American canids. American Association of Zoo Veterinarians, Washington, D.C., 1980.

Leiomyomas of the genital tract in large zoo mammals. International Academy of Pathology, Chicago, 1981.

Respiratory distress syndrome in neonatal reindeer (poster). International Academy of Pathology, Chicago, 1981.

Herpesvirus infections in old world primates. Johns Hopkins Division of Comparative Medicine, Baltimore, 1981.

Selected diseases of zoo animals. University of Pennsylvania School of Veterinary Medicine, Philadelphia, 1981.

Tuberculous osteomyelitis in captive marsupials (poster). International Academy of Pathology, Boston, 1982.

Selected diseases of zoo animals. Virginia-Maryland Regional College of Veterinary Medicine, Blacksburg, 1982.

Post mortem examination as a technique in research. Symposium on the effects of oil on birds, Stone Harbour, 1982.

Enzootic nasal tumors in sheep. Pennsylvania Diagnostic Workshop, Harrisburg, 1983.

Gross pathology of zoo animals. Eighth Annual C.L. Davis Conference in Veterinary Pathology, Philadelphia, 1984.

Peer review from the perspective of a consultant pathologist. Society for Quality Assurance Annual Meeting, Phoenix, Arizona, 1995.

Lesions of Dioxin in laboratory animals. Society of Toxicologic Pathologists 15th International Symposium, St. Louis, Missouri, 1996.



Experimental Pathology Laboratories, Inc.

## PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P. – CONTINUED

Use of genetically altered mice in short-term bioassays. The 22nd Annual C.L. Davis DVM Foundation Continuing Education Symposium, North Carolina State University, College of Veterinary Medicine, Raleigh, North Carolina, June 14-18, 1998.

Pathology of genetically-engineered mouse lines used in new short-term carcinogenesis bioassays. Pathology of Genetically-Engineered Mice, National Institute of Health, Bethesda, Maryland, February 24-25, 1999.

Pathology of genetically-engineered mouse lines used in new short-term carcinogenesis bioassays. CL Davis Foundation European Pathology Division Symposium, Nantes, France, July 1999.

Pathology of genetically-engineered mouse lines used in new short-term carcinogenesis bioassays. Wyeth Ayerst Research, Chazy, NY, November 1999.

Background pathology of genetically-engineered mouse lines and the significance of strain variability. Pathology of Mutant Animal Models, sponsored by the CL Davis Foundation, Houston, TX, February 17-19, 2000.

Pathology Peer Review: Current Concepts. Society of Quality Assurance, 16<sup>th</sup> Annual Meeting, Montreal, Canada, October 9-13, 2000.

Background pathology of genetically-engineered mouse lines. American College of Toxicology, 21<sup>st</sup> Annual Meeting, San Diego, CA, November 13, 2000.

Background pathology of genetically-engineered mouse lines and the significance of strain variability. Pathology of Mutant Animal Models sponsored by the CL Davis Foundation, Houston, TX, February 15-17, 2001.

Pathology of Transgenic Mice. CL Davis Foundation European Division Pathology Symposium (Szent Istvan University, Budapest, Hungary), July 5-7, 2001.

Genetically-engineered mice in toxicology. Pathology of Mutant Animal Models, sponsored by the CL Davis Foundation, Houston, TX, February 13-16, 2002.

Necropsy and Histology: Current Practices in Pathology. Health Canada, Existing Substances Branch, Ottawa, Canada, March 2002.

Pathology Data and Tox-Path Issues. USFDA, May 20, 2002.



Experimental Pathology Laboratories, Inc.

## PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P. – CONTINUED

Necropsy and Histology, Current Practices in Pathology, Pathology of Transgenic Mice, Diagnostic Drift. May 21-22, 2003. Health Canada, Ottawa, Canada.

Necropsy and Histology, Current Practices in Pathology, Pathology of Transgenic Mice, Diagnostic Drift. December 2-3, 2003. Health Canada, Ottawa, Canada.

Diagnostic Dilemmas. Industrial and Toxicologic Pathology Course VI. Chicago, IL, July 18-21, 2004.

Pathology of p53 heterozygous Transgenic Mice, CL Davis Foundation, Northeast Division Meeting, December 10, 2004, Nutley NJ.

Pathology of Transgenic Mice. Korean Society of Toxicology. 2004 Annual Meeting, November 4-5, 2004, Seoul, S. Korea.

Current Practices in Pathology, Peer Review. Korean Institute of Toxicology, November 8, 2004, Daejong, S. Korea.

The PTOX Seminar Series: Transgenic Models. Forest Research Institute, October 21, 2004, Jersey City, NJ.

An Introduction to Toxicologic Pathology, Adolor Corporation, March 4, 2005, Exton, PA.

Adverse vs Non-Adverse Lesions in Toxicology Studies. Korean Institute of Toxicology, June 1, 2005, Daejong, South Korea.

Overview of Neoplastic Lesions in Rodents. Korean Association for Laboratory Animal Science, 21<sup>st</sup> International Symposium, June 3, 2005, Seoul, South Korea.

Module 3: Carcinogenesis. Alternative Onco Study Models – Update, Lecture and Practical. British Society of Toxicologic Pathology, Modular Education Programme in Toxicologic Pathology, July 15, 2005, Edinburgh, Scotland.

Transgenic Mice: Creation, Pathology and Use in Toxicology Studies. CL Davis Foundation European Division; Annual Meeting, September 6, 2005, Naples, Italy.

The Rodent Bioassay in the 21<sup>st</sup> Century: Reading the Study – Problems, Pitfalls and Peer Review. CL Davis Foundation, NorthEast Division, November 11, 2005, Nutley, NJ.

INHAND and the GESC – the New Nomenclature Project. Japanese Society of Toxicologic Pathology, February 7, 2008, Nagoya, Japan



Experimental Pathology Laboratories, Inc.

## PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P. – CONTINUED

Pathology of Transgenic Mice. DIMS Institute of Medical Science, February 8, 2008, Ichinomiya, Japan

Trust Me, I'm a Pathologist. American College of Toxicology, Palm Springs, November 1, 2009, Palm Springs, CA.

### PUBLICATIONS AND PRESENTATIONS:

#### Books:

Mann, P.C.: How to Buy a Used Car Without Getting Gyped. New York, New York, Harper and Row, 1975.

#### Book Chapters:

Salivary, Harderian and Lacrimal Glands, by S. Botts, M.P. Jokinen, E.T. Gaillard, M.R. Elwell, and P.C. Mann. In: Pathology of the Mouse (R.R. Maronpot, G.A. Boorman, and B.W. Gaul, eds), Vienna, IL, Cache River Press, 1999.

Thymus, Spleen and Lymph Nodes, by J.M. Ward, P.C. Mann, H. Morishima, and C.H. Frith. In: Pathology of the Mouse (R.R. Maronpot, G.A. Boorman, and B.W. Gaul, eds), Vienna, IL, Cache River Press, 1999.

Managing Pitfalls in Toxicologic Pathology, by P.C. Mann, J.F. Hardisty, and M.D. Parker. In: Handbook of Toxicologic Pathology (W.M. Haschek, C.G. Rousseaux, and M.A. Wallig, eds), San Diego, CA, Academic Press, 2002.

Principles of Pathology for Toxicology Studies by Steven R. Frame and Peter C. Mann. In: Principles and Methods of Toxicology, Fifth Edition (A. Wallace Hayes, ed), Boca Raton, FL, CRC Press, 2008

#### Abstracts:

Mann, P.C., Bush, M., Jones, D.M., Griner, L.A., Keuhne, G.R. and Montali, R.J.: Leiomyomas of the genital tract in large zoo mammals. *Laboratory Investigation*, 1981, 44:40A.

Mann, P.C., Montali, R.J. and Bush, M.: Respiratory distress syndrome in neonatal reindeer. *Laboratory Investigation*, 1981, 44:40A-41A.

Mann, P.C., Montali, R.J. and Bush, M.: Tuberculous osteomyelitis in captive marsupials. *Laboratory Investigation*, 1982, 46-51A.

Harrison, I., Tulleners, E., Mann, P.C. and Raker, C.W.: Assessment of partial arytenoidectomy without mucosal closure of the horse. *Vet. Surgery*, 1986, 15:122.



Experimental Pathology Laboratories, Inc.

## PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P. – CONTINUED

Mahler, J.F., Mann, P., Takaoka, M. and Maronpot, R.: Spontaneous lesions of the FVB/N mouse. *Tox. Path.*, 23(6), 1996, 744-745.

Torrey CE, Allen JS, Selinger K, Mann P, Miller RT and Rickert DE. Testing of Clofibrate in a 6-Month Gavage Study Using p53<sup>±</sup> Mice. *Toxicologic Pathology* 29S:205-207, 2001.

Jackson, K., Okasaki, K., Chihaya, Y., Sato, K., Koelling, M., Meyer, S., and Mann, P. Results of a validation carcinogenicity study using transgenic p53 +/- and transgenic ras H2 mice. The Japanese Society of Toxicology, 2004 Annual Meeting, July 2004.

Acute Adverse Effects of the Indenopyridine, CDB-4022 (Racemate), on the Ultrastructure of Sertoli Cells, Spermatocytes, and Spermatids in the Testes of Treated Rats: Comparison to the Known Sertoli Cell Toxicant, Di-n-Pentylphthalate (DPP), 38<sup>th</sup> Annual Meeting, Society for the Study of Reproduction, July 24-27, 2005, Quebec City, Quebec, Canada.

### Scientific Papers:

Wagner, J.E. and Mann, P.C.: Botulism in California sea lions (*Zalophus californianus*), a case report. *Journal of Zoo Animal Medicine*, 1978, 9:142-145.

Kier, A.B., Mann, P.C. and Wagner, J.E.: Disseminated sporotrichosis in a cat. *JAVMA*, 1979, 175:202-204.

Taylor, J.L., Wagner, J.E., Kusewitt, D.F. and Mann, P.C.: *Klossiella* parasites of animals. A literature review. *Veterinary Parasitology*, 1979, 5:137-144.

Wagner, J.E., Burton, C.H., Morehouse, L.G. and Mann, P.C.: A computerized system for retrieval of case information in a veterinary diagnostic laboratory. *American Journal of Veterinary Research*, 1979, 40:336-442.

Mann, P.C., Bush, M., Appel, M.J.G., Beehler, B.A. and Montali, R.J.: Canine parvovirus infection in South American canids. *JAVMA*, 1980, 177:779-783.

Wightman, S.R., Mann, P.C. and Wagner, J.E.: Dihydrostreptomycin toxicity in the Mongolian gerbil. *Lab. Animal Science*, 1980, 30:71-75.

Montali, R.J. and Mann, P.C.: Selected diseases of zoo animals. C.L. Davis Foundation, Training Aid Issue, 1981, Vol. XI.

Montali, R.J., Mann, P.C. and Seidensticker, J.: Rabies in raccoons - Virginia. *Morbidity and Mortality Weekly Report*, 1981, 30:353-355.

**PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P. – CONTINUED**

- Mann, P.C., Bush, M., Janssen, D.L. Frank, E.S. and Montali, R.J.: Clinopathologic correlations of tuberculosis in large zoo mammals. JAVMA, 1981, 179:1123-1129.
- Montali, R.J., Mann, P.C., Jones, D.M., Griner, L.A., Keuhne, G.R., Narushima, E. and Bush, M.: Leiomyomas in the genital tract of large zoo mammals. Proceedings XXIV International Symposium on the Disease of Zoo Animals, 1982, Vesprem, 117-122.
- Mann, P.C., Montali, R.J. and Bush, M.: Mycobacterial osteomyelitis in captive marsupials. JAVMA, 1982, 181:1331-1333.
- Acland, H.M., Mann, P.C., Robertson, J.L., Divers, T.J., Lichtensteiger, C.A. and Whitlock, R.H.: Toxic hepatopathy in neonatal foals. Vet Path, 1984, 21:3-9.
- Reef, V.B., Mann, P.C. and Orsini, P.G.: Echocardiographic detection of tricuspid atresia in two foals. JAVMA, 1987, 191:225-228.
- Morris, C.F., Robertson, J.L., Mann, P.C., Clark, S. and Divers, T.J.: Hemolytic uremic-like syndrome in two horses. JAVMA, 1987, 191:1453-1454.
- Tulleners, E.P., Harrison, I.W., Mann, P.C. and Raker, C.W.: Partial arytenoidectomy in the horse with and without mucosal closure. Vet Surgery, 1988, 17:252-257.
- Orsini, PG, Raker CW, Reid CF, Mann P. Xeroradiographic evaluation of the equine larynx, Am J Vet Res. 1989, 50(6):845-9.
- Tulleners, E., Mann, P., Raker, C.W., Epiglottic augmentation in the horse. Vet. Surgery, 1990, 19:181-190.
- Bader, R., Gembardt, C., Kaufmann, W., Kuttler, K., Mann, P.C., Van Zwieten, M.J. and Zurcher, C.: Part I: The Rat, 5. Integumentary System. In: International Classification of Rodent Tumours, (U. Mohr, ed), pp 1-45. International Agency for Research on Cancer, 1993.
- Hayes, J.R., Wilson, N.H., Roblin, M.C., Mann, P.C. and Kiorpis, A.L.: 28-Day continuous dosing study in minipigs with a SALATRIM structured triacylglycerol composed of stearate, acetate, and propionate. J. Agric. Food Chem., 1994, 42:563-571.



Experimental Pathology Laboratories, Inc.

**PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P. – CONTINUED**

Dodd, D.E., Stuart, B.O., Rothenberg, S.J., Kershaw, M., Mann, P.C., James, J.T. and Lam, C.: Acute, 2-Week, and 13-Week Inhalation Toxicity Studies on Dimethylethoxysilane Vapor in Fischer 344 Rats. *Inhalation Toxicology*, 6:151-166, 1994.

Malarkey, D.E., Devereux, T.R., Dinse, G.E., Mann, P.C. and Maronpot, R.R.: hepatocarcinogenicity of chlordane in B6C3F1 and B6D2F1 male mice: evidence for regression in B6C3F1 mice and carcinogenesis independent of ras proto-oncogene activation. *Carcinogenesis*, Vol. 16, No. 11, 2617-2625, 1995.

Mann, P.C., Boorman, G.A., Lollini, L.O., McMurtin, D.N. and Goodman, D.G. Proliferative lesions of the mammary gland in rats, IS-2. In: *Guides for Toxicologic Pathology*, STP/ARP/AFIP, Washington, D.C., 1996.

Mann, P.C. Pathology peer review from the perspective of an external peer review pathologist. *Toxicologic Pathology* ISSN: 0192-6233, Vol. 24, No. 5, 650-653, 1996.

Mahler, J.F., Stokes, W., Mann, P.C., Takaoka, M. and Maronpot, R. Spontaneous lesions in aging FVB/N mice. *Toxicologic Pathology* ISSN: 0192-6233, Vol. 24, No. 6, 710-716, 1996.

Mann, P.C., Selected lesions of dioxin in laboratory rodents. *Toxicologic Pathology* ISSN: 0192-6233, Vol. 25, No. 1, 72-79, 1997.

Gray, L.E., Wolf, C., Mann, P., Ostby, J.S., In utero exposure to low doses of 2,3,7,8-tetrachlorodibenzo-p-dioxin alters reproductive development of female Long Evans hooded rat offspring. *Toxicology and Applied Pharmacology*, Vol 146, No. 2, 237-44, 1997.

Eckhoff G, Mann P, Gaillard E, Dykstra M, Swanson G. Naturally Developing Virus-Induced Lethal Pneumonia in Two Guinea Pigs (*Cavia porcellus*). *Contemp Top Lab Anim Sci*, 1998, 37(1):54-57.

Burns-Naas, L.A., Mast, R.W., Klykken, P.C., McCay, J.A., White, K.L., Mann, P.C. and Naas, D.J., Toxicology and humoral immunity assessment of decamethylcyclo-pentasiloxane (D<sub>5</sub>) following a 1-month whole body inhalation exposure in Fischer 344 rats. *Toxicological Sciences*, 43:28-38, 1998.

Burns-Naas, L.A., Mast, R.W., Meeks, R.G., Mann, P.C. and Thevenaz, P., Inhalation toxicology of decamethylcyclo-pentasiloxane (D<sub>5</sub>) following a 3-month nose-only exposure in Fischer 344 rats. *Toxicological Sciences*, 43:230-240, 1998.



Experimental Pathology Laboratories, Inc.

## PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P. – CONTINUED

Mahler, JF, Flagler, ND, Malarkey, DE, Mann, PC, Haseman, JK and Eastin, W., Spontaneous and chemically induced proliferative lesions in Tg.AC Transgenic and *p53*-heterozygous mice. *Toxicologic Pathology*, Vol. 26, No. 4, 501-511, 1998.

Boorman, G.A., Anderson, L.E., Morris, J.E., Sasser, L.B., Mann, P.C., Grumbein, S.L., Hailey, J.R., McNally, A., Sills, R.C. and Haseman, J.K., Effect of 26 week magnetic field exposures in a DMBA initiation-promotion mammary gland model in Sprague-Dawley rats. *Carcinogenesis*, Vol. 20, No. 5, 899-904, 1999.

Anderson, L.E., Boorman, G.A., Morris, J.E., Sasser, L.B., Mann, P.C., Grumbein, S.L., Hailey, J.R., McNally, A., Sills, R.C., and Haseman, J.K., Effect of 13-week magnetic field exposures on DMBA initiated mammary gland carcinomas in female Sprague-Dawley rats. *Carcinogenesis*, Vol. 20, No. 8, 1615-20, 1999.

Richardson, F.C., Tennant, B.C., Meyer, D.J., Richardson, K.A., Mann, P.C., McGinty, G.R., Wolf, J.L., Zack, P.M. and Bendele, R.A., An Evaluation of the Toxicities of 2'-Fluorouridine and 2'-Fluorocytidine-HCl in F344 Rats and Woodchucks (*Marmota monax*). *Toxicologic Pathology*, Vol. 27, No. 6, 607-617, 1999.

