

Australian statement of hazardous nature : Classified as hazardous according to criteria of Safe Work Australia

Section 1 - Identification

Product Name Tetrahydrofuran
 CAS No 109-99-9
 Synonyms THF

Product Code **R13300**
 Address ThermoFisher Scientific Australia Pty Ltd
 5 Caribbean Drive, Scoresby
 VICTORIA 3179, Australia
 Emergency Tel. **CHEMTREC®**
03 9757 4559 or +613 9757 4559
 Telephone / Fax Numbers Tel: 1300 735 292
 Fax: 1800 067 639
 E-mail address ANZinfo@thermofisher.com

Recommended Use Laboratory chemicals.

Uses advised against This product contains one or more substance(s) on the Illicit Drug Precursors/Reagents list. Verify requirements related to using, handling and storing these substances. This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction. This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern.

Section 2 - Hazard(s) Identification

Classification under Safe Work Australia

Classified as hazardous according to criteria of Safe Work Australia

Physical hazards

Flammable liquids

Category 2

Health hazards

Acute Oral Toxicity
 Serious Eye Damage/Eye Irritation
 Carcinogenicity
 Specific target organ toxicity - (single exposure)

Category 4
 Category 2
 Category 2
 Category 3

Environmental hazards

No hazards identified

Label Elements



Flame



Exclamation Mark



Health Hazard

Signal Word**Danger****Hazard Statements**

H336 - May cause drowsiness or dizziness
 H351 - Suspected of causing cancer
 H225 - Highly flammable liquid and vapor
 H302 - Harmful if swallowed
 H319 - Causes serious eye irritation
 H335 - May cause respiratory irritation
 AUH019 - May form explosive peroxides

Precautionary Statements

P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
 P233 - Keep container tightly closed
 P240 - Ground and bond container and receiving equipment
 P241 - Use explosion-proof electrical/ ventilating/ lighting equipment
 P242 - Use non-sparking tools
 P243 - Take action to prevent static discharges
 P271 - Use only outdoors or in a well-ventilated area
 P270 - Do not eat, drink or smoke when using this product
 P280 - Wear eye protection/ face protection
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P330 - Rinse mouth
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P308 + P313 - IF exposed or concerned: Get medical advice/attention
 P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
 P501 - Dispose of contents/ container to an approved waste disposal plant

Other information

Toxic to terrestrial vertebrates
 Contains a known or suspected endocrine disruptor
 Contains a substance on the National Authorities Endocrine Disruptor Lists

Section 3 - Composition and Information on Ingredients

| Component | CAS No | Weight % |
|----------------------------|----------|----------|
| Tetrahydrofuran | 109-99-9 | >95 |
| 2,6-Di-tert-butyl-p-cresol | 128-37-0 | 0.025 |

Section 4 - First Aid Measures

| | |
|--|--|
| Inhalation | Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention. |
| Ingestion | Do NOT induce vomiting. Call a physician or poison control center immediately. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur. |
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| General Advice | If symptoms persist, call a physician. |
| Self-Protection of the First Aider | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. |
| First Aid Facilities | Eyewash, safety shower and washroom. |
| Most important symptoms and effects | Difficulty in breathing. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Causes central nervous system depression |
| Notes to Physician | Treat symptomatically. Symptoms may be delayed. |

Section 5 - Fire Fighting Measures

Suitable Extinguishing Media

Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

Extinguishing media which must not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire.

Hazardous Decomposition Products

Carbon monoxide (CO), Carbon dioxide (CO₂), peroxides.

Specific Hazards Arising from the Chemical

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. May form explosive peroxides.

Special protective equipment and precautions for fire fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6 - Accidental Release Measures

Emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges. Avoid contact with skin and eyes. Keep people away from and upwind of spill/leak.

Environmental Precautions

Should not be released into the environment.

Methods for Containment and Clean Up

Clean-up methods - small spillage

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

Clean-up methods - large spillage

Typically only supplied in small quantities as packaged goods.

If extremely toxic or used in larger quantities ensure a spillage action plan is in place. Evacuate area. Control the source and/or contain the spill if safe and able to do so. Use temporary diking, sand bags, dry sand, earth or proprietary booms/absorbent pads if available. Obtain advice on containment, neutralisation and clean-up from local emergency responders.

Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

Section 7 - Handling and Storage

Precautions for Safe Handling

Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. If peroxide formation is suspected, do not open or move container. Handle under an inert atmosphere.