Ostby, J., Kelce, W.R., Lambright, C., Wolf, C.J., Mann, P., Gray, L.E., Jr., The fungicide procymidone alters sexual differentiation in the male rat by acting as an androgen-specific antagonist *in vivo* and *in vitro*. *Toxicology and Industrial Health*, Vol. 15, Nos. 1-2, 80-93. 1999.

Gary, L.E., Wolf, C., Lambright, C., Mann, P., Price, M., Cooper, R.L., Ostby, J., Administration of potentially antiandrogenic pesticides (procymidone, linuron, iprodione, chlozolinate, p,p'-DDE, and ketoconazole) and toxic substances (dibutyl- and diethylhexyl phthalate, PCB169, and ethane dimethane sulphonate) during sexual differentiation produces diverse profiles of reproductive malformations in the male rat. *Toxicology and Industrial Health*, Vol. 15, Nos. 1-2, 94-118, 1999.

Lambright, C., Ostby, J., Bobseine, K., Wilson, V., Hotchkiss, A.K., Mann, P.C., Gray, L.E. Jr., Cellular and molecular mechanism of action of linuron: An antiandrogenic herbicide that produces reproductive malformation in male rats. *Toxicological Sciences*, 56(2):230-240, 2000.

Maronpot, R.R., Mitsumori, K., Mann, P., Takaoka, M., Yamamoto, S., Usui, T., Okamiya, H., Nishiukawa, S., and Nomura, T., Interlaboratory comparison of the CB6F1-Tg rasH2 rapid carcinogenesis testing model. *Toxicology*, Vol. 146, Nos. 2-3, 149-59, 2000.

**PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P. – CONTINUED**

Floyd, E., Mann, P., Long, G., Ochoa, R., The Trp53 hemizygous mouse in pharmaceutical development: Points to consider for pathologists. *Toxicologic Pathology*, Vol. 30, No. 1, 147-156, 2002.

Lau, C., Narotsky, M.G., Lui, D., Best, D., Setzer, R.W., Mann, P.C., Wubah, J.A., Exposure-disease continuum for 2-chloro-2'-deoxyadenosine (2-CdA), a prototype teratogen: Induction of lumbar hernia in the rat and species comparison for the teratogenic responses. *Teratology*, Vol. 66, No. 1, 6-18, 2002.

Lanning LL, Creasy DM, Chapin RE, Mann PC, Barlow NJ, Regan KS and Goodman DG. Recommended approaches for the evaluation of testicular and epididymal toxicity. *Toxicologic Pathology*, Vol. 30, No. 4, 507-520, 2002.

Dykstra MJ, Mann PC, Elwell MR, and Ching SV. Suggested Standard Operating Procedures (SOPs) for the preparation of electron microscopy samples for toxicology/pathology studies in a GLP environment. *Toxicologic Pathology*, Vol. 30, No. 6, 735-743, 2002.

Wolf DC and Mann PC. Confounders in Interpreting Pathology for Safety and Risk Assessment. *Toxicology and Applied Pharmacology*, 202:302-308, 2005.

Torrey CE, Campbell JA, Hoivik DJ, Miller RT, Allen JS, Mann PC, Selinger K, Rickerf D, Savina PM and Santostefano MJ. Evaluation of the Carcinogenic Potential of Clofibrate in the p53<sup>±</sup> Mouse. *Int. J. Toxicology* 24:289-299, 2005.

Lewis JM, Maslanka JC, Malley LA, Everds NE, Mann PC, Kennedy GL Jr. Oral Toxicity Study of 2-pentenenitrile in rats with reproductive toxicity screening test. *Drug Chem Toxicol* 29(4):345-361, 2006.

Hild SA, Reel JR, Dykstra MJ, Mann PC, Marshalls GR. Acute Adverse Effects of the Indenopyridine CDB-4022 on the Ultrastructure of Sertoli Cells, Spermatocytes, and Spermatids in Rat Testes: Comparison to the Known Sertoli Cell Toxicant Di-n-pentylphthalate (DPP). *J of Androl*, 28:621-629, 2007.

Malley LA, Everds NE, Reynolds J, Mann PC, Lamb I, Rood T, Schmidt J, Layton RJ, Prochaska LM, Hinds M, Locke M, Chui CF, Claussen F, Mattsson JL, Delaney B. Subchronic feeding study of DAS-59122-7 maize grain in Sprague-Dawley rats. *Food Chem Toxicol*. Jul;45(7):1277-92, 2007. Epub 2007 Jan 25.

Hardisty JF, Elwell MR, Ernst H, Greaves P, Kolenda-Roberts H, Malarkey DE, Mann PC, Tellier PA. Histopathology of hemangiosarcomas in mice and hamsters and liposarcomas/fibrosarcomas in rats associated with PPAR agonists. *Toxicol Pathol*. 35(7):928-41, 2007.



Experimental Pathology Laboratories, Inc.

PETER CLIFFORD MANN, D.V.M., DIPLOMATE, A.C.V.P. – CONTINUED

Hoberman AM, Schreur DK, Leazer T, Daston GP, Carthew P, Re T, Loretz L, Mann P. Lack of effect of butylparaben and methylparaben on the reproductive system in male rats. Birth Defects Res B Dev Reprod Toxicol. 83(2):122-133, 2008.

Snyder PW, Mann P, Bolon B, Elmore S, Haschek-Hock W, McDorman K, Morton DM, Ochoa R, and Ryan A. The Society of Toxicologic Pathology and the "One Health" Initiative. Toxicol Pathol. 38(3): 2010.

A handwritten signature in black ink that reads "Peter C. Mann".

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APRIL 23, 2010  
Date

**JAMES B. NOLD**  
*Biotechnics*

**Formal Education:**

1985	Colorado State University Fort Collins, CO PhD Pathology
1980	The Armed Forces Institute of Pathology Washington, DC Pathology Residency Diploma
1973	Ohio State University Columbus, OH DVM

**Board Certifications and Licensure:**

Diplomate, American College of Veterinary Pathologists, 1980

**Professional Experience:**

WIL Research Laboratories, LLC/Biotechnics  
Hillsborough, NC

02/09/09 - Present      Position: Senior Pathologist  
                                  Pathology

Performs microscopic examination of material obtained from various in-house studies utilizing different species. These will include acute, subacute and chronic studies. Records the microscopic findings in the on-line computer system utilizing the pathology master list of terms or microscopic lesions established for the given species or organ. Correlates the clinical pathology data with the microscopic observations. Writes the pathology summary, which includes organ weight, gross, microscopic and clinical pathology interpretations on various studies. Provides consultation to the necropsy group during the examination of individual animals sacrificed or which died on study. Provides direction and professional consultation for the department during the absence of the Director. Scientific and technical adviser for necropsy and histology labs. Maintains professional level of expertise by attending scientific meetings,

**Professional Experience (Continued):**

reading appropriate professional journals, and participating in professional organizations. Special interests in neuropathology include brain morphometry in developmental toxicity studies. Assists with the clinical care of study animals.

GlaxoSmithKline  
Research Triangle Park, NC

2003 - 2009

Position: Director of Morphologic Pathology  
Safety Assessment, Pathology

Directed the histology and necropsy service function and supervised the Manager of Necropsy and Laboratory Services. Managed the contracted histopathology workload and assisted in scheduling and assignment of studies. Provided pathology support to both research and development functions, including consultation and collaboration on target and chemical class liability, animal model selection, and investigative and regulatory study design, as well as gross, microscopic and molecular pathologic evaluation and data interpretation of target localization and biological profiling, investigational, and regulatory studies.

2001 - 2003

Position: Director of Regulatory & Discovery Pathology  
Safety Assessment, Pathology

Provided pathology support to both research and development functions, including consultation and collaboration on target and chemical class liability, animal model selection, and investigative and regulatory study design, as well as gross, microscopic and molecular pathologic evaluation and data interpretation of target localization and biological profiling, investigational, and regulatory studies.

Pathology Associates  
A Charles River Company  
Durham, NC

1997 - 2001

Position: Division Director

Was responsible for the overall operation of the North Carolina Division for Pathology Associates – A Charles River Company. Served as the senior administrator of the group and directly

**Professional Experience (Continued):**

supervises five doctorate level scientists and the Division Director. Served as a study pathologist and as a business development representative for the organization. Specialized in general toxicologic pathology and electron microscopy. The North Carolina Division currently has a staff of 20 personnel.

Covance Laboratories, Inc.  
Pathology Department  
Madison, WI

1993 – 1996

Position: Director of Pathology

Responsible for all administrative functions of the department and for the scientific direction of the Anatomical Pathology Section (which includes necropsy and histology) and the Clinical Pathology Section (which includes hematology and clinical chemistry). Directly supervised five anatomical pathologists, one clinical pathologist, the section supervisors of the Anatomic Pathology Section, and an administrative assistant. Also served as a study pathologist. Special interests in morphometry, immunopathology, and general toxicologic pathology.

Corning Hazleton, Inc.  
Pathology Department  
Madison, WI

1990 - 1993

Position: Pathologist

Study pathologist for acute, subchronic, chronic, and reproductive toxicology, and oncogenicity studies using rats, mice, dogs, rabbits, nonhuman primates, and domestic livestock as the experimental animals. Supervised the macroscopic examination of the test animals, evaluated the prepared tissues, and wrote the pathology portion of the study reports.

Specialized in morphometry and immunohistochemistry techniques. Radiation pathology, immunopathology, and acute toxicologic pathology were particular areas of interest.

**Articles:**

Quaile, M.P.; Melich, D.H.; Jordan, H.L.; Nold, J.B.; Chism, J.P.; Polli, J.W.; Smith, G.A.; Rhodes, M.C. Toxicity and toxicokinetics of metformin in rats. *Toxicology and Applied Pharmacology* **2010**, 243, 340-347.

Frazier, K.; Thomas, R.A.; Scicchitano, M.S.; Mirabile, R.C.; Boyce, R.W.; Zimmerman, D.M.; Grygielko, E.T.; Nold, J.; DeGouville, A-CM.; Huet, S.R.; Laping, N.J.; Gellibert, F.J. Inhibition of ALK5 signaling induces physeal dysplasia in rat. *Toxicol. Pathol.* **2007** 35, 284-2007.

Hoivik, D.J.; Allen, J.S.; Wall, H.G.; Nold, J.B.; Miller, R.T.; Santostefano, M.J. Studies evaluating the utility of *N*-methyl-*N*-nitrosurea as a positive control in carcinogenicity studies in the p53<sup>+/−</sup> mouse. *International Journal of Toxicology* **2005**, 24, 349-356.

Vahle, J.L.; Sato, M.; Long, G.G.; Young, J.K.; Francis, P.C.; Engelhardt, J.A.; Westmore M.S.; Ma, Y.L.; Nold, J.B. Skeletal changes in rats given daily subcutaneous injections of recombinant human parathyroid hormone (1-34) for 2 years and relevance to human safety. *Toxicol. Pathol.* **2002**, 30(3), 312-321.

Elangbam, C.S.; Brodie, T.A.; Brown, H.R.; Nold, J.B.; Raczniak, T.J.; Tyler, R.D.; Lightfoot RM, and Wall HG: Vascular effects of GI262570X (PPAR-γ agonist) in the brown adipose tissue of Han Wistar rats: a review of 1-month, 13-week, 27-week and 2-year oral toxicity studies. *Toxicol. Pathol.* **2002**, 30(4), 420-426.

Nyska, A.; Nold, J.B.; Johnson, J.D.; Abdo, K. Lysosomal-storage disorder induced by Elmiron following 90-days gavage administration in rats and mice. *Toxicol Pathol.* **2002**, 30(2), 178-187.

Nold J.B.; Keenan, K.P.; Nyska, A.; Cartwright, M.E.; Society of toxicologic pathology position paper: diet as a variable in rodent toxicology and carcinogenicity studies. *Toxicol Pathol* **2001**, 29(5), 585-586.

Cunningham, M.L.; Price, H.C.; O'Connor, R.W.; Moorman, M.P.; Mahler, J.F.; Nold, J.B.; Morgan, D.I. Inhalation toxicity studies of the alpha, beta-unsaturated ketones: 2-cyclohexene-1-one. *Inhal Toxicol* **2001**, 13(1), 25-36.

Herrera, J.; Gage, T.; Vigneulle, R.M.; Nold, J.B.; Dubois, A. Effects of radiation and radioprotection on small intestinal functions in canines. *Dig Dis Sci* **1995**, 40(1), 211-218.

Baker, W.H.; Nold, J.B.; Patchen, M.L.; Jackson, W.E. Histopathologic effects of soluble glucan and WR-2721, independently and combined in CeH/HeN mice. *Proceedings Society Experimental Biology and Medicine* **1992**, 201(2), 180-91.

Nold, J.B.; Petrali, J.P.; Wall, H.G.; Moore, D.H. Progressive pathology of two organofluorine compounds in rats. *Inhalation Toxicology* **1991**, 3,123-137.

Keeler, J.R.; Hurt, H.H.; Nold, J.B.; Corcoran, K.D.; Tezak-Reid, I.M. Phosgene-induced lung injury in the sheep. *Inhalation Toxicology* **1990**, *2*, 391-406.

**Articles (Continued):**

Keeler, J.R.; Hurt, H.H.; Nold, J.B.; Lennox, W.J. Estimation of the LC<sub>50</sub> of phosgene in sheep. *Drug and Chemical Toxicology* **1990**, *13(2 and 3)*, 229-239.

Hayward, I. J.; Wall, H.G.; Jaax, N.K.; Wade, J.V.; Marlow, D.D.; Nold, J.B. Decreased brain pathology in organophosphate-exposed rhesus monkeys following benzodiazepine therapy. *Journal of the Neurological Sciences* **1990**, *98*, 99-106.

Vigneulle, R.M.; Herrera, J.; Gage, T.; MacVittie, T.J.; Mohaupt, T.; Zeman, G.; Nold, J.B.; Dubois, A. Nonuniform irradiation of the canine intestines, I. effects. *Radiation Research* **1990**, *121*, 46-53.

Keeler, J.R.; Hurt, H.H.; Nold, J.B.; Lennox, W.J. Estimation of the LC<sub>50</sub> of phosgene in sheep. *Drug Chem Toxicol* **1990**, *13(2-3)*, 229-39.

Hayward I.J.; Wall, H.G.; Jaax, N.K.; Wade, J.V.; Marlow, D.D.; Nold, J.B. Influence of Therapy with Anticonvulsant Compounds on the Effects of Acute Soman Intoxication in Rhesus Monkeys, USAMRICD-TR-88-12, USAMRDC, Ft. Detrick, Maryland, **1988**.

Nold, J.B.; Weichbrod, R.H.; Alderks, E.C. What's your diagnosis? Stomach nodules in pigeons (tetrameriasis). *Laboratory Animal* **1988**, *17*, 11-12.

Nold, J.B.; Benjamin, S. A.; Miller, G.K. Alterations in immune responses in prenatally irradiated dogs. *Radiation Research* **1988**, *115*, 472-488.

Nold, J.B.; Benjamin, S.A.; Miller, G.H. Prenatal and neonatal irradiation in dogs: hematologic and hematopoietic responses, *Radiation Research* **1987**, *112*, 490-499.

Bogo, V.; Hill, T.A.; Nold, J.B. Motor performance effects of propyleneglycol dinitrate in the rat. *Journal of Toxicology and Environmental Health* **1987**, *22*, 17-27.

Nold, J.B.; Benjamin, S.A.; Miller, G.H. Radiation injury to the canine thymus and Lymphohematopoietic stem cells: correlation with functional immunological deficits, DNA-TR-86-207, Defense Nuclear Agency, Armed Forces Radiobiology Research Institute, Bethesda, Maryland, **1986**.

Mehm, W.J.; Nold, J.B.; Zernach, R.C. Topical effects of molten salt on rat integument: a histological and photometric assessment. *Aviation, Space, and Environmental Medicine*, **1986**, *57*, 362-366.

Cockerham, L.G.; Doyle, T.F.; Trumbo, R.B.; Nold, J.B. Acute post-irradiation canine

intestinal blood flow. *International Journal of Radiation Biology* **1984**, 45, 65-72.

Nold, J.B.; Powers, B.E.; Eden, E.L., McChesney, A.E. Ameloblastic odontoma in a dog. *Journal of the American Veterinary Medical Association* **1984**, 185, 996-997.

**Articles (Continued):**

Hamilton, H.B.; Severin, G.A.; Nold, J.B. Pulmonary squamous cell carcinoma with intraocular metastasis in a cat. *Journal of the American Medical Association* **1984**, 185, 307-309.

Nold, J.B.; Swanson, T.; Spraker, T.R. Bacillus piliformis infection (Tyzzer's disease) in a Colorado foal. *Journal of the American Veterinary Medical Association* **1984**, 185, 306-307.

Ege, G.N.; Nold, J.B.; Eng, R.R.; Durakovic, A.; Conklin, J.J. Effects of a metastatic (13262) and nonmetastatic (R3230AC) mammary adenocarcinoma on radiocolloid localization in regional lymph nodes in Fischer 344 rats. *RES: Journal of the Reticuloendothelial Society* **1983**, 34, 449-462.

Gardiner, C.H.; Nold, J.B.; Sanders, J.E. Diagnostic exercise. *Laboratory Animal Science* **1982**, 32, 601-602.

**Books:**

Bogo, V.; Young, R.W.; Hill, T.A.; Cartledge, R.M.; Nold, J.B.; Parker, G.A. Neurobehavioral toxicology of petroleum- and Shale-derived jet propulsion fuel no. 5 (JP5). In *Advances in Modern Environmental Toxicology*; MacFarland, H.N; Holdsworth, E.C.; MacGregor, J.A.; Call, R.W.; Lane, M.L. Eds.; Princeton Scientific Publishers: Princeton, NJ, **1984**; Vol VI, pp. 17-32.

**Abstracts:**

Ariazi, J.L.; Luo, L.; Adams, D.F.; Biju, M.; Pan, X-Q.; Pappalardi, M.; McNulty, D.; Nold J.B.; Chomo, M.; Biology of GSK1278863A, a prolyl hydroxylase inhibitor for the treatment of anemia. SciNovations, March 4, 2008, Upper Merion, GSK, 2008.

Chandra, S.A.; Hamilton, B.F.; Nold, J.B.; Lightfoot, R.M.; Walker, D.S. Fourier transform infrared microscopy (FTIRM) for identification of crystal deposits in formalin fixed paraffin embedded tissue sections. *Toxicologic Pathology* **2005**, 33(1), 202.

Frazier, K.D.; Nold, J.B.; Scicchitano, M.S.; Thomas, R.; Dalmas, D.; Grygielko, E.; Laping, N.; Gellibert, F.; DeGouville, A.; Huet, S. Physeal hypertrophy is a pharmacologic biomarker for transforming growth factor-beta receptor inhibitory activity in rats. *Vet. Pathol.* **2004**, 41(5), 588.

Cunningham, M.L.; Price, H.C.; Nold, J.B.; O'Connor, R.W.; Moorman, M.P.; Morgan, D.L. 13 week inhalation toxicity studies of 2-cyclohexene-1-one. *The Toxicologist* **1999**,

Abstract #P38.

**Abstracts (Continued):**

Palmer, T.E.; Nold, J.; Palazzolo, M.; Ryan, T. Fibrosarcomas Associated with Passive Integrated Transponder Implants," Abstract. 16th International Symposium, Society of Toxicologic Pathologists, Beaver Creek, Colorado, June 22-26, 1997.

Boysen, B.; Nold, J.B.; Alsaker, R.; Weiler, M.; Meehan, J. A method for preparing sections and documenting the neurohistopathologic evaluation of subanatomic areas of rat brain in regulated neurotoxicity studies, *Veterinary Pathology* 1993, 30(5), 464.

Assaad, A., Trotz, M., Moore, D., Nold, J. B., Corcoran, K., Dewey, H., Phillips, K., and Said, S.: "Release of Cyclooxygenase Metabolites following Perfluoroisobutylene (PFIB)-Induced Acute Lung Injury and Pulmonary Edema," The 1991 Annual Meeting of the American Lung Association/American Thoracic Society, Anaheim, California, 1991.

Assaad, A.; Moore, D.; Nold, J.B.; Tucker, S.; Corcoran, K.; Dewey, H.; Phillips, K. Hematology and serum chemistry of sheep exposed to a toxic dose of perfluoroisobutylene. *The Toxicologist* 1991, Abstract #331.

Assaad, A.; Nold, J.B.; Petrali, J.; Moore, D.; Mitcheltree, L.; Corcoran, K.; Phillips, K. Pulmonary pathological alterations in sheep exposed to a lethal dose of phosgene," 75th Annual Meeting of the Federation of American Societies for Experimental Biology (FASEB), Atlanta, Georgia, 1991

Assaad, A.; Trotz, M.; Moore, D.; Nold, J.B.; Corcoran, K.; Dewey, H.; Phillips, K.; Said, S. Biochemical markers of acute lung injury in the bronchoalveolar lavage of sheep exposed to a toxic dose of perfluoroisobutylene. *International Journal of Toxicology* 1990, Abstract #P15.

Assaad, A.; Moore, D.; Nold, J.B.; Tucker, S.; Corcoran, K.; Dewey, H.; Phillips, K. Hematology and serum chemistry of sheep exposed to lethal doses of phosgene. *International Journal of Toxicology* 1990, Abstract #P20.

Assaad, A.; Trotz, M.; Moore, D.; Nold, J.B.; Corcoran, K.; Hurt, H.; Keeler, J.; Phillips, K.; Said, S.I. Arachidonic acid metabolites as early markers of phosgene-induced acute lung injury and pulmonary edema. *American Review of Respiratory Disease* 1990, 41(4), A420.

Nold, J. B.: OP-induced pathology, introduction and overview. *Proceedings, of the Workshop on Convulsions and Related Brain Damage Induced by Organophosphorus Agents* 1990, 11-17.

Nold, J. B., Gruber, D. F., Heman-Ackah, Y. D., Farese, A. M.: "Morphometric Changes

in Rat Spleen following Irradiation, Thermal Injury, and Combined Injury," 37th Annual Meeting of the Radiation Research Society, Abstract EK-21, Seattle, Washington, 1989.

**Abstracts (Continued):**

Vigneulle, R. M., Nold, J. B., Dubois, A., White, M., Heman-Ackah, L. M., and Schwartz, G. M.: "Effects of WR2721 on Mucosal Cell Pathology of the Small Intestines in Irradiated Dogs," *Proceedings, XII International Meeting of the Society for Analytical Cytology*, Cambridge, England, 1987.

Walden, T. L. Jr., Speicher, J., Nold, J., and Snyder, S.: "16,16-Dimethyl Prostaglandin E2, a Radioprotective Agent, Increases the Intestinal Diamine Oxidase Levels in Unirradiated Mice," *Proceedings, 8th International Congress of Radiation Research*, Edinburgh, Scotland, 1987.

Vigneulle, R. M., Herrera, J., Gage, T., Sellitti, D., MacVittie, T. J., Mohaupt, T., Rollins, T., Heman-Ackah, L. M., White, M., Kreft, D., Nold, J. B., and Dubois, A.: "Protective Effects of WR2721 on Intestinal Mucosa in Irradiated Dogs," *Proceedings, 8th International Congress of Radiation Research*, Edinburgh, Scotland, 1987.

Vigneulle, R.M.; Herrera, J., Gage, T., MacVittie, T. J., Mohaupt, T., Robbins, P., Heman-Ackah, L. M., White, M., Kreft, D., Nold, J. B., DeBell, R. and Dubois, A.: "Combined Intestinal and Hematopoietic Radioprotection with WR2721 in Dogs," Perspectives in Radioprotection Symposium, Armed Forces Radiobiology Research Institute, Bethesda, Maryland, 1987.

Vigneulle, R.M.; Herrera, J.; Gage, T.; Sellitti, D.; MacVittie, T.J.; Mohaupt, T.; Heman-Ackah, L.M.; Nold, J.B.; Dubois, A. Function of intestinal mucosa in dogs following irradiation utilizing an isoperistaltic ileostomy. *Federation Proceedings* 1987, 46, 4447A.

MacVittie, T.J.; Monroy, R.; Vigneulle, R.; Nold, J.B.; Patchen, M., Zeman, G. Treatment of radiation-induced hemopoietic syndrome in canines. RSG I I, IVth Symposium the Provision for Blood for Military Casualties, Lyon-Bron, France, 1986.

Miller, G.K.; Benjamin, S.A.; Nold, J.B. Developmental injury, postnatal immune function, and lymphoproliferative neoplasia in the dog. *Proceedings* 1986, 123.

DeBell, R.M.; Ledney, G.D.; Nold, J.B.; Snyder, S. Diamine oxidase: a marker for intestinal mucosal integrity after trauma. *Journal of Leukocyte Biology* 1986, 40, 238.

Miller, G.K.; Nold, J.B.; Benjamin, S.A. Prenatal and neonatal radiation injury and immunologic development. *Laboratory Investigation* 1986, 54, 43A.

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Experimental Pathology Laboratories, Inc.

**ROBERT R. MARONPOT  
SENIOR PATHOLOGIST**

**EDUCATION:**

Michigan State University, B.S., 1963  
Michigan State University, D.V.M., 1965  
Michigan State University, M.S., 1966  
Harvard University, M.P.H., 1972

**PRESENT POSITION AND BACKGROUND:**

- |                |  |
|----------------|--|
| 2008 – Present | Senior Pathologist, Experimental Pathology Laboratories, Inc.<br>Research Triangle Park, NC  |
| 2007 – Present | Maronpot Consulting, LLC, 1612 Medfield Road<br>Raleigh, NC  |
| 1992 - 2006    | Chief, Laboratory of Experimental Pathology, Environmental Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC                 |
| 1991 - 1992    | Chief, Experimental Toxicology Branch, National Toxicology Program<br>National Institute of Environmental Health Sciences,<br>Research Triangle Park, NC                       |
| 1990 - 1991    | Head, Cancer Genetics & Molecular Pathology, Experimental Carcinogenesis & Mutagenesis Branch, National Institute of Environmental Health Sciences, Research Triangle Park, NC |
| 1989 - 1993    | Board of Directors, American Board of Toxicology, Washington, D.C.<br>University of North Carolina, Chapel Hill, N.C.  |
| 1981 - 1990    | Head, Experimental Pathology, Chemical Pathology Branch, National Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC          |
| 1978 - 1981    | Senior Fellow, Bushy Run Research Center, Carnegie-Mellon University<br>4400 Fifth Avenue, Pittsburgh, Pennsylvania  |
| 1975 - 1978    | Head, Pathology Department, Chemical Hygiene Fellowship, Carnegie-Mellon Institute of Research, 4400 Fifth Avenue, Pittsburgh, Pennsylvania                                    |
| 1974 - 1975    | Head, Research Animal Facility   |
| 1974 - 1975    | Acting Head, Experimental Pathology Division, Naylor Dana Institute for Disease Prevention, American Health Foundation, Valhalla, New York                                     |



Experimental Pathology Laboratories, Inc.

## ROBERT R. MARONPOT, DVM, MS, MPH

### PRESENT POSITION AND BACKGROUND: – Continued

1974 - 1975	Clinical Assistant Professor of Pathology, New York Medical College, Valhalla, New York
1975	Consultant in Veterinary Pathology, Memorial Sloan-Kettering Cancer Research Center, New York, New York
1972 - 1974	Research Fellow in Comparative Pathology, Pathology Department, Harvard Medical School and Angell Memorial Animal Hospital Boston, Massachusetts
1971 - 1972	Research Fellow in Public Health, Microbiology Department, Harvard School of Public Health, Boston Massachusetts Valhalla, New York
1968 - 1971	Head, Veterinary Medicine Department, U.S. Naval Medical Research Unit #3 Cairo, Egypt
1966 - 1968	Veterinary Laboratory Officer, Veterinary Corps, U.S. Army Pathology Division, U.S. Army Medical Research and Nutrition Laboratory, Denver, Colorado
1965 - 1966	NIH Postdoctoral Fellow, Pathology Department, Michigan State University, East Lansing, Michigan

### PROFESSIONAL MEMBERSHIPS:

American College of Veterinary Pathologists

Society of Toxicologic Pathologists

Society of Toxicology

### SPECIALTY BOARDS & HONORS:

Diplomate, American College of Veterinary Pathologists, 1973

Diplomate, American Board of Toxicology, 1980

Distinguished Postdoctoral Veterinary Alumnus Award from

Michigan State University College of Veterinary Medicine - 2000

President, Society of Toxicologic Pathology - 2001-2002

Editor-in-Chief, Toxicologic Pathology – 2001-2004



Experimental Pathology Laboratories, Inc.

## ROBERT R. MARONPOT, DVM, MS, MPH

### SELECTED NATIONAL & INTERNATIONAL INVITED PRESENTATIONS SINCE 2007:

#### 2007 Lectures

- Society of Toxicology Annual Meeting  
Charlotte, NC – March 2007  
Lectured at a Continuing Education Course  
Rodent Imaging Overview for the Toxicologist  
“Magnetic Resonance Imaging”
- 7th Biennial Industrial Toxicology & Pathology Short Course  
University of Illinois – July 2007  
“Carcinogenicity Assessment”  
and  
“Application of Multimodality Imaging in Toxicologic Pathology”
- American Association for Laboratory Animal Science Annual Meeting  
Charlotte, NC – October 2007  
The Wallace P. Rowe Lecture  
“The Cancer Bioassay: Challenges for the Future”  
and  
Seminar on Current Imaging Modalities for Rodent Xenograft Models  
“MRI Imaging Systems”
- National Academy of Science Workshop on Mouse Liver Tumors  
Washington, DC – November 2007  
“Mouse Models for Carcinogenicity”
- American College of Veterinary Pathologists  
Savannah, Georgia – November 2007  
Lectured at a Continuing Education Course  
Rodent Imaging Overview for the Pathologist  
“Magnetic Resonance Imaging”

#### 2008 Lectures

- ILSI Annual Meeting  
Rio Grande, Puerto Rico – January 2008  
Organized symposium on “Applications of Small Animal Imaging in Toxicology Research and Testing”  
Lectured on “Application of Magnetic Resonance Imaging in Toxicology and Toxicologic Pathology”
- NIEHS  
February 2008  
Lecture on “Comparative Medicine Branch Pathology/Case Presentations”
- Aperio Research Triangle Park Digital Pathology Seminar  
May 13, 2008  
Lecture on “Digital Pathology for Peer Review and Phenotyping”



Experimental Pathology Laboratories, Inc.

## ROBERT R. MARONPOT, DVM, MS, MPH

### SELECTED NATIONAL & INTERNATIONAL INVITED PRESENTATIONS SINCE 2007: Continued

- NTP Satellite Symposium, STP Annual meeting  
Conundrums in Toxicologic Pathology  
June 21, 2008, San Francisco
- 2nd East Mediterranean ICLAS Regional Meeting  
“Overview of Imaging Modalities and Control of Small Animal Physiology During Live Imaging” and “Application of MRI in Toxicology and Toxicologic Pathology”  
Jerusalem, Israel, December 3-4, 2008.
- TEVA Pharmaceutical Company, Israel  
“The Cancer Bioassay: Past, Present, Future”  
December 8, 2008

### EDITORIAL REVIEW BOARD:

- Editor – Toxicologic Pathology (2001- 2004)  
Editorial Board – Toxicologic Pathology (1986-2001)  
Section Editor, Laboratory Animal Pathology (1996-2001)  
Editorial Board – Drug and Chemical Toxicology (1986-1992)  
Editorial Board – Fundamental and Applied Toxicology (1985-1991)  
Editorial Review Board – Environmental Health Perspectives (1985-1992) (1994-1997)  
Editorial Board – Toxicology (1988-1998)  
Senior Advisor – Toxicologic Pathology (2005-present)  
Editorial Board – Experimental & Toxicologic Pathology (2001-present)

### EDITORIAL ACTIVITIES:

- Ad hoc Reviewer  
Comparative Medicine  
Carcinogenesis  
Molecular Carcinogenesis  
Cancer  
International Journal of Cancer  
Toxicological Sciences  
Cancer Research  
American Journal of Pathology  
Proceedings of the National Academy of Sciences (USA)  
American Journal of Respiratory Cell & Molecular Biology  
Food and Chemical Toxicology



**ROBERT R. MARONPOT, DVM, MS, MPH**

**PUBLICATIONS AND PAPERS:**

Maronpot RR and Whitehair CK, 1967. Experimental Sprue-like Small Intestinal Lesions in Pigs. Can. J. Comp. Med. 31:309-316.

Maronpot RR, Stedman MA, and Bucci TJ, 1968. Focal Degenerative Myopathy in Turkeys. Avian Dis. 12:96-103.

Stedham MA, Bucci TJ, and Maronpot RR, 1968. Sexual and Asexual Phases of Aspergillus Nidulans in an Egret. Myopath. et Mycologia Appli. 36:289-292.

Maronpot RR and Michael SA, 1968. Toxoplasmosis in Sheep. A Review. J. Egypt. Vet. Med. Assoc. 28:155-163.

Maronpot RR and Guindy E, 1970. Preliminary Study of *Babesia Gibsoni* Patton in Wild Carnivores and Domesticated Dogs in Egypt. Amer. J. Vet. Res. 31:797-799.

Maronpot RR and Ezzat E, 1970. Hematologic Values for Cairo Dogs. Proc. 9th Arab Vet. Congress, Cairo, Egypt. pp. 124-134.

Maronpot RR and Abd El Hei Refaii, 1970. The Histopathology of *Kloisiella Equi* in Egyptian Equines. Proc. 9th Arab Vet. Congress, Cairo, Egypt. pp. 226-235.

Botros BA M, Awad AY, Kozman AR, Hildebrandt PK, and Maronpot RR, 1970. Hematologic, Blood Electrolyte and Blood Biochemical Values of Egyptian Domesticated Animals. J. Egypt. Vet. Med. Assoc. 30:53-61.

Michael SA, Maronpot RR, and Botros BAM, 1970. Blood Parasites in Egyptian Animals. Proc. 9th Arab Vet. Congress, Cairo, Egypt. pp. 236-254.

Waslien CI, Maronpot RR, and Kozman AR, 1970. Nutritional Studies in the Sand Rat (*Psammomys obesus*). Pahlavi Medical J. 1:228-233.

Maronpot RR, Barsoum IS, and Ezzat E, 1971. Canine Leptospirosis in Cairo. United Arab Republic. The J. of Infectious Diseases. 123:548-550.

Wilson BJ and Maronpot RR, 1971. Causative Fungus Agent of Leukoencephalomalacia in Equine Animals. Vet. Rec. 88:484-486.

Attia MAM, Williams RE, Maronpot RR, El Mour AF, and Moussa MI, 1971. Pathogenicity of Wad Medani Virus to Selected Animals. J. Egypt. Pub. Hlth. Assoc. 46:326-336.

Maronpot RR, 1972. Erythrocyte Glucose-6-phosphate Dehydrogenase and Glutathione Deficiency in Sheep. Can. J. Comp. Med. 36:55-60.

Maronpot RR and Barsoum IS, 1972. Leptospiral Microscopic Agglutinating Antibodies in Sera of Man and Domestic Animals in Egypt. Amer. J. Trop. Med. Hyg. 21:467-472.