Conditions for Safe Storage, Including any Incompatibilities

Store under an inert atmosphere. Shelf life 30 months (Unopened) or Shelf life: 6 months after opening. Containers should be dated when opened. May form explosive peroxides on prolonged storage. Should crystals form in a peroxidizable liquid, peroxidation may have occurred and the product should be considered extremely dangerous. In this instance, the container should only be opened remotely by professionals. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Flammables area.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

AS 1940-2004 - The storage and handling of flammable and combustible liquids

Section 8 - Exposure Controls and Personal Protection

Exposure limits

AUS - Exposure Standards for Atmospheric Contaminants in the Occupational Environment - Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:3008(1995)]

Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)] updated in August, 2005. Safe Work Australia

ACGIH - Threshold Limit Values - Ceiling (TLV-C) guidelines by the American Conference of Governmental Industrial Hygienists (ACGIH) for controlling worker exposure to airborne chemical concentrations in the workplace.

UK - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020.

DE - MAK and BAT values of Hazardous Chemical Compounds in the Work Area. Published by German Research Foundation on July 1, 2011

NZ - Workplace Exposure Standards and Biological Exposure Indices (6th edition). New Zealand Department of Labor

| Component | Australia | New Zealand WEL | ACGIH TLV | The United Kingdom | Germany |
|----------------------------|--|---|--------------------------------------|---|--|
| Tetrahydrofuran | TWA: 100 ppm TWA: 295 mg/m ³ | TWA: 50 ppm TWA: 150 mg/m ³ STEL: 100 ppm STEL: 300 mg/m ³ Skin | TWA: 50 ppm STEL: 100 ppm Skin | STEL: 100 ppm 15 min STEL: 300 mg/m ³ 15 min TWA: 50 ppm 8 hr TWA: 150 mg/m ³ 8 hr Skin | TWA: 50 ppm (8 Stunden). AGW - exposure factor 2 TWA: 150 mg/m ³ (8 Stunden). AGW - exposure factor 2 TWA: 50 ppm (8 Stunden). MAK TWA: 150 mg/m ³ (8 Stunden). MAK Höhepunkt: 100 ppm Höhepunkt: 300 mg/m ³ Haut |
| 2,6-Di-tert-butyl-p-cresol | TWA: 10 mg/m ³ | TWA: 10 mg/m ³ | TWA: 2 mg/m ³ | STEL: 30 mg/m ³ 15 min TWA: 10 mg/m ³ 8 hr | TWA: 10 mg/m ³ (8 Stunden). AGW - exposure factor 4 TWA: 10 mg/m ³ (8 Stunden). MAK can occur as vapor and aerosol at the same time |

| | | | | | |
|--|--|--|--|--|---------------------------------|
| | | | | | Höhepunkt: 40 mg/m ³ |
|--|--|--|--|--|---------------------------------|

Biological limit values

NZ - Substances assigned Biological Exposure Indices in the New Zealand Workplace Exposure Standards and Biological Exposure Indices (6th edition). New Zealand Department of Labor

| Component | Australia | New Zealand | European Union | United Kingdom | Germany |
|-----------------|-----------|--|----------------|----------------|---|
| Tetrahydrofuran | | 2 mg/g creatinine (urine) end of exposure or shift, within 1 hour of end of exposure (THF) | | | Tetrahydrofuran: 2 mg/L urine (end of shift) |

Exposure Controls**Engineering Measures**

Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment**Eye Protection**

Goggles (Australian/New Zealand Standard AS/NZS 1337 - Eye protectors for Industrial applications)

Hand Protection

Protective gloves

| Glove material | Breakthrough time | Glove thickness | AUS/NZ Standard | Glove comments |
|-----------------|-------------------|-----------------|-----------------|--|
| Butyl rubber | < 25 minutes | 0.6 mm | AS/NZS 2161 | Permeation rate 106 µg/cm ² /min As tested under EN374-3 Determination of Resistance to Permeation by Chemicals |
| Neoprene gloves | < 15 minutes | 0.45 mm | | |

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection

Long sleeved clothing

Respiratory Protection

Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use and maintenance of respiratory protective devices

Recommended Filter type:

Organic gases and vapours filter Type A Brown conforming to EN14387 (or AUS/NZ equivalent)

Recommended half mask:-

Valve filtering: EN405 or Half mask: EN140 plus filter, EN 141 (or AUS/NZ equivalent) When RPE is used a face piece Fit Test should be conducted

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No information available.