Maronpot RR and Botros BAM, 1972. Toxoplasma Serologic Survey in Man and Domestic Animals in Egypt. J. Egypt. Pub. Hlth. Assoc. 47:58-67.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Wilson BJ, Maronpot RR, and Hildebrandt PK, 1973. Equine Leukoencephalomalacia. *J. Amer. Vet. Med. Assoc.* 163:1293-1295.

Maronpot RR, Michael SA, and Botros BAM, 1974. Blood Parasites in Egyptian Domestic Animals. *J. Egypt. Vet. Med. Assoc.* 34:301-308.

Botros BAM and Maronpot RR, 1974. Complement-fixing and Indirect Fluorescent Antibodies in Sera of Dogs Experimentally Infected with Babesia gibsoni. *J. Egypt. Vet. Med. Assoc.* 34:309-321.

Hoffman D, Raineri R, Hecht S, Maronpot RR, and Wynder EL, 1975. A Study of Tobacco Carcinogenesis. XIV. Effects of N'-nitrosonornicotine and N'-nitrosoanabasine in Rats. *JNCI* 55:977-981.

Hecht SS, Thorne RL, Maronpot RR, and Hoffman D, 1975. A Study of Tobacco Carcinogenesis. XIII. Tumor Promoting Subfractions of the Weakly Acidic Fraction. *JNCI* 55:1329-1336.

Hecht SS, Loy M, Maronpot RR, and Hoffmann D, 1976. A Study of Chemical Carcinogenesis: Comparative Carcinogenicity of 5-Methylchrysene, Benzo (a) Pyrene and Modified Chrysenes. *Cancer Ltrs.* 1:147-153.

Narisawa T, Wong CQ, Maronpot RR, and Weisburger JH, 1976. Large Bowel Carcinogenesis in Mice and Rats by Several Intrarectal doses of Methylnitrosourea and Negative Effect of Nitrite plus Methylurea. *Cancer Res.* 36:505-510.

Maronpot RR and Chavannes JM, 1977. Dacryoadenitis, Conjunctivitis, and Facial Dermatitis of the Mouse. *Lab. Anim. Sci.* 27:277.

Anderson LM, Budinger JM, Maronpot RR, and Good RA, 1978. Transplacental Lung Tumorigenesis in the Athymic Mouse. *Cancer Res.* 38:137-141.

McGee MA and Maronpot RR, 1979. Harderian Gland Dacryoadenitis in Rats Resulting from Orbital Bleeding. *Lab. Anim. Sci.* 29:639-641.

Burton DS, Maronpot RR, and Howard FL, 1979. Frequency of Hydronephrosis in Wistar Rats. *Lab. Anim. Sci.* 29:642-644.

Maronpot RR and Peterson LG, 1981. Spontaneous Proteus Nephritis Among Male C3H/HeJ Mice. *Lab. Anim. Sci.* 31:697-700.

Snellings WM, Maronpot RR, Zelenak JP, and Laffoon CP, 1982. Teratology Study in Fischer 344 Rats Exposed to Ethylene Oxide by Inhalation. *Tox. & Appl. Pharmacol.* 64:476-481.

Maronpot RR and Boorman GA, 1982. Interpretation of Rodent Hepatocellular Proliferative Alterations and Hepatocellular Tumors in Chemical Safety Assessment. *Tox. Path.* 10:71-80.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Maronpot RR, Witschi HP, Smith LH, and McCoy JL, 1983. Recent Experience with the Strain A Mouse Pulmonary Tumor Bioassay Model. In Short-Term Bioassays in the Analysis of Complex Environmental Mixtures III. Environ. Sci. Res. 27:341-350.

Dodd DE, Snellings WM, Maronpot RR, and Ballantyne B, 1983. Ethylene Glycol Monobutyl Ether: Acute, 9-day, and 90-day Vapor Inhalation Studies in Fischer 344 Rats. Tox. & Appl. Pharmacol. 68:405-414.

Maronpot RR, Zelenak JP, Weaver EV, and Smith NJ, 1983. Teratogenicity Study of Ethylene Glycol in Rats. Drug & Chem. Toxicol. 6:579-594.

Yang RSH, Garman RH, Maronpot RR, McKelvey JA, Weil CS, and Woodside MD, 1983. Acute and Subchronic Toxicity of Ethylenediamine in Laboratory Animals. Fund. & Appl. Tox. 3:512-520.

Snellings WM, Weil CS, and Maronpot RR, 1984. A Two-Year Inhalation Study of the Carcinogenic Potential of Ethylene Oxide in Fischer 344 Rats. Tox. & Appl. Pharmacol. 75:105-117.

Kluwe WM, Maronpot RR, Greenwell A, Harrington F, 1984. Interactions Between Bromobenzene Dose, Glutathione Concentrations, and Organ Toxicities in Single and Multiple Treatment Studies. Fund. & Appl. Tox. 4:1019-1028.

Snellings WM, Weil CS, and Maronpot RR, 1984. A Subchronic Inhalation Study on the Toxicologic Potential of Ethylene Oxide in B6C3F1 Mice. Tox. & Appl. Pharmacol. 76:510-518.

Agarwal DK, Maronpot RR, Lamb IV JC, and Kluwe WM, 1985. Adverse Effects of Butyl Benzyl Phthalate on the Reproductive and Hematopoietic System of Male Rats. Toxicology 35:189-206.

Choy WN, MacGregor JT, Shelby MD, and Maronpot RR, 1985. Induction of Micronuclei by Benzene in B6C3F1 Mice: Retrospective Analysis of Peripheral Blood Smears from the NTP Carcinogenesis Bioassay. Mutation Res. 143:55-59.

Ghanayem BI, Maronpot RR, and Matthews HB, 1985. Ethyl Acrylate-Induced Gastric Toxicity. I. Effect of Single and Repetitive Dosing. Tox. & Appl. Pharmacol. 80:323-335.

Ghanayem BI, Maronpot RR, and Matthews HB, 1985. Ethyl Acrylate-Induced Gastric Toxicity. II. Structure - Toxicity Relationships and Mechanism. Tox. & Appl. Pharmacol. 80:336- 344.

Garman RH, Snellings WM, and Maronpot RR, 1985. Brain Tumors in F344 Rats Associated with Chronic Inhalation Exposure to Ethylene Oxide . NeuroToxicology 6:117-138.

Lamb JC, Maronpot RR, Gulati DK, Russell VS, Hommel L, and Sabharwal PS, 1985. Reproductive and Developmental Toxicity of Ethylene Glycol in the Mouse. Tox. & Appl. Pharmacol. 81:100-112.

Dieter MP, Maronpot RR, and French JF, 1985. Comparison of the Morphology and Enzyme Activity of Mononuclear Cells From Fischer 344 Rats with Either Spontaneous or Transplanted Leukemia. Cancer Res. 45:4301-4307.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Cline JM and Maronpot RR, 1985. Variations in the Histologic Distribution of Rat Bone Marrow Cells with Respect to Age and Anatomic Site. *Tox. Path.* 13:349-355.

DePass LR, Maronpot RR, and Weil WS, 1985. Dermal Oncogenicity Bioassays of Monofunctional and Multifunctional Acrylates and Acrylate-based Oligomers. *J. Tox. and Environ. Hlth.* 16:55-60.

DePass LR, Garman RH, Woodside MD, Boyce JT, Giddens WE, Maronpot RR, and Weil CS, 1986. Chronic Toxicity and Oncogenicity Studies of Ethylene Glycol in Rats and Mice. *Fund. & Appl. Tox.* 7:547-565.

DePass LR, Woodside MD, Maronpot RR, and Weil CS, 1986. Three-Generation Reproduction and Dominant Lethal Mutagenesis Studies of Ethylene Glycol in the Rat. *Fund. & Appl. Tox.* 7:566- 572.

Garman RH, Snellings WM, and Maronpot RR, 1986. Frequency, Size and Location of Brain Tumours in F-344 Rats Chronically Exposed to Ethylene Oxide. *Fd. Chem. Tox.* 24(2):145-153.

Reynolds SH, Stowers SJ, Maronpot RR, Anderson MW, and Aaronson SA, 1986. Detection and Identification of Activated Oncogenes in Spontaneously Occurring Benign and Malignant Hepatocellular Tumors of the B6C3F1 Mouse. *Proc. Nat'l. Acad. Sci.* 83:33-37.

Klinger W, Devereux T, Maronpot RR, and Fouts J, 1986. Functional Hepatocellular Heterogeneity Determined by the Hepatotoxins Allyl Alcohol and Bromobenzene in Immature and Adult F344 Rats. *Tox. & Appl. Pharmacol.* 83:108-114.

Maronpot RR, Montgomery CA, Boorman GA, and McConnell EE, 1986. National Toxicology Program Nomenclature for Hepatoproliferative Lesions of Rats. *Tox. Path.* 14:163-273.

Maronpot RR, Shimkin MB, Smith LH, Witschi HP, and Cline JM, 1986. Strain A Mouse Pulmonary Tumor Test Results for Chemicals Previously Tested in the National Cancer Institute Carcinogenicity Tests. *JNCI.* 76:1101-1112.

Maronpot RR, Miller RA, Clarke WJ, Westerberg RB, Decker JR, and Moss OR, 1986. Toxicity of Formaldehyde Vapor in B6C3F1 Mice Exposed For 13 Weeks. *Toxicology* 41:253-266.

Ghanayem BI, Maronpot RR, and Matthews HB, 1986. Association of Chemically Induced Forestomach Cell Proliferation and Carcinogenesis. *Cancer Ltrs.* 32:271-278.

Ghanayem BI, Maronpot RR, and Matthews HB, 1986. Ethyl Acrylate-Induced Gastric Toxicity. III. Development and Recovery of Lesions. *Tox. & Appl. Pharmacol.* 83:576-583.

Boorman GA, Hong HL, Jameson CW, Yoshitomi K, and Maronpot RR, 1986. Regression of Methyl Bromide Induced Forestomach Lesions in the Rat. *Tox. & Appl. Pharmacol.* 86:131-139.

Yoshitomi K, Maronpot RR, Solleveld HA, and Boorman GA, 1986. Forestomach Ulcers in Crj:B6C3 (C57BL/6NCrj x C3H/HeNCrj) F1 Mice. *Lab. Anim. Sci.* 36(5):501-503.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Wilson WE, Hudson PM, Kanamatsu T, Walsh TJ, Tilson HA, Hong JS, Maronpot RR, and Thompson M, 1986. Trimethyltin- Induced Alterations in Brain Amino Acids, Amines and Amine Metabolites: Relationship to Hyperammonemia. *NeuroToxicology* 7(3):63-74.

Dieter MP, Maronpot RR, and French JE, 1987. Biochemical Markers for Fischer Rat Leukemia in a Cell Transplant Model. *Cancer Detection and Prevention* 10:425-433.

Ghanayem BI, Matthews HB, and Maronpot RR, 1987. Calcium Channel Blockers Protect Against Ethanol - and Indomethacin- Induced Gastric Lesions in Rats. *Gastroenterology* 92:106-111.

Miller BE, Chapin RE, Pinkerton KE, Gilmore LB, Maronpot RR, and Hook GER, 1987. Quantitation of Silica-Induced Type II Cell Hyperplasia by Using Alkaline Phosphatase Histochemistry in Glycol Methacrylate Embedded Lung. *Exp. Lung Res.* 12:135-148.

Maronpot RR, Haseman JK, Boorman GA, Eustis SE, Rao GN, and Huff JE, 1987. Liver Lesions in B6C3F1 Mice: The National Toxicology Program, Experience and Position. *Arch. Toxicol. Suppl.* 10:10-26.

Mitsumori K, Maronpot RR, and Boorman GA, 1987. Spontaneous Tumors of the Meninges in Rats. *Vet. Path.* 24:50-58.

Melnick RL, Jameson CW, Goehl TJ, Maronpot RR, Collins BJ, Greenwell A, Harrington FW, Wilson RE, Tomaszewski KE, and Agarwal DK, 1987. Application of Microencapsulation for Toxicology Studies. II. Toxicity of Microencapsulated Trichloroethylene in Fischer 344 Rats. *Fund. & App. Tox.* 8:432-442.

Maronpot RR, 1987. Ovarian Toxicity and Carcinogenicity in Eight Recent National Toxicology Program Studies. *EHP* 73:125-130.

Campen DB, Sloop TC, Maronpot RR, and Lucier GW, 1987. Continued Development of Hepatic g-Glutamyltranspeptidase - Positive Foci Upon Withdrawal of 17-a-Ethynodiol in Diethylnitrosamine-initiated Rats. *Cancer Res.* 47:2328-2333.

Stowers SJ, Glover PL, Reynolds SH, Boone LR, Maronpot RR, and Anderson MW, 1987. Activation of the K-ras Protooncogene in Lung Tumors from Rats and Mice Chronically Exposed to Tetranitromethane. *Cancer Res.* 47:3212-3219.

Hsieh LL, Hsiao WL, Peraino C, Maronpot RR, and Weinstein IB, 1987. Expression of Retroviral Sequences and Oncogenes in Rat Liver Tumors Induced by Diethylnitrosamine. *Cancer Res.* 47:3421-3424.

Belinsky SA, Walker VE, Maronpot RR, Swenberg JA, and Anderson MW, 1987. Molecular Dosimetry of DNA Adduct Formation and Cell Toxicity in Rat Nasal Mucosa Following Exposure to the Tobacco Specific Nitrosamine (N-Methyl-N-nitrosamino)-1-(3-pyridyl)-1-butanone and their Relationship to Induction of Neoplasia. *Cancer Res.* 47:6058-6065.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Mitsumori K, Dittrich KL, Stefanski S, Talley FA, and Maronpot RR, 1987. Immunohistochemical and Electron Microscopic Study of Meningeal Granular Cell Tumors in Rats. *Vet. Path.* 24:356-359.

Ghanayem BI, Blair P, Thompson MB, Maronpot RR, and Matthews HB, 1987. Effect of Age on the Toxicity and Metabolism of Ethylene Glycol Monobutyl Ether (2-Butoxyethanol) in Rats. *Tox. & Appl. Pharmacol.* 91:222-234.

Reynolds SH, Stowers SJ, Patterson RM, Maronpot RR, Aaronson SA, and Anderson MW, 1987. Activated Oncogenes in B6C3F1 Mouse Liver Tumors: Implications For Risk Assessment. *Science* 237:1309-1316.

Stowers SJ, Maronpot RR, Reynolds SH, and Anderson MW, 1987. The Role of Oncogenes in Chemical Carcinogenesis. *EHP* 75:81-86.

Pitot HC, Goldsworthy T, Moran S, Kennan W, Glauert H, Maronpot RR, and Campbell HA, 1987. A Method to Quantitate the Relative Initiating and Promoting Potencies of Hepatocarcinogenic Agents in Their Dose-Response Relationships to Altered Hepatic Foci. *Carcinogenesis* 8:1491-1499.

Goering PL, Maronpot RR, and Fowler BA, 1988. Effect of Intratracheal Gallium Arsenide Administration on d-Aminolevulinic Acid Dehydratase in Rats: Relationship to Urinary Excretion of Aminolevulinic Acid. *Toxicol. Appl. Pharmacol.* 92:179-193.

Reynolds SH, Stowers, SJ, Patterson RM, Maronpot RR, and Anderson MW, 1988. Oncogene Activation in Spontaneous and Chemically Induced Rodent Tumors: Implications for Risk Analysis. *EHP* 78:175-177.

Hong HL, Huff JE, Luster MI, Maronpot RR, Dieter MP, Hayes HT, and Boorman GA, 1988. The Effects of Allyl Isovalerate on the Hematopoietic and Immunologic Systems in Rodents. *Fund. & Appl. Tox.* 10:655-663.

Belinsky SA, Dolan ME, White CM, Maronpot RR, Pegg AE, and Anderson MW, 1988. Cell Specific Differences in O6-Methylguanine- DNA Methyltransferase Activity and Removal of 06-Methylguanine in Rat Pulmonary Cells. *Carcinogenesis* 9:2053-2058.

Peraino C, Carnes BA, Stevens FJ, Staffeldt EF, Russell JR, Prapuolenis A, Blomquist JA, Vesselinovitch SD, and Maronpot RR, 1988. Comparative Developmental and Phenotypic Properties of Altered Hepatocyte Foci and Hepatic Tumors in Rats. *Cancer Res.* 48:4171-4178

Germolec DR, Maronpot RR, Ackermann MF, Vore SJ, Dittrich K, Rosenthal GJ, and Luster MI, 1988. Lack of a Relationship Between Immune Function and Chemically Induced Hepatocarcinogenesis in B6C3F1 Mice. *Cancer Immunology Immunotherapy* 27:121-127.

Maronpot RR, Ulland B, and Mennear J, 1988. Transplantation Characteristics, Morphologic Features, and Interpretation of Preputial Gland Neoplasia in the Fischer-344 Rat. *EHP* 77:33-36.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Dixon D, Johnson GA, Cofer GP, Hedlund L.W, and Maronpot RR, 1988. Magnetic Resonance Imaging (MRI): A New Tool in Experimental Toxicologic Pathology. *Tox. Path.* 16:386-391.

Graham MJ, Lucier GW, Linko P, Maronpot RR, Goldstein JA, 1988. Increases in Cytochrome P-450 Mediated 17-b-Estradiol 2-Hydroxylase Activity in Rat Liver Microsomes after both Acute Administration and Subchronic Administration of 2,3,7,8-Tetrachlorodibenzo-p-dioxin in a Two stage Hepatocarcinogenesis Model. *Carcinogenesis* 9:1935- 1941.

Goldstein JA, Graham MJ, Sloop T, Maronpot RR, Goodrow T, and Lucier GW, 1989. Effects of 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) on Estradiol Metabolism, Enzyme-altered Foci in a Two stage Hepatocarcinogenesis Model in Rats. *Chemosphere* 18:695-700.