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties**Appearance**

Colorless

Physical State

Liquid

| | | |
|---|---|---|
| Odor | Petroleum distillates | |
| Odor Threshold | No data available | |
| pH | 7-8 | 20% aq. solution |
| Melting Point/Range | -108.4 °C / -163.1 °F | |
| Softening Point | No data available | |
| Boiling Point/Range | 66 °C / 150.8 °F | |
| Flash Point | -21 °C / -5.8 °F | Method - No information available |
| Evaporation Rate | > 1 (Ether = 1.0) | (Butyl Acetate = 1.0) |
| Flammability (solid,gas) | Not applicable | Liquid |
| Explosion Limits | Lower 1.5 vol% Upper 12 vol% | |
| Vapor Pressure | 170 mbar @ 20 °C | |
| Vapor Density | 2.5 (Ether = 1.0) | (Air = 1.0) |
| Specific Gravity / Density | 0.880 | |
| Bulk Density | Not applicable | Liquid |
| Water Solubility | Miscible | |
| Solubility in other solvents | No information available | |
| Partition Coefficient (n-octanol/water) | | |
| Component | log Pow | |
| Tetrahydrofuran | 0.45 | |
| 2,6-Di-tert-butyl-p-cresol | 5.1 | |
| Autoignition Temperature | 215 - °C / 419 - °F | |
| Decomposition Temperature | No data available | |
| Viscosity | 0.456 mPas @ 20°C Dynamic | |
| Explosive Properties | | Vapors may form explosive mixtures with air |
| Oxidizing Properties | No information available | |
| Other information | | |
| Molecular Formula | C4 H8 O | |
| Molecular Weight | 72.11 | |

Section 10 - Stability and Reactivity

| | |
|----------------------------------|---|
| Reactivity | Yes. May form explosive peroxides |
| Stability | Stable under recommended storage conditions. Reacts with air to form peroxides. May form explosive peroxides on prolonged storage. Hygroscopic. |
| Conditions to Avoid | Incompatible products, Excess heat, Keep away from open flames, hot surfaces and sources of ignition, Exposure to moist air or water. |
| Incompatible Materials | Strong oxidizing agents, Acids. |
| Hazardous Decomposition Products | Carbon monoxide (CO). Carbon dioxide (CO ₂). peroxides. |
| Hazardous Polymerization | Hazardous polymerization may occur. |

Section 11 - Toxicological Information

Information on Toxicological Effects

Product Information

| | |
|---------------------|--|
| (a) acute toxicity; | |
| Oral | Category 4 |
| Dermal | Based on available data, the classification criteria are not met |
| Inhalation | Based on available data, the classification criteria are not met |

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-----------|-----------|-------------|-----------------|
|-----------|-----------|-------------|-----------------|

| | | | |
|----------------------------|--------------------|-----------------------|---|
| Tetrahydrofuran | 1650 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | 180 mg/L (Rat) 1 h 53.9 mg/L (Rat) 4 h |
| 2,6-Di-tert-butyl-p-cresol | > 6 g/kg (Rat) | > 2 g/kg (Rat) | |

(b) skin corrosion/irritation; Based on available data, the classification criteria are not met

(c) serious eye damage/irritation; Category 2

(d) respiratory or skin sensitization;

Respiratory

Based on available data, the classification criteria are not met

Skin

Based on available data, the classification criteria are not met

| Component | Test method | Test species | Study result |
|-------------------------------------|---|--------------|-----------------|
| Tetrahydrofuran 109-99-9 (>95) | Local Lymph Node Assay OECD Test Guideline 429 | mouse | non-sensitising |

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

| Component | Test method | Test species | Study result |
|-------------------------------------|---|-----------------------|--------------|
| Tetrahydrofuran 109-99-9 (>95) | OECD Test Guideline 476 Gene cell mutation | in vivo Mammalian | negative |
| | OECD Test Guideline 473 Chromosomal aberration assay | in vitro Mammalian | negative |

(f) carcinogenicity;

Category 2

Limited evidence of a carcinogenic effect

| Component | Australia | New Zealand | New South Wales | Western Australia | IARC | EU | UK | Germany |
|-----------------|-----------|-------------------------|--------------------|----------------------|----------|----|----|---------|
| Tetrahydrofuran | | Suspected carcinogen | | | Group 2B | | | |

(g) reproductive toxicity; Based on available data, the classification criteria are not met

| Component | Test method | Test species / Duration | Study result |
|-------------------------------------|-------------------------|-------------------------|-------------------|
| Tetrahydrofuran 109-99-9 (>95) | OECD Test Guideline 416 | Rat 2 Generation | NOAEL = 3,000 ppm |

(h) STOT-single exposure;

Category 3

Results / Target organs

Respiratory system
Central nervous system (CNS)

(i) STOT-repeated exposure;

Based on available data, the classification criteria are not met

Test method

OECD Test No. 407

Test species / Duration

Rat / 28 days

Study result

NOAEL = 1,000 mg/l

Route of exposure

Oral

Target Organs

None known.