Pitot HC, Goodspeed D, Dunn T, Hendrich S, Maronpot RR, and Moran S, 1989. Regulation of the Expression of Some Genes for Enzymes of Glutathione Metabolism in Hepatotoxicity and Hepatocarcinogenesis. *Tox. & Appl. Pharmacol.* 97:23-34.

You M, Candrian U, Maronpot RR, Stoner GD, and Anderson MW, 1989. Activation of the Ki-ras Protooncogene in Spontaneously Occurring and Chemically Induced Lung Tumors of the Strain A Mouse. *Proc. Natl. Acad. Sci.* 86:3070-3074.

Johnson GA, Thompson MB, Cofer GP, Campen D, and Maronpot RR, 1989. Magnetic Resonance Imaging of Hepatic Neoplasms in the Rat. *Vet. Path.* 26:303-308.

Farmer THR, Johnson GA, Cofer GP, Maronpot RR, Dixon D, and Hedlund LW, 1989. Implanted Coil MR Microscopy of Renal Pathology. *Magnetic Resonance in Medicine*. 10:310-323.

Huff JE, Haseman JK, Demarini DM, Eustis S, Maronpot RR, Peters AC, Persing RL, Chrisp CE, and Jacobs AC, 1989. Multiple-Site Carcinogenicity of Benzene in Fischer-344 Rats and B6C3F1 Mice. *EHP* 82:125-163.

Belinsky SA, Devereux TR, Maronpot RR, Stoner GD, and Anderson MW, 1989. Relationship between the Formation of Promutagenic Adducts and the Activation of the K-ras Protooncogene in Lung Tumors from A/J Mice Treated with Nitrosamines. *Cancer Res.* 49:5305-5311.

Ulland BM, Maronpot RR, Lemen JK, and Mennear JH, 1989. Transplantation Studies of Preputial Gland and Epithelial Skin Neoplasms Derived from Benzidine-based Dye Carcinogenicity Assays in Fischer 344 Male Rats. *Tox. Path.* 17:50-56.

Harada T, Maronpot RR, Morris RW, Stitzel KA, and Boorman GA, 1989. Morphological and Stereological Characterization of Hepatic Foci of Cellular Alteration in Control Fischer 344 Rats. *Tox. Path.* 17:579-593.

Pitot, HC, Campbell, HA, Maronpot R, Bawa N, Rizva TA, Xu Y, Sargent L, Dragan Y, and Pyron M, 1989. Critical Parameters in the Quantitation of the Stages of Initiation, Promotion, and Progression in One Model of Hepatocarcinogenesis in the Rat. *Tox. Path.* 17:594-612.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Johnson, GA and Maronpot RR, 1989. Magnetic Resonance Microscopy of Chemically-induced Liver Foci. *Tox. Path.* 17:613-616.

Maronpot RR, Pitot HC, and Peraino C, 1989. Use of Rat Liver Altered Focus Models for Testing Chemicals that have Completed Two-year Carcinogenicity Studies. *Tox. Path.* 17:651-662.

Maronpot RR, Harada T, Murthy ASK, and Boorman GA, 1989. Documenting Foci of Hepatocellular Alteration in Two-year Carcinogenicity Studies: Current Practices of the National Toxicology Program. *Tox. Path.* 17:675-684.

Harada T, Maronpot RR, Morris RW, and Boorman GA, 1989. Observations on Altered Hepatocellular Foci in National Toxicology Program Two-year Carcinogenicity Studies in Rats. *Tox. Path.* 17:690-708.

Reynolds SH, Patterson RM, Mennear JH, Maronpot RR, and Anderson MW, 1990. Ras Gene Activation in Rat Tumors Induced by Benzidine Congeners and Derived Dyes. *Cancer Res.* 50:266-272.

Campen D, Maronpot RR, and Lucier G, 1990. Dose-response Relationships in Promotion of Rat Hepatocarcinogenesis by 17-a-ethinylestradiol. *J. Tox. & Environ. Hlth.* 29:257-268.

Harada T, Maronpot RR, Morris RW, and Boorman GA, 1990. Effects of Mononuclear Cell Leukemia on Altered Hepatocellular Foci in Fischer 344 Rats. *Vet. Path.* 27:110-116.

Xu YH, Campbell HA, Sattler GL, Hendrich S, Maronpot R, Sato K, and Pitot HC, 1990. Quantitative Stereological Analysis of the Effects of Age and Sex on Multistage Hepatocarcinogenesis in the Rat by Use of 4 Cytochemical Markers. *Cancer Res.* 50:472-479.

Xu YH, Maronpot RR, and Pitot HC, 1990. Quantitative Stereologic Study of the Effects of Varying the Time Between Initiation and Promotion on 4 Histochemical Markers in Rat-liver During Hepatocarcinogenesis. *Carcinogenesis* 11:267-272.

Dieter MP, Jameson CW, Maronpot RR, Langenbach R, and Braun AG, 1990. The Chemotherapeutic Potential of Glycol Alkyl Ethers: Structure- activity Studies of Nine Compounds in a Fischer Rat Leukemia Transplant Model. *Cancer Chemo. & Pharmacol.* 26: 173-180.

Uraih LC and Maronpot RR, 1990. Normal Histology of the Nasal Cavity and Application of Special Techniques. *EHP* 85: 187-208.

Maronpot RR, 1990. Pathology Working Group Review of Selected Upper Respiratory Tract Lesions in Rats and Mice. *EHP* 85: 331-352.

Belinsky SA, Foley JF, White KM, Anderson MW, and Maronpot RR, 1990. Dose-response Relationship Between O6-methylguanine Formation in Clara Cells and Induction of Pulmonary Neoplasia in the Rat by 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone. *Cancer Res.* 50: 3772-3780.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Goodrow T, Reynolds S, Maronpot R, and Anderson M, 1990. Activation of K-ras by Codon 13 Mutations in C57BL/6 x C3H F1 Mouse Tumors Induced by Exposure to 1,3-butadiene. *Cancer Res.* 50: 4818-4823.

Harada T, Maronpot RR, Boorman GA, Morris RW, and Stitzel KA, 1990. Foci of Cellular Alteration in the Rat Liver: A Review. *Tox. Path.* 3:161-188.

Dittrich KL, Smith R, and Maronpot RR, 1990. Stability of Gamma-glutamyltranspeptidase (GGT) in Paraffin Embedded Liver Tissue. *The J. of Histotechnology* 13:185-187.

Cunningham ML, Foley J, Maronpot RR, and Matthews HB, 1991. Correlation of Hepatocellular Proliferation with Hepatocarcinogenicity Induced by the Mutagenic Noncarcinogen:Carcinogen pair - 2,6- and 2,4-diaminotoluene. *Tox. & Appl. Pharmacol.* 107:562-567.

Lucier GW, Trischer A, Goldsworthy T, Foley J, Clark G, Goldstein J, and Maronpot RR, 1991. Ovarian Hormones Enhance 2, 3, 7, 8-tetrachlorodibenzo-p-dioxin-mediated Increases in Cell Proliferation and Preneoplastic Foci in a Two-stage Model for Rat Hepatocarcinogenesis. *Cancer Res.* 51:1391-1397.

Dragan YP, Rizvi T, Xu YH, Hully JR, Bawa N, Campbell HA, Maronpot RR, and Pitot HC, 1991. An Initiation-Promotion Assay in Rat Liver as a Potential Complement to the 2-year Carcinogenesis Bioassay. *Fund. & Appl. Tox.* 16:525-547.

Dixon D, Horton J, Haseman JK, Talley F, Greenwell A, Nettesheim P, Hook GE, and Maronpot RR, 1991. Histomorphology and Ultrastructure of Spontaneous Pulmonary Neoplasms in Strain A Mice. *Exp. Lung Res.* 17:131-155.

Foley JF, Anderson MW, Stoner GD, Gaul BW, Hardisty JF, and Maronpot RR, 1991. Proliferative lesions of the Mouse Lung: Progression Studies in Strain A Mice. *Exp. Lung Res.* 17:157-168.

Belinsky SA, Devereux TR, White CM, Foley JF, Maronpot RR, and Anderson MW, 1991. Role of Clara Cells and Type II cells in the Development of Pulmonary Tumors in Rats and Mice Following Exposure to a Tobacco-specific Nitrosamine. *Exp. Lung Res.* 17:263-278.

Maronpot RR, Palmiter RD, Brinster RL, and Sandgren EP, 1991. Pulmonary Carcinogenesis in Transgenic Mice. *Exp. Lung Res.* 17:305-320.

You M, Wang Y, Lineen A, Stoner GD, You L, Maronpot RR, and Anderson MW, 1991. Activation of Protooncogenes in Mouse Lung Tumors. *Exp. Lung Res.* 17:389-400.

Maronpot RR, 1991. Correlation of Data from the Strain A Mouse Bioassay with Long-term Bioassays. *Exp. Lung Res.* 17:425-431.

Ghanayem BI, Maronpot RR, and Matthews HB, 1991. Effects of Sulphydryl Modulation on Ethyl Acrylate-induced Forestomach Toxicity. *Tox. Ltrs.* 55:215-221.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Blair PC, Thompson MB, Wilson RE, Esber HH, and Maronpot RR, 1991. Correlation of Changes in Serum Analytes and Hepatic Histopathology in Rats Exposed to Carbon Tetrachloride. *Tox. Ltrs.* 55:149-159.

Hedlund LW, Maronpot RR, Johnson GA, Cofer GP, Mille GM, and Wheeler CT, 1991. Magnetic Resonance Microscopy of Toxic Renal Injury Induced by Bromoethylamine in Rats. *Fund. & Appl. Tox.* 16:787-797.

Candrian U, You M, Goodrow T, Maronpot RR, Reynolds SH, and Anderson MW, 1991. Activation of Protooncogenes in Spontaneously Occurring non-Liver Tumors from C57BL/6 x C3H F1 Mice. *Cancer Res.* 51:1148-1153.

Greenwell A, Foley J.F, and Maronpot RR, 1991. An Enhancement Method for Immunohistochemical Staining of Proliferating Cell Nuclear Antigen in Archival Rodent Tissues. *Cancer Ltrs.* 59:251-256.

Dixon D, Marshall KLE, Greenwell A, Shimizu T, Nettesheim P, and Maronpot RR, 1991. Comparison of Automated and Manual Staining Techniques for the Binding of Wheat Germ Agglutinin (WGA) in Modified B5- and Formalin-fixed Pulmonary Tissue. *The J. of Histotechnology* 14:149-153.

Maronpot RR, Giles HD, Dykes DJ, and Irwin RD, 1991. Furan-induced Hepatic Cholangiocarcinomas in Fischer 344 Rats. *Tox. Path.* 19:561-570.

Brown HR, Monticello TM, Maronpot RR, Randall HW, Hotchkiss JR, and Morgan KT, 1991. Proliferative and Neoplastic Lesions in the Rodent Nasal Cavity. *Tox. Path.* 19:358-372.

Dixon D and Maronpot RR, 1991. Histomorphologic Features of Spontaneous and Chemicallyinduced Pulmonary Neoplasms in B6C3F1 Mice and Fischer 344 Rats. *Tox. Path.* 19:540-556.

Foley JF, Dietrich DR, Swenberg JA, and Maronpot RR, 1991. Detection and Evaluation of Proliferating Cell Nuclear Antigen (PCNA) in Rat Tissue by an Improved Immunohistochemical Procedure. *The J. of Histotechnology* 14:237-241.

Ghanayem BI, Matthews HB, and Maronpot RR, 1991. Sustainability of Forestomach Hyperplasia in Rats Treated with Ethyl Acrylate for 13 Weeks and Regression After Cessation of Dosing. *Tox. Path.* 19:273-279.

Whitehead Jr. RE, Sugawara O, Maronpot RR, Gladen BC, and Barrett JC, 1992. Detection of Multiple Tumor Suppressor Genes for Syrian Hamster Fibrosarcomas by Somatic Cell Hybridization. *Somatic Cell and Molecular Genetics* 18:131-142.

Belinsky SA, Devereux TR, Foley JF, Maronpot RR, and Anderson MW, 1992. Role of the Alveolar type-II Cell in the Development and Progression of Pulmonary Tumors Induced by 4-(methylnitrosamino)-1- (3-pyridyl)-1-butanone in the A/J Mouse. *Cancer Res.* 52:3164-3173.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Lindamood III C, Farnell DR, Giles HD, Prejean JD, Collins JJ, Takahashi K, and Maronpot RR, 1992. Subchronic Toxicity Studies of t-butyl Alcohol in Rats and Mice. *Fund. & Appl. Tox.* 19:91-100.

You M, Wang Y, Stoner G, You L, Maronpot R, Reynolds S, and Anderson M, 1992. Parental Bias of Ki-ras Oncogenes Detected in Lung Tumors from Mouse Hybrids. *Proc. Natl. Acad. Sci., USA* 89:5804-5808.

Dieter MP, Maronpot RR, Jameson CW, and Ward SM, 1992. The Effects of Iodinated Glycerol, Trichlorfon, and Acetaminophen on Tumor Progression in a Fischer Rat Leukemia Transplant Model. *Cancer Detection and Prevention* 16:173-183.

Lucier GW, Clark G, Tritscher A, Foley J, and Maronpot R, 1992. Mechanisms of Dioxin Tumor Promotion - Implications for Risk Assessment. *Chemosphere* 25:177-180.

Xu YH, Dragan YP, Maronpot RR, Goldsworthy TL, and Pitot HC, 1992. Criteria, Mechanisms, and Potency Evaluation for Tumor Promoters: Dioxin as a Model. *Chemosphere* 25:227-230.

Dragan YP, Xu YH, Goldsworthy TL, Campbell HA, Maronpot RR, and Pitot HC, 1992. Characterization of the Promotion of Altered Hepatic Foci by 2,3,7,8-tetrachlorodibenzo-p-dioxin in the Female Rat. *Carcinogenesis* 13:1389-1395.

Takahashi K, Maita K, Kuwahara M, Harada T, and Maronpot RR, 1992. Eosinophilic Globule Cells in Mouse MFH-like Sarcomas: Lectin Histochemistry. *Virchows Archiv B Cell Pathol.* 62:89-95.

Stanley LA, Devereux TR, Foley J, Lord PG, Maronpot RR, Orton TC, and Anderson MW, 1992. Proto-oncogene Activation in Liver Tumors of Hepatocarcinogenesis-resistant Strains of Mice. *Carcinogenesis* 13:2427-2433.

Anderson MW, Reynolds SH, You M, and Maronpot RR, 1992. Role of Proto-oncogene Activation in Carcinogenesis. *EHP* 98:13-24.

Cullen JM, Sandgren EP, Brinster RL, and Maronpot RR, 1993. Histologic Characterization of Hepatic Carcinogenesis in Transgenic Mice Expressing SV40 T-antigens. *Vet. Path.* 30:111-118.

Melnick RL, Huff J, Barrett JC, Maronpot RR, Lucier G, and Portier CJ, 1993. Cell Proliferation and Chemical Carcinogenesis: A Symposium Overview. *Molecular Carcinogenesis* 7:135-138.

Anderson MW and Maronpot RR, 1993. Editorial: Methylene Chloride-induced Tumorigenesis. *Carcinogenesis* 14:787-788.

Devereux TR, Foley JF, Maronpot RR, Kari F, and Anderson MW, 1993. Ras Proto-oncogene Activation in Liver and Lung Tumors from B6C3F1 Mice Exposed Chronically to Methylene Chloride. *Carcinogenesis* 14:795-802.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Hegi ME, Soderkvist P, Foley JF, Schoonhoven R, Swenberg JA, Kari F, Maronpot R, Anderson MW, and Wiseman RW, 1993. Characterization of p53 Mutations in Methylene Chloride-induced Lung Tumors from B6C3F1 Mice. *Carcinogenesis* 14:803-810.

Foley JF, Tuck PD, Ton TVT, Frost M, Kari F, Anderson M.W, and Maronpot RR, 1993. Inhalation Exposure to a Hepatocarcinogenic Concentration of Methylene Chloride Does Not Induce Sustained Replicative DNA Synthesis in Hepatocytes of Female B6C3F1 Mice. *Carcinogenesis* 14:811-818.

Kari FW, Foley JF, Seilkop SK, Maronpot RR, and Anderson MW, 1993. Effect of Varying Exposure Regimens on Methylene Chloride-induced Lung and Liver Tumors in Female B6C3F1 Mice. *Carcinogenesis* 14:819-826.

Chen B, Liu L, Castonguay A, Maronpot RR, Anderson MW, and You M, 1993. Dose-dependent ras Mutation Spectra in N-nitrosodiethylamine-induced Mouse Liver Tumors and 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone Induced Mouse Lung Tumors. *Carcinogenesis* 14:1603-1608.

Devereux TR, Belinsky SA, Maronpot RR, White CM, Hegi ME, Patel AC, Foley JF, Greenwell A, and Anderson MW, 1993. Comparison of Pulmonary 06-methylguanine DNA Adduct Levels and Kras Activation in Lung Tumors from Resistant and Susceptible Mouse Strains. *Molecular Carcinogenesis* 8:177-185.

Maronpot RR, Foley JF, Takahashi K, Goldsworthy T, Clark G, Tritscher A, Portier C, and Lucier G, 1993. Dose Response for TCDD Promotion of Hepatocarcinogenesis in Rats Initiated with DEN: Histologic, Biochemical, and Cell Proliferation Endpoints. *EHP* 101:634-642.

Johnson GA, Benveniste H, Black RD, Hedlund LW, Maronpot RR, and Smith BR, 1993. Histology by Magnetic Resonance Microscopy. *Magnetic Resonance Quarterly* 1993; 9(1):1-30.

Kanno J, Maronpot RR, Takahashi M, Kasuga T, and Hayashi Y, 1993. Regressive and Nonregressive Thyroid Lesions of the Rat Induced by Single Injection of N-bis(2-hydroxypropyl)nitrosamine and Iodine Deficient Diet. *Carcinogenesis* 14:2389-2396.

Melnick RL, Huff J, Barrett JC, Maronpot RR, Lucier G, and Portier CJ, 1993. Cell Proliferation and Chemical Carcinogenesis: Symposium Overview. *EHP* 101:3-5.

Goldsworthy TL, Butterworth BE, and Maronpot RR, 1993. Concepts, Labeling Procedures, and Design of Cell Proliferation Studies Relating to Carcinogenesis. *EHP* 101:59-65.

Foley J, Ton T, Maronpot R, Butterworth B, and Goldsworthy TL, 1993. Comparison of Proliferating Cell Nuclear Antigen to Tritiated Thymidine as a Marker of Proliferating Hepatocytes in Rats. *EHP* 101:199-205.

Greenwell A, Foley JF, and Maronpot RR, 1993. Detecting Proliferating Cell Nuclear Antigen in Archival Rodent Tissues. *EHP* 101:207-209.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Kanno J, Foley JF, Kari F, Anderson MW, and Maronpot RR, 1993. Effect of Methylene Chloride Inhalation on Replicative DNA Synthesis in the Lungs of Female B6C3F1 Mice. *EHP* 101:271-276.

Ghanayem BI, Sanchez IM, Maronpot RR, Elwell MR, and Matthews HB, 1993. Relationship Between the Time of Sustained Ethyl Acrylate Forestomach Hyperplasia and Carcinogenicity. *EHP* 101:277-280.

Takahashi K, Lindamood III C, and Maronpot RR, 1993. Retrospective Study of Possible α-2mglobulin Nephropathy and Associated Cell Proliferation in Male Fischer 344 Rats Dosed with t-butyl alcohol. *EHP* 101:281-286.

Herzog CR, Schut HAJ, Maronpot RR, and You M, 1993. Ras Mutations in 2-amino-3-methylimidazo[4,5-f]quinoline-induced Tumors from the CDF1 Mouse. *Molecular Carcinogenesis* 8:202-207.

Cunningham ML, Maronpot RR, Thompson M, and Bucher JR, 1994. Early Responses of the Liver of B6C3F1 Mice to the Hepatocarcinogen Oxazepam: *Tox. & Appl. Pharmacol.* 124:31-38.

Dixon D, Yoshitomi K, Boorman GA, and Maronpot RR, 1994. "Lipomatous" Lesions of Unknown Cellular Origin in the Liver of B6C3F1 Mice. *Vet.. Path.* 31:173-182.

Devereux TR, White CM, Sills RC, Bucher JR, Maronpot RR, and Anderson MW, 1994. Low Frequency of H-ras Mutations in Hepatocellular Adenomas and Carcinomas and in Hepatoblastomas from B6C3F1 Mice Exposed to Oxazepam in the Diet. *Carcinogenesis* 15:1083-1087.

Zhou X, Maronpot RR, Mills GI, Cofer GP, Hedlund LW and Johnson GA, 1994: Studies on Bromobenzene-induced Hepatotoxicity Using *in vivo* MR Microscopy with Surgically Implanted RF Coils. *Magnetic Resonance in Medicine* 31:619-627.

Stanley LA, Blackburn DR, Devereaux S, Foley J, Lord PG, Maronpot RR, Orton TC, and Anderson MW, 1994. Ras Mutations in Methylclofenapate-induced B6C3F1 and C57BL/10J Mouse Liver Tumours. *Carcinogenesis* 15:1125-1131.

Boorman GA, Maronpot RR, and Eustis SL, 1994. Rodent Carcinogenicity Bioassay: Past, Present, and Future. *Tox. Path.* 22:105-111.

Preston GA, Lang JE, Maronpot RR, and Barrett JC, 1994. Regulation of Apoptosis by Low Serum in Cells of Different Stages of Neoplastic Progression: Enhanced Susceptibility After Loss of a Senescence Gene and Decreased Susceptibility After Loss of a Tumor Suppressor Gene. *Cancer Res.* 54:4214-4223.

Anna CH, Maronpot RR, Pereira MA, Foley JF, Malarkey DE, and Anderson MW, 1994. Ras Protooncogene Activation in Dichloroacetic acid-, Trichloroethylene-, and Tetrachloroethylene-induced Liver Tumors in B6C3F1 Mice. *Carcinogenesis* 15:2255-2261.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Davis BJ, Maronpot RR, and Heindel JJ, 1994. Di-(2-ethylhexyl) Phthalate Suppresses Estradiol and Ovulation in Cycling Rats. *Tox. & Appl. Pharmacol.* 128:216-223.

Goodrow TL, Nichols WW, Storer RD, Anderson MW, and Maronpot RR, 1994. Activation of H-ras is Prevalent in 1,3-Butadiene-induced and Spontaneously Occurring Murine Harderian Gland Tumors. *Carcinogenesis* 15:2665-2667.

Hegi ME, Devereux TR, Dietrich WF, Cochran CJ, Lander ES, Foley JF, Maronpot RR, Anderson MW, and Wiseman RW, 1994. Allelotype Analysis of Mouse Lung Carcinomas Reveals Frequent Allelic Losses on Chromosome 4 and an Association Between Allelic Imbalances on Chromosome 6 and K-ras activation. *Cancer Res.* 54:6257-6264.

Devereux TR, Wiseman RW, Kaplan N, Garren S, Foley JF, White CM, Anna C, Watson MA, Patel A, Jarchow S, Maronpot RR, and Anderson MW, 1994. Assignment of a Locus for Mouse Lung Tumor Susceptibility to Proximal Chromosome 19. *Mammalian Genome* 5:749-755.

Davis LM, Caspary WJ, Sakallah SA, Maronpot R, Wiseman R, Barrett JC, Elliott R, and Hozier JC, 1994. Loss of Heterozygosity in Spontaneous and Chemically induced Tumors of the B6C3F1 Mouse. *Carcinogenesis* 15:1637-1645.

Sewall CH, Flagler N, Vanden Heuvel JP, Clark GC, Tritscher AM, Maronpot RR, and Lucier GW, 1995. Alterations in Thyroid Function in Female Sprague-Dawley Rats Following Chronic Treatment with 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Tox. & Appl. Pharmacol.* 132:237-244.

Ton TT, Elwell MR, Morris RW, and Maronpot RR, 1995. Development and Persistence of Placental Glutathione-S-Transferase-positive Foci in Livers of Male F344 Rats Exposed to o-Nitrotoluene. *Cancer Ltrs.* 95:167-173.

Watson MA, Devereux TR, Malarkey DE, Anderson MW, and Maronpot RR, 1995. H-ras Oncogene Mutation Spectra in B6C3F1 and C57BL/6 Mouse Liver Tumors Provide Evidence for TCDD Promotion of Spontaneous and Vinyl Carbamate-initiated Liver Cells. *Carcinogenesis* 16:1705-1710.

Maronpot RR, Fox T, Malarkey DE, and Goldsworthy TL, 1995. Mutations in the *ras* Protooncogene: Clues to Etiology and Molecular Pathogenesis of Mouse Liver Tumors. *Toxicology* 101:125-156.

Massey TE, Devereux TR, Maronpot RR, Foley JF, and Anderson MW, 1995. High Frequency of *Kras* Mutations in Spontaneous and Vinyl Carbamate-induced Lung Tumors of Relatively Resistant B6CF1 (C57BL/6J x BALB/cJ) Mice. *Carcinogenesis* 16:1065-1069.

Takahashi K, Vivano CJ, Elwell MR, Bakewell WE, Kuwahara M, Nakashima N, Blackwell BN, and Maronpot RR, 1995. Bile Duct-specific Lectins, *Dolichos biflorus* agglutinin and peanut agglutinin, as Probes in Mouse Hepatocarcinogenesis. *Laboratory Investigation* 73:424-432.

**ROBERT R. MARONPOT, DVM, MS, MPH**

**PUBLICATIONS AND PAPERS: – Continued**

Maronpot RR, Devereux TR, Hegi M, Foley JF, Kanno J, Wiseman R, and Anderson MW, 1995. Hepatic and Pulmonary Carcinogenicity of Methylene Chloride in Mice: A Search for Mechanisms. *Toxicology* 102:73-81.

Malarkey DE, Devereux TR, Dinse GE, Mann PC, and Maronpot RR, 1995. Hepatocarcinogenicity of Chlordane in B6C3F1 and B6D2F1 Male Mice: Evidence for Regression in B6C3F1 Mice and Carcinogenesis Independent of *ras* Proto-oncogene Activation. *Carcinogenesis* 16:2617-2625.

Liu J, Phillips KW, Foley JF, and Maronpot RR, 1995. Optimizing *in situ* Hybridization of Lactoferrin mRNA in Mouse Uterine Tissue Using Digoxigenin-labeled RNA Probes. *Cell Vision* 2:430-434.

Zhou X, Maronpot RR, Hedlund LW, Cofer GP, and Johnson GA, 1995. Detection of Bromobenzene-induced Hepatocellular Necrosis Using Magnetic Resonance Microscopy. *Magnetic Resonance in Medicine* 34:853-857.

Tritscher AM, Clark GC, Sewall CS, Sills RC, Maronpot R, and Lucier GW, 1995. Persistence of TCDD-induced Hepatic Cell Proliferation and Growth of Enzyme Altered Foci After Chronic Exposure Followed by Cessation of Treatment in DEN Initiated Female Rats. *Carcinogenesis* 16:2807-2811.

Malarkey DE and Maronpot RR, 1996. Polymerase Chain Reaction and *in situ* Hybridization: Applications in Toxicological Pathology. *Tox. Path.* 24:13-23.

Goldsworthy TL, Fransson-Steen R, and Maronpot RR, 1996. Importance of and Approaches to Quantification of Hepatocyte Apoptosis. *Tox. Path.* 24:24-35.

Delnomdedieu M, Hedlund LW, Johnson GA, and Maronpot RR, 1996. Magnetic Resonance Microscopy -- A New Tool for the Toxicologic Pathologist. *Tox. Path.* 24:36-44.

Portier CJ, Sherman CD, Kohn M, Edler L, Kopp-Schneider A, Maronpot RR and Lucier G, 1996. Modeling the Number and Size of Hepatic Focal Lesions Following Exposure to 2,3,7,8-TCDD. *Toxicol. Appl. Pharmacol.* 138:20-30.

Maronpot RR. 1996. Editorial. Laboratory Animal Pathology - Emphasis on an Area of Relevance to the Toxicologic Pathologist. *Tox. Path.* 24: 506.

Mahler JF, Stokes W, Mann PC, Takaoka M and Maronpot RR. 1996. Spontaneous Lesions in Aging FVB/N Mice. *Tox. Path.* 24: 710-716.

Maronpot RR. 1996. A Symposium Summary and Perspective on Comparative Molecular Biology of Cancer. *Tox. Path.* 24: 801-804.

Maronpot RR and Boorman GA. 1996. The Contribution of the Mouse in Hazard Identification Studies. *Tox. Path.* 24: 726-733.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Carthew P, Maronpot RR, Foley J, Edwards, RE and Dorman,BM. 1996. A Method for Determining Whether the Number of Hepatocytes in Rat Liver is Increased after Treatment with the Peroxisome Proliferator Gemfibrozil. *J. Appl. Toxicol.* 17: 47-51.

Donnelly, PJ, Devereux, TR, Foley, JF, Maronpot, RR, Anderson, MW and Massey, TE. 1996. Activation of K-ras in Aflatoxin B1-Induced Lung Tumors from AC3F1 (A/J x C3H/HeJ) Mice. *Carcinogenesis* 17: 1735-1740.

Albert, RE, French, JF, Maronpot, R, Spalding, J and Tennant, R. 1996. Mechanisms of Skin Tumorigenesis by contact Sensitizers: The Effect of the corticosteroid Fluocinolone Acetonide on Inflammation and Tumor Induction by 2,4 Dinitro-1-fluorobenzene in the Skin of the TG.AC (v-Haras) Mouse. *Environ. Hlth. Persp.* 104: 1062-1068.

Kong, L-Y, McMillian, MK, Maronpot, R, Hong, J-S. 1996. Protein tyrosine kinase inhibitors suppress the production of nitric oxide in mixed glia, microglia-enriched or astrocyte-enriched cultures. *Brain Res.* 729: 102-109.

Davis, BJ, Almekinder, JL, Flagler, N, Travlos, G, Wilson, R, and Maronpot, RR. 1997. Ovarian Luteal Cell Toxicity of Ethylene Glycol Monomethyl Ether and Methoxy Acetic Acid in Vivo and in Vitro. *Toxicol. Appl. Pharmacol.* 142: 328-337.

Fox, TR, McMillen, PJ, Maronpot, RR and Goldsworthy, TL. 1997. Genomic Instability, as Measured by Microsatellite Alterations, Is Not Associated with Liver Tumor Development in the Genetically Susceptible B6C3F1 Mouse. *Toxocol. Appl. Pharmacol.* 143: 167-172.

Witschi, H, Espiritu, I, Peake, JL, Wu, K, Maronpot, RR and Pinkerton, KE. 1997. The Carcinogenicity of Environmental Tobacco Smoke. *Carcinogenesis* 18: 575-586.

Fransson-Steen, R, Goldsworthy, TL, Kedderis, GL and Maronpot, RR. 1997. Furan-induced liver cell proliferation and apoptosis in female B6C3F1 mice. *Toxicology* 118: 195-204.

Johansson, E, Reynolds, S, Anderson, M and Maronpot, R. 1997. Frequency of Ha-ras-1 Gene Mutations Inversely Correlated with Furan Dose in Mouse Liver Tumors. *Mol. Carcinogenesis* 18: 199-205.

Romach, EH, Goldsworthy, TL, Maronpot, RR and Fox, TR. 1997. Altered gene expression in spontaneous hepatocellular carcinomas from male B6C3F1 mice. *Mol. Carcinogenesis* 19: 31-38.

Carthew P, Maronpot RR, Foley JF, Edwards RE, and Nolan BM, 1997. Method for determining whether the number of hepatocytes in rat liver is increased after treatment with the peroxisome proliferator gemfibrozil. *J Appl Toxicol.* 17: 47-51.

Maronpot RR, 1997. Comments on the medium-term rat liver focus bioassay. *Toxicol Pathol.* 25: 461.

Witschi H, Espiritu I, Peake JL, Wu K, Maronpot RR, and Pinkerton KE, 1997. The carcinogenicity of environmental tobacco smoke. *Carcinogenesis*. 18: 575-586.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Kim, T-W, Porter, KL, Foley, JF, Maronpot, RR and Smart, RC. 1997. Evidence that mirex promotes a unique population of epidermal cells that cannot be distinguished by their mutant Haras genotype. *Mol. Carcinogenesis* 20: 115-124.

Mitsumori, K, Wakana, S, Yamamoto, S, Kodama, Y, Yasuhara, K, kNomura, T, Hayashi, Y and Maronpot, RR. 1997. Susceptibility of Transgenic Mice Carrying Human Prototype c-Ha-ras Gene in a Short-Term Carcinogenicity Study of Vinyl Carbamate and ras Gene Analyses of the Induced Tumors. *Molecular Carcinogenesis* 20: 298-307.

Witschi, H, Espiritu, I, Maronpot, RR, Pinkerton, KE and Jones, AD. 1997. The Carcinogenic Potential of the Gas Phase of Environmental Tobacco Smoke. *Carcinogenesis* 18: 2035-2042.

Ton, TT, Foley, JF, Flagler, ND, Gaul, BW and Maronpot, RR. 1997. Feasibility of Administering 5-Bromo-2'-Deoxyuridine (BRDU) in Drinking Water for Labeling S-Phase Hepatocytes in Rats and Mice. *Toxicol. Methods* 7: 123-136.

Nyska A, Maronpot RR, Eldridge SR, Haseman JK and Hailey JR. 1997. Alteration in Cell Kinetics in Control B6C3F1 Mice Infected with Helicobacter hepaticus. *Toxicol. Pathol.* 25: 591-596.

Delnomdedieu M, Hedlund LW, Maronpot RR and Johnson GA. 1998. Magnetic Resonance Microscopy and Histopathology: Comparative approach of bromobenzene-Induced Hepatotoxicity in the Rat. *Hepatology* 27: 526-532.

Nyska A, Leininger JR, Maronpot RR, Haseman JK and Hailey JR. 1998. Effect of Individual Versus Group Caging on the Incidence of Pituitary and Leydig Cell Tumors in F344 Rats: Proposed Mechanism. *Med. Hypotheses* 50: 525-529.

Enomoto A, Sandgren EP and Maronpot, RR. 1998. Interactive Effects of c-myc and Transforming Growth Factor  $\alpha$  Transgenes on Liver Tumor Development in Simian Virus 40 T Antigen Transgenic Mice. *Vet. Pathol.* 35: 283-291.

Dragan Y, Klaunig J, Maronpot R, and Goldsworthy T, 1998. Mechanisms of susceptibility to mouse liver carcinogenesis. *Toxicol Sci.* 41: 3-7.

Nyska A, Leininger JR, Maronpot RR, Haseman JK, and Hailey JR, 1998. Effect of individual versus group caging on the incidence of pituitary and Leydig cell tumors in F344 rats: proposed mechanism. *Med Hypotheses*. 50: 525-529.

Maronpot RR. 1998. The Potential of Genetically Altered Mice as Animal Models for Carcinogen Identification. *Toxicol. Pathol.* 26: 579-581.

Enomoto A, Sandgren EP and Maronpot RR. 1998. Altered Differentiation of Hepatocytes in a Transgenic Mouse Model of Hepatocarcinogenesis. *Toxicol. Pathol.* 26: 570-578.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Hailey JR, Haseman JK, Bucher JR, Radovsky AE, Malarkey DE, Miller RT, Nyska A and Maronpot RR. 1998. Impact of Helicobacter hepaticus Infection in B6C3F1 Mice from Twelve National Toxicology Program Two-Year Carcinogenesis Studies. *Toxicol. Pathol.* 26: 602-611.

Nyska A, Maronpot RR, Long PH, Roycroft JH, Hailey JR, Travlos GS and Ghanayem BI. 1999. Disseminated Thrombosis and Bone Infarction in Female Rats Following Inhalation Exposure to 2-Butoxyethanol. *Toxicol. Pathol.* 27: 21-28.

Chhabra RS, Maronpot, RR, Bucher, JR, Haseman, JK, Toft, JD and Heitmancik, MR. 1999. Toxicology and Carcinogenesis Studies of Pentachlorophenol in Rats. *Toxicol. Sci.* 48: 14-20.

Johnson J, Murray PK and Maronpot RR. 1999. Improved Method for Ultrastructural Preservation of *Saccharomyces cerevisiae* JHY-31-11D. *Applied Immunohistochem and Molecular Morphology* 7: 81-86.

Goldsworthy SM, Stockton PS, Trempus CS, Foley JF and Maronpot RR. 1999. Effects of Fixation on RNA Extraction and Amplification from Laser Capture Microdissected Tissue. *Mol. Carc.* 25:86-91.

Nyska A, Haseman JK, Hailey JR, Smetana S and Maronpot RR. 1999. The Association Between Severe Nephropathy and Pheochromocytoma in the Male F344 Rat - The National Toxicology Program Experience. *Toxicol. Pathol.* 27: 456-462.

Levin S, Bucci TJ, Cohen SM, Fix AS, Hardisty JF, LeGrand EK, Maronpot RR and Trump BF. 1999. The Nomenclature of Cell Death: Recommendations of an ad hoc Committee of the Society of Toxicologic Pathologists. *Toxicol. Pathol.* 27: 484-490.

Tam AS, Foley JF, Devereux TR, Maronpot RR and Massey TE. 1999. High Frequency and Heterogeneous Distribution of p53 Mutations in Aflatoxin B1-induced Mouse Lung Tumors. *Cancer Res.* 59: 3634-3640.

Nyska A, Maronpot RR and Ghanayem BI. 1999. Ocular thrombosis and retinal degeneration induced in female F344 rats by 2-butoxyethanol. *Human & Experimental Toxicology* 18: 577-582.

Witschi H, Espirtu I, Pinkerton KE, Murphy K and Maronpot RR. 1999. Ozone Carcinogenesis Revisited. *Toxicol. Sci.* 52: 162-167.

Ma J, Qu W, Scarborough PE, Tomer KB, Moomaw CR, Maronpot, R, Davis LS, Breyer MD and Zeldin DC. 1999. Molecular cloning, enzymatic characterization, developmental expression, and cellular localization of a mouse cytochrome P450 highly expressed in kidney. *J. Biol. Chem.* 274: 17777-17788.

Long PH, Maronpot RR, Ghanayem BI, Roycroft JH and Myska A. 2000. Dental Pulp Infarction in Female Rats Following Inhalation Exposure to 2-Butoxyethanol. *Toxicol. Pathol.* 28: 246-252.

Maronpot RR. 2000. The use of genetically modified animals in carcinogenicity bioassays. *Toxicol. Pathol.* 28: 450-453.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Maronpot RR, Mitsumori K, Mann P, Takaoka M, Yamamoto S, Usui T, Okamiya H, Nishikawa S and Nomura T. 2000. Interlaboratory comparison of the CB6F1-Tg rasH2 rapid carcinogenicity testing model. *Toxicology* 146: 149-159.

Chen XJ, Hedlund LW, Moller HE, Chawla MS, Maronpot RR and Johnson GA. 2000. Detection of emphysema in rat lungs by using magnetic resonance measurements of <sup>3</sup>He diffusion. *PNAS* 97: 11478-11481.

Lomnitski L, Foley JF, Grossman S, Shaul VB, Maronpot RR, Moomaw CR, Carbonatto M and Nyska A. 2000. Effects of apocynin and natural antioxidant from spinach on inducible nitric oxide synthase and cyclooxygenase-2 induction in lipoopolysaccharide-induced hepatic injury in rat. *Pharmacology & Toxicology* 87: 18-25.

Lomnitski L, Carbonatto M, Ben-Shaul V, Peano S, Conz A, Corradin L, Maronpot RR, Grossman S, and Nyska A, 2000. The prophylactic effects of natural water-soluble antioxidant from spinach and apocynin in a rabbit model of lipopolysaccharide-induced endotoxemia. *Toxicol Pathol.* 28: 588-600.

Lomnitski L, Nyska A, Ben-Shaul V, Maronpot RR, Haseman JK, Harris TL, Bergman M, and Grossman S, 2000. Effects of antioxidants apocynin and the natural water-soluble antioxidant from spinach on cellular damage induced by lipopolysaccharide in the rat. *Toxicol Pathol.* 28: 580-587.

Maronpot RR, Mitsumori K, Mann P, Takaoka M, Yamamoto S, Usui T, Okamiya H, Nishikawa S, and Nomura T, 2000. Interlaboratory comparison of the CB6F1-Tg rasH2 rapid carcinogenicity testing model. *Toxicology*. 146: 149-159.

Sabo T, Lomnitski L, Nyska A, Beni S, Maronpot RR, Shohami E, Roses AD, and Michaelson DM, 2000. Susceptibility of transgenic mice expressing human apolipoprotein E to closed head injury: the allele E3 is neuroprotective whereas E4 increases fatalities. *Neuroscience*. 101: 879-884.

Tsao CC, Foley J, Coulter SJ, Maronpot R, Zeldin DC, and Goldstein JA, 2000. CYP2C40, a unique arachidonic acid 16-hydroxylase, is the major CYP2C in murine intestinal tract. *Mol Pharmacol.* 58: 279-287.

Suwa, T., Nyska, A., Peckham, JC, Hailey, JR, Mahler, JF, Haseman, JK and Maronpot, RR. 2001. A retrospective analysis of background lesions and tissue accountability for male accessory sex organs in Fischer-344 rats. *Toxicol. Pathol.* 29: 467-478.

Suwa, T., Nyska, A, Haseman, JK, Mahler, JF and Maronpot, RR. 2001. Spontaneous lesions in control B6C3F1 mice and recommended section of male accessory sex organs. *Toxicol. Pathol.* 30:228-234.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Nyska A, Lomnitski L, Maronpot R, Moomaw C, Brodsky B, Sintov A, and Wormser U (2001). Effects of iodine on inducible nitric oxide synthase and cyclooxygenase- 2 expression in sulfur mustard-induced skin. *Arch Toxicol* 74: 768-74.

Qu W, Bradbury JA, Tsao CC, Maronpot R, Harry GJ, Parker CE, Davis LS, Breyer MD, Waalkes MP, Falck JR, Chen J, Rosenberg RL, and Zeldin DC (2001). Cytochrome P450 CYP2J9, a new mouse arachidonic acid omega-1 hydroxylase predominately expressed in brain. *J Biol Chem* 27: 27.

Johnson GA, Cofer GP, Hedlund LW, Maronpot RR and Suddarth SA. 2001. Registered 1H and 3He Magnetic Resonance Microscopy of the Lung. *Magnetic Resonance in Med*. 45: 365-370.

Hayashi S, Hong HH, Toyoda K, Ton TV, Devereux TR, Maronpot RR, Huff J, and Sills RC (2001). High frequency of ras mutations in forestomach and lung tumors of B6C3F1 mice exposed to 1-amino-2,4-dibromoanthraquinone for 2 years. *Toxicol Pathol* 29: 422-9.

Torres-Munoz J, Stockton P, Tacoronte N, Roberts B, Maronpot RR, and Petito CK (2001). Detection of HIV-1 gene sequences in hippocampal neurons isolated from postmortem AIDS brains by laser capture microdissection. *J Neuropathol Exp Neurol* 60: 885-92.

Tsao C, Coulter SJ, Chien A, Luo G, Clayton N, Maronpot R, Goldstein JA and Zeldin DC. 2001. Identification and localization of five CYP2Cs in murine extrahepatic tissues and their metabolism of arachidonic acid to regio- and stereoselective products. *J Pharmacol. Exp Therap.* 299: 39-47.

Gottschling BC, Maronpot RR, Hailey JR, Peddada S, Moomaw CR, Klaunig JE and Nyska A. 2001. The role of oxidative stress in indium phosphide-induced lung carcinogenesis in rats. *Toxicol Sci* 64: 28-40.

Suwa T, Nyska A, Haseman JK, Mahler JF and Maronpot RR. 2002. Spontaneous lesions in control B6C3F1 mice and recommended sectioning of male accessory sex organs. *Toxicol Pathol* 30: 228-234.

Ozaki K, Haseman JK, Hailey JR, Maronpot RR and Nyska A. 2002. Association of adrenal pheochromocytoma and lung pathology in inhalation studies with particulate compounds in the male F344 rat – The National Toxicology Program experience. *Toxicol Pathol* 30: 263-270.

Nyska A, Dayan A and Maronpot RR. 2002. New tools in therapeutic research – Prostate cancer and models. *Toxicol Pathol* 30: 283-287.

Okoji RS, Y RC, Maronpot RR and Froines JR. 2002. Sodium arsenite administration via drinking water increases genome-wide and Ha-ras DNA hypomethylation in methyl-deficient C57BL/6J mice. *Carcinogenesis* 23: 777-785.

Johnson GA, Cofer GP, Fubara B, Gewalt SL, Hedlund LW, and Maronpot RR (2002). Magnetic resonance histology for morphologic phenotyping. *J Magn Reson Imaging* 16: 423-9.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Takahashi M, Dinse GE, Foley JF, Hardisty JF, and Maronpot RR (2002). Comparative prevalence, multiplicity, and progression of spontaneous and vinyl carbamate-induced liver lesions in five strains of male mice. *Toxicol Pathol* 30: 599-605.

Ma J, Bradbury JA, King L, Maronpot R, Davis LS, Breyer MD and Zeldin DC. 2002. Molecular cloning and characterization of mouse CYP2J6, an unstable cytochrome P450 isoform. *Biochem Pharmacol* 64:1447-1460.

Gallardo-Williams MT, Maronpot RR, Wine RN, Brunssen SH and Chapin RE. 2003. Inhibition of the enzymatic activity of prostate-specific antigen by boric acid and 3-nitrophenyl boronic acid. *The Prostate* 54:44-49.

Tam AS, Devereux TR, Patel AC, Foley JF, Maronpot RR and Massey TR. 2003. Perturbations of the Ink4a/Arf gene locus in aflatoxin B1-induced mouse lung tumors. *Carcinogenesis* 24: 121-132.

Ress NB, Hailey JR, Maronpot RR, Bucher JR, Travlos GS, Haseman JK, Orzech DP, Johnson JD and Hejtmancik MR. 2003. Toxicology and carcinogenesis studies of microencapsulated citral in rats and mice. *Toxicol Sci* 71: 198-206.

Nyska A, Suttie A, Bakshi S, Lomnitski L, Grossman S, Bergman M, Ben-Shaul V, Crocket P, Haseman JK, Moser G, Goldsworthy TL, and Maronpot RR. 2003. Slowing tumorigenic progression in TRAMP mice and prostatic carcinoma cell lines using natural anti-oxidant from spinach, NAO--a comparative study of three anti-oxidants. *Toxicol Pathol* 31: 39-51.

Gallardo-Williams MT, Maronpot RR, Turner CH, Johnson CS, Harris MW, Jayo MJ, Chapin RE. (2003) Effects of boric acid supplementation on bone histomorphometry, metabolism, and biomechanical properties in aged female F-344 rats. *Biol. Trace Element Res.* 93: 155-169.

Picut CA, Aoyama H, Holder JW, Gold LS, Maronpot RR and Dixon D. (2003). Bromoethane, chloroethane and ethylene oxide induced uterine neoplasms in B6C3F1 mice from 2-year inhalation bioassays: pathology and incidence data revisited. *Exp Toxic Pathol* 55: 1-9.

Gallardo-Williams, M. T., Maronpot, R. R., Wine, R. N., Brunssen, S. H., and Chapin, R. E. (2003). Inhibition of the enzymatic activity of prostate-specific antigen by boric acid and 3-nitrophenyl boronic acid. *Prostate* 54: 44-9.

Calderon-Garciduenas, L., Maronpot, R. R., Torres-Jardon, R., Henriquez-Roldan, C., Schoonhoven, R., Acuna-Ayala, H., Villarreal-Calderon, A., Nakamura, J., Fernando, R., Reed, W., Azzarelli, B., and Swenberg, J. A. (2003). DNA damage in nasal and brain tissues of canines exposed to air pollutants is associated with evidence of chronic brain inflammation and neurodegeneration. *Toxicol Pathol* 31, 524-38.

Gallardo-Williams, M. T., Maronpot, R. R., Turner, C. H., Johnson, C. S., Harris, M. W., Jayo, M. J., and Chapin, R. E. (2003). Effects of boric acid supplementation on bone histomorphometry, metabolism, and biomechanical properties in aged female F-344 rats. *Biol Trace Elem Res* 93, 155-70.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Crissman, J. W., Goodman, D. G., Hildebrandt, P. K., Maronpot, R. R., Prater, D. A., Riley, J. H., Seaman, W. J., and Thake, D. C. (2004). Best practices guideline: toxicologic histopathology. *Toxicol Pathol* 32, 126-31.

Gallardo-Williams, M. T., Chapin, R. E., King, P. E., Moser, G. J., Goldsworthy, T. L., Morrison, J. P., and Maronpot, R. R. (2004). Boron Supplementation Inhibits the Growth and Local Expression of IGF-1 in Human Prostate Adenocarcinoma (LNCaP) Tumors in Nude Mice. *Toxicol Pathol* 32, 73-8.

Tani, Y., Maronpot, R. R., Foley, J. F., Haseman, J. K., Walker, N. J., and Nyska, A. (2004). Follicular Epithelial Cell Hypertrophy Induced by Chronic Oral Administration of 2,3,7,8-Tetrachlorodibenzo-p-Dioxin in Female Harlan Sprague-Dawley Rats. *Toxicol Pathol* 32, 41-9.

Hamadeh, H. K., Jayadev, S., Gaillard, E. T., Huang, Q., Stoll, R., Blanchard, K., Chou, J., Tucker, C. J., Collins, J., Maronpot, R., Bushel, P., and Afshari, C. A. (2004). Integration of clinical and gene expression endpoints to explore furan-mediated hepatotoxicity. *Mutat Res* 549, 169-83.

Herzog, C. R., Bodon, N., Pittman, B., Maronpot, R. R., Massey, T. E., Anderson, M. W., You, M., and Devereux, T. R. (2004). Carcinogen-specific targeting of chromosome 12 for loss of heterozygosity in mouse lung adenocarcinomas: implications for chromosome instability and tumor progression. *Oncogene* 23, 3033-9.

Maronpot, R. R., Flake, G., and Huff, J. (2004). Relevance of animal carcinogenesis findings to human cancer predictions and prevention. *Toxicol Pathol* 32 Suppl 1, 40-8.

Nikitin, A. Y., Alcaraz, A., Anver, M. R., Bronson, R. T., Cardiff, R. D., Dixon, D., Fraire, A. E., Gabrielson, E. W., Gunning, W. T., Haines, D. C., Kaufman, M. H., Linnoila, R. I., Maronpot, R.

R., Rabson, A. S., Reddick, R. L., Rehm, S., Rozengurt, N., Schuller, H. M., Shmidt, E. N., Travis, W. D., Ward, J. M., and Jacks, T. (2004). Classification of proliferative pulmonary lesions of the mouse: recommendations of the mouse models of human cancers consortium. *Cancer Res* 64, 2307-16.

Nyska, A., Haseman, J. K., Kohen, R., and Maronpot, R. R. (2004). Association of liver hemangiosarcoma and secondary iron overload in B6C3F1 mice—the National Toxicology Program experience. *Toxicol Pathol* 32, 222-8.

Allen, D. G., Pearse, G., Haseman, J. K., and Maronpot, R. R. (2004). Prediction of rodent carcinogenesis: an evaluation of prechronic liver lesions as forecasters of liver tumors in NTP carcinogenicity studies. *Toxicol Pathol* 32, 393-401.

Sills, R., Morgan, D., Herr, D., Little, P., George, N., Ton, T., Love, N., Maronpot, R., and Johnson, G. (2004). Contribution of Magnetic Resonance Microscopy in the 12-Week Neurotoxicity Evaluation of Carbonyl Sulfide in Fischer 344 Rats. *Toxicol Pathol* 32, 501-510.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Stumpo, D. J., Byrd, N. A., Phillips, R. S., Ghosh, S., Maronpot, R. R., Castranio, T., Meyers, E. N., Mishina, Y., and Blackshear, P. J. (2004). Chorioallantoic fusion defects and embryonic lethality resulting from disruption of Zfp36L1, a gene encoding a CCCH tandem zinc finger protein of the Tristetraprolin family. *Mol Cell Biol* 24, 6445-55.

Calderon-Garciduenas, L., Reed, W., Maronpot, R. R., Henriquez-Roldan, C., Delgado-Chavez, R., Calderon-Garciduenas, A., Dragustinovis, I., Franco-Lira, M., Aragon-Flores, M., Solt, A. C., Altenburg, M., Torres-Jardon, R., and Swenberg, J. A. (2004). Brain inflammation and Alzheimer's-like pathology in individuals exposed to severe air pollution. *Toxicol Pathol* 32, 650-8.

Maronpot, R. R., Sills, R. C., and Johnson, G. A. (2004). Applications of magnetic resonance microscopy. *Toxicol Pathol* 32 Suppl 2, 42-8.

Morgan, D. L., Little, P. B., Herr, D. W., Moser, V. C., Collins, B., Herbert, R., Johnson, G. A., Maronpot, R. R., Harry, G. J., and Sills, R. C. (2004). Neurotoxicity of carbonyl sulfide in F344 rats following inhalation exposure for up to 12 weeks. *Toxicol Appl Pharmacol* 200, 131-45.

Moyer, C., Allen, D., Basabe, A., Maronpot, R. R., and Nyska, A. (2004). Analysis of vascular endothelial growth factor (VEGF) and a receptor subtype (KDR/flk-1) in the liver of rats exposed to riddelliine: a potential role in the development of hemangiosarcoma. *Exp Toxicol Pathol* 55, 455-65.

Yamamoto, Y., Moore, R., Goldsworthy, T. L., Negishi, M., and Maronpot, R. R. (2004). The orphan nuclear receptor constitutive active/androstane receptor is essential for liver tumor promotion by phenobarbital in mice. *Cancer Res* 64, 7197-200.

Zhou, T., Jia, X., Chapin, R. E., Maronpot, R. R., Harris, M. W., Liu, J., Waalkes, M. P., and Eddy, E. M. (2004). Cadmium at a non-toxic dose alters gene expression in mouse testes. *Toxicol Lett* 154, 191-200.

Malarkey, D.E., Johnson, K., Ryan, L., Boorman, G. and Maronpot, R. R. (2005). New Insights into Functional Aspects of Liver Morphology. *Toxicol. Pathol.* 33: 27-34.

Malarkey, D.E., Parker, J.S., Turman, C.A., Scott, A.M., Paules, R.S., Collins, J. and Maronpot, R. R. (2005). Microarray Data Analysis of Mouse Neoplasia. *Toxicol. Pathol.* 33: 127-135.

Suttie, A. W., Dinse, G. E., Nyska, A., Moser, G. J., Goldsworthy, T. L., and Maronpot, R. R. (2005). An investigation of the effects of late-onset dietary restriction on prostate cancer development in the TRAMP mouse. *Toxicol Pathol* 33, 386-97.

Tani, Y., Suttie, A., Flake, G. P., Nyska, A., and Maronpot, R. R. (2005). Epithelial-stromal tumor of the seminal vesicles in the transgenic adenocarcinoma mouse prostate model. *Vet Pathol* 42, 306-14.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Witschi, H., Espiritu, I., and Maronpot, R. R. (2005). Lung tumors in 2 year old strain A/J mice exposed for 6 months to tobacco smoke. *Cancer Lett.* Tam, N. N., Nyska, A., Maronpot, R. R., Kissling, G., Lomnitski, L., Sutte, A., Bakshi, S., Bergman, M., Grossman, S., and Ho, S. M. (2006). Differential attenuation of oxidative/nitrosative injuries in early prostatic neoplastic lesions in TRAMP mice by dietary antioxidants. *Prostate* 66, 57-69.

Yamamoto, Y., Moore, R., Hess, H. A., Guo, G. L., Gonzalez, F. J., Korach, K. S., Maronpot, R. R., and Negishi, M. (2006). Estrogen receptor alpha mediates 17alpha -ethynodiol-causing hepatotoxicity. *J Biol Chem* 281:16625-31.

Johnson, K., Ryan, L., Davis, J., Elmore, A., Guenther, B., Marcus, J., and Maronpot, R. R. (2006). Application of magnetic resonance imaging in developmental neurotoxicity testing: a pilot study. *Neurotoxicology* 27, 846-51.

Cardiff, R. D., Anver, M. R., Boivin, G. P., Bosenberg, M. W., Maronpot, R. R., Molinolo, A. A., Nikitin, A.Y., Rehg, J. E., Thomas, G. V., Russell, R. G., and Ward, J. M. (2006). Precancer in mice: animal models used to understand, prevent, and treat human precancers. *Toxicol Pathol* 34, 699-707.

Maronpot, R. R. (2006). A monograph on histomorphologic evaluation of lymphoid organs. *Toxicol Pathol* 34, 407-8.

Maronpot, R. R. (2006). Enhanced histopathology of lymphoid tissues. *Toxicol Pathol* 34, 631-3.

Phillips, J. M., Yamamoto, Y., Negishi, M., Maronpot, R. R. and Goodman, J. I. (2007) Orphan nuclear receptor constitutive active/androstane receptor-mediated alterations in DNA methylation during phenobarbital promotion of liver tumorigenesis. *Toxicol Sci.* 96: 72-82.

Guindon, K. A., Foley, J. F., Maronpot, R. R., and Massey, T. E. (2008). Failure of catalase to protect against aflatoxin B(1)-induced mouse lung tumorigenicity. *Toxicol Appl Pharmacol* 227, 179-83.

Dixon, D., Herbert R. A., Kissling, G.E., Brix, A.E., Miller, R.A. and Maronpot, R. R. (2008) Summary of chemically induced pulmonary lesions in the National Toxicology Program (NTP) Toxicology and Carcinogenesis Studies. *Toxicol Pathol* 36: 428-39.

Calderon-Garciduenas, L., Mora-Tiscareno, A., Ontiveros, E., Gomez-Garza, G., Barragan-Mejia, G., Broadway, J., Chapman, S., Valencia-Salazar, G., Jewells, V., Maronpot, R. R., Henriquez-Roldan, C., Perez-Guille, B., Torres-Jardon, R., Herrit, L., Brooks, D., Osnaya-Brizuela, N., Monroy, M. E., Gonzalez-Maciel, A., Reynoso-Robles, R., Villarreal-Calderon, R., Solt, A. C., and Engle, R. W. (2008). Air pollution, cognitive deficits and brain abnormalities: A pilot study with children and dogs. *Brain Cogn.* 68(2): 117-27.

Murkunde, Y.V., Vijayamumar, K.S., Hemalatha, K., Maronpot, R.R., Herbert, R.A., Armstrong, J.M. and Wells, M.Y. (2008) Brain Lesion in a Wistar Rat. *Lab Animal* 37(9): 401-4.

**ROBERT R. MARONPOT, DVM, MS, MPH****PUBLICATIONS AND PAPERS: – Continued**

Calderon-Garciduenas, L., Macias-Parra, M., Hoffmann, H. J., Valencia-Salazar, G., Henriquez-Roldan, C., Osnaya, N., Monte, O. C., Barragan-Mejia, G., Villarreal-Calderon, R., Romero, L., Granada-Macias, M., Torres-Jardon, R., Medina-Cortina, H., and Maronpot, R. R. (2009). Immunotoxicity and environment: Immunodysregulation and systemic inflammation in children. *Toxicol Pathol* 37, 161-169.

Moser, G. J., Foley, J., Burnett, M., Goldsworthy, T. L., and Maronpot, R. (2009). Furan-induced dose-response relationships for liver cytotoxicity, cell proliferation, and tumorigenicity (furan-induced liver tumorigenicity). *Exp Toxicol Pathol* 61, 101-111.

Calderon-Garciduenas, L., Franco-Lira, M., Henriquez-Roldan, C., Osnaya, N., Gonzalez-Maciel, A., Reynoso-Robles, R., Villarreal-Calderon, R., Herritt, L., Brooks, D., Keefe, S., Palacios-Moreno, J., Torres-Jardon, R., Medina-Cortina, H., Delgado-Chavez, R., Aiello-Mora, M., Maronpot, R. R., and Doty, R. L. (2009). Urban air pollution: Influences on olfactory function and pathology in exposed children and young adults. *Exp Toxicol Pathol*. Epub 2009/03/20

**BOOK CHAPTERS/FASCICLES:**

Maronpot RR, 1985. Considerations in the Evaluation and Interpretation of Long-Term Animal Bioassays for Carcinogenicity. In: *Handbook of Carcinogen Testing*. Noyes Pub, NJ, pp. 372-382.

Mennear J, Maronpot R, Boorman G, Eustis S, Huff J, Haseman J, McConnell E, Ragan H, and Miller R, 1986. Toxicologic and Carcinogenic Effects of Inhaled Tetrachloroethylene in Rats and Mice. In: *New Concepts and Developments in Toxicology*. Chambers P L, Gehring P, and Sakai F, eds. pp. 201-210.

Maronpot RR, 1986. Spontaneous Hydronephrosis in the Rat. In: *ILSI Monograph on Pathology of Laboratory Animals - Urinary System*. Springer-Verlag, NY, pp. 268-271.

Anderson MW, Maronpot RR, and Reynolds SH, 1988. Role of Oncogenes in Chemical Carcinogenesis: Extrapolation from Rodents to Humans. In: *Detection Methods for DNA-Damaging Agents in Men: Applications in Cancer Epidemiology and Prevention*. Bartsch H, et al., eds. IARC Scientific Publication #89, Oxford Univ. Press, pp. 477-485.

Mitsumori K, Dittrich KL, Stefanski S, and Maronpot RR, 1988. Benign and Malignant Neoplasms, Meninges, Rat. In: *ILSI Monograph on Pathology of Laboratory Animals - Nervous System*. Springer-Verlag, NY, pp. 108-117.

Maronpot RR, 1990. Tumors of the Liver. In: *Atlas of Tumor Pathology of the Fischer Rat*. CRC Press, pp. 193-220.

Belinsky SA, Walker VE, Uraih LC, Maronpot RR, Swenberg JA, and Anderson MW, 1990. Role of DNA Adduct Formation and Cell Proliferation in the Induction of Nasal Tumors in the Rat by the Tobacco Specific Carcinogen 4-(N-methyl-N-nitrosamino)-1-(3-pyridyl)-1-butanone. In: *Nasal Carcinogenesis in Rodents: Relevance to Human Health Risk*. Pudoc Wageningen, Netherlands, pp. 146-151.

**ROBERT R. MARONPOT, DVM, MS, MPH****BOOK CHAPTERS/FASCICLES: – Continued**

You M, Reynolds SH, Maronpot RR, Stoner GD, and Anderson MW 1990. Activated Oncogenes in Rodent and Human Lung Tumors. In: *Biology, Toxicology, and Carcinogenesis of Respiratory Epithelium*. Thomassen DG and Nettekoven P, eds. Hemisphere Publishing Co., NY, pp. 271-287.

Maronpot RR, 1991. Chemical Carcinogenesis. In: *Handbook of Toxicologic Pathology*. Haschek W and Rosseaux CG, eds. Academic Press, NY, pp. 99-129.

Swenberg JA and Maronpot RR, 1991. Chemically Induced Cell Proliferation as a Criterion in Selecting Doses for Long-term Bioassays. In: *Chemically Induced Cell Proliferation: Implications for Risk Assessment*. Butterworth BE, Slaga TJ, Farland W, and McClain M, eds. Vol. 369 of *Progress in Clinical and Biological Research*. Wiley-Liss, Inc., NY, pp. 245-251.

Ghanayem BI, Maronpot RR, and Matthews HB, 1991. Role of Chemically Induced Cell Proliferation in Ethyl Acrylate-induced Forestomach Carcinogenesis. In: *Chemically Induced Cell Proliferation: Implications for Risk Assessment*. Butterworth BE, Slaga TJ, Farland W, and McClain M, eds. Vol. 369 of *Progress in Clinical and Biological Research*. Wiley-Liss, Inc., NY, pp. 337-346.

Frantz JD, Betton G, Cartwright ME, Crissman JW, Macklin AW, and Maronpot RR, 1991. Proliferative Lesions of the Non-glandular and Glandular Stomach in Rats. In: *Guides for Toxicologic Pathology*. STP/ARP/AFIP, Washington, DC, pp. 1-20.

Clark G, Tritscher A, Maronpot R, Foley J, and Lucier G, 1991. Tumor Promotion by TCDD in Female Rats. In: *Banbury Report 35 - Biological Basis for Risk Assessment of dioxins and Related Compounds*. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, pp. 389-404.

Anderson M, Stanley L, Devereux T, Reynolds S, and Maronpot R, 1992. Oncogenes in Mouse Liver Tumors. In: *Comparative Molecular Carcinogenesis*. Klein-Szanto AJP, Anderson MS, Barrett JC, and Slaga TJ, eds. Wiley-Liss, Inc., NY, pp. 187-201.

Johnson GA, Benveniste H, Black RR, Cofer GP, Gewalt SL, Hedlund LW, Maronpot RR, and Suddarth SA, 1992. MR Microscopy of Disease Models. In: *Magnetic Resonance Microscopy: Methods and Applications in Materials Science and Biomedicine*. Blumich B and Kuhn W, eds. VHC, NY, pp. 501-511.

Dixon D and Maronpot RR, 1994. Tumours of the Pancreas. In: *Pathology of Tumours in Laboratory Animals*, Vol. 2. Tumours of the Mouse. IARC Publications, Lyon, pp. 281-303.

Goodman DG, Maronpot RR, Newberne PN, Popp JA, and Squire RA, 1994. Proliferative and Selected Other Lesions in the Liver of Rats. In: *Guides for Toxicologic Pathology*. STP/ARP/AFIP, Washington, DC, pp. 1-24.

Maronpot RR, Anna CH, Devereux TR, Lucier GW, Butterworth BE, and Anderson MW, 1995. Considerations Concerning the Murine Hepatocarcinogenicity of Selected Chlorinated Hydrocarbons. In: *Implications for Risk Assessment*. Wiley-Liss, Inc., NY, pp. 305-323.

**ROBERT R. MARONPOT, DVM, MS, MPH****BOOK CHAPTERS/FASCICLES: – Continued**

Davis BJ and Maronpot RR, 1996. Chemically Associated Toxicity and Carcinogenicity of the Ovary. In: Cellular and Molecular Mechanisms of Hormonal Carcinogenesis. Environmental Influences. Huff J, Boyd J, and Barrett JC, eds. Wiley-Liss, NY, pp. 285-308.

Kanno J, Ward JM, and Maronpot RR, 1996. Mechanisms of Chemically Induced Thyroid Follicular Carcinogenesis. In: Cellular and Molecular Mechanisms of Hormonal Carcinogenesis. Environmental Influences. Huff J, Boyd J, and Barrett JC, eds. Wiley-Liss, NY, pp. 353-398.

Devereux TR, Malarkey DE and Maronpot, RR. 1996. The contribution of rodent liver and lung carcinogenesis models to our knowledge of the cancer latent period. In Maltoni, C. (ed) , *The Scientific Bases of Cancer Chemoprevention*. Elsevier Publications, Amsterdam, Netherlands. pp. 45-59.

Harada, T, Maronpot, RR, Enomoto, A, Tamano, S and Ward, JM. 1996. Changes in the liver and gallbladder. In: Pathobiology of the Aging Mouse. Volume 2. Mohr, U, Dungworth, DL, Capen, CC, Carlton, WW, Sundberg, JP and Ward, JM (Eds). ILSI Press, Washington, DC. pp: 207-241.

Maronpot, RR. 1998. Chemical Carcinogenesis. In: Fundamentals of Toxicologic Pathology. Haschek, WM and Rousseaux, CG (Eds). Academic Press, New York. pp. 15-35.

Maronpot, RR. 1998. Carcinogenesis. In: Encyclopedia of Toxicology. Wexler, P. (Ed.). Academic Press, Ney York. pp. 246-268.

Nyska A and Maronpot RR. 1999. Adrenal gland. In: Pathology of the Mouse. Maronpot RR, Boorman GA and Gaul BW (Eds.). Cache River Press, Vienna, IL. pp. 509-536.

Harada T, Enomoto A, Boorman GA and Maronpot RR. 1999. Liver and gallbladder. . In: Pathology of the Mouse. Maronpot RR, Boorman GA and Gaul BW (Eds.). Cache River Press, Vienna, IL. pp. 119-184.

Mastroides S and Maronpot RR (2002) Carcinogenesis. In: Handbook of Toxicologic Pathology. 2nd Edition. Haschek WM, Russeaux CG and Wallig MA (Eds). Academic Press, San Diego. pp. 83-122.

Malarkey DE and Maronpot RR (2005) Carcinogenesis. In: Encyclopedia of Toxicology. 2nd Edition. Wexler, P (Ed). Elsevier, New York. pp. 445-466.

**CO-EDITED SYMPOSIA PROCEEDINGS:**

Alison R and Maronpot RR, 1987. Comparative Ovarian Pathology. EHP 73:3-130.

Maronpot RR and Stitzel KA, 1989. Significance of Foci of Cellular Alteration in the Rat Liver. Tox. Path. 17, No. 4 (Part 1), 557-735.

Uraih LC, Morgan KT, and Maronpot RR, 1990. Symposium on Toxicologic Pathology of the Upper Respiratory System. EHP 85:161-352.



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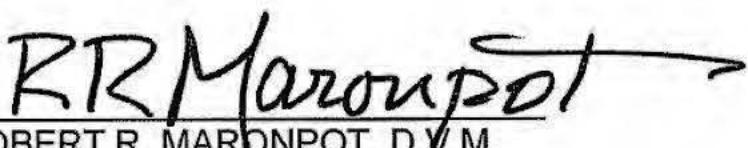
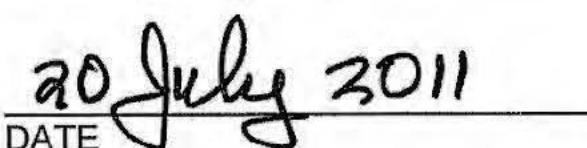
**EDITED BOOKS:**

Maronpot RR, Boorman GA and Gaul BW. 1999. Pathology of the Mouse. Cache River Press, Vienna, Va. 699 pages.

Pathology of Genetically Engineered Mice. 2000. Ward, JM, Mahler, JF, Maronpot, RR, Sundberg, JP (Eds). Iowa State University Press, Ames, Iowa. pp. 394.

**EDITED MONOGRAPHS:**

Guest Editor for A Monograph on Histomorphologic Evaluation of Lymphoid Organs (2006). Toxicol Pathol 34 (5): 407-696.

  
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