(j) aspiration hazard;

Based on available data, the classification criteria are not met

Symptoms / effects, both acute and delayed

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting:
Causes central nervous system depression

Section 12 - Ecological Information

Ecotoxicity effects

Do not empty into drains.

| Component | Freshwater Fish | Water Flea | Freshwater Algae | Microtox |
|-----------------|-----------------------|---------------------|------------------|----------|
| Tetrahydrofuran | 2160 mg/l LC50 = 96 h | EC50 48 h 3485 mg/l | | |

| | | | | |
|----------------------------|---|-----------------------|---|--|
| | Pimephales promelas Leuciscus idus: LC50: 2820 mg/L/48h | EC50: >10000 mg/L/24h | | |
| 2,6-Di-tert-butyl-p-cresol | LC50 = 0.199 mg/L 96h | EC50 >0.31 mg/L 48h | EC50 = 0.758 mg/L 96h EC50 = 6 mg/L 72 h | EC50 = 7.82 mg/L 5 min EC50 = 8.57 mg/L 15 min EC50 = 8.98 mg/L 30 min |

Persistence and Degradability**Persistence****Degradation in sewage****treatment plant****Bioaccumulative Potential**

Product is biodegradable

Persistence is unlikely, based on information available.

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Bioaccumulation is unlikely

| Component | log Pow | Bioconcentration factor (BCF) |
|----------------------------|---------|-------------------------------|
| Tetrahydrofuran | 0.45 | No data available |
| 2,6-Di-tert-butyl-p-cresol | 5.1 | 230 - 2500 dimensionless |

Mobility

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Will likely be mobile in the environment due to its volatility. Disperses rapidly in air

Endocrine Disruptor Information

| Component | EU - Endocrine Disruptors Candidate List | EU - Endocrine Disruptors - Evaluated Substances | Japan - Endocrine Disruptor Information |
|-----------------|---|---|--|
| Tetrahydrofuran | Group III Chemical | | |

Persistent Organic Pollutant

This product does not contain any known or suspected substance

Ozone Depletion Potential

This product does not contain any known or suspected substance

Section 13 - Disposal Considerations

Waste from Residues/Unused Products

Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations.

Contaminated Packaging

Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

Other Information

Chemical wastes should be disposed through a licensed commercial waste collection service. Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations.

Section 14 - Transport Information

IMDG/IMO

| | |
|----------------------|-----------------|
| UN-No | UN2056 |
| Proper Shipping Name | TETRAHYDROFURAN |
| Hazard Class | 3 |
| Packing Group | II |

ADG

| | |
|----------------------|-----------------|
| UN-No | UN2056 |
| Proper Shipping Name | TETRAHYDROFURAN |
| Hazard Class | 3 |
| Packing Group | II |

| Component | Hazchem Code |
|-------------------------------------|--------------|
| Tetrahydrofuran 109-99-9 (>95) | 2YE |

IATA

UN-No UN2056
Proper Shipping Name TETRAHYDROFURAN
Hazard Class 3
Packing Group II

Environmental hazards No hazards identified

Special Precautions No special precautions required

Additional information None known

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

National Regulations Australia

See section 8 for national exposure control parameters.

Standard for the Uniform Scheduling of Medicines and Poisons

No poison schedule number allocated.

Australian Industrial Chemicals Introduction Scheme (AICIS)

| Component | Australian Industrial Chemicals Introduction Scheme (AICIS) | Additional information |
|---------------------------------------|---|------------------------|
| Tetrahydrofuran - 109-99-9 | Present | - |
| 2,6-Di-tert-butyl-p-cresol - 128-37-0 | Present | - |

Australian - Illicit Drug Precursors/Reagents Substance List

This product contains one or more substance(s) on the Illicit Drug Precursors/Reagents list. Verify requirements related to using, handling and storing these substances.

Chemicals of Security Concern

This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern

| Component | Australian - Illicit Drug Precursors/Reagents Substance List | Chemicals of Security Concern |
|----------------------------|--|-------------------------------|
| Tetrahydrofuran - 109-99-9 | Category 3 | |

Legend

Category 3 - Chemicals and apparatus that may be used in the illicit production of drugs. Purchases from this list should alert companies or organizations to seek further indicators of any suspicious orders or enquiries. No official reporting is required for items on this list unless considered warranted

National pollutant inventory Not applicable

Prohibition or notification/licensing requirements

Shown below are details of specific prohibition/notifications or licensing requirements when they apply.

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction.

| Component | Australia | New South Wales | Western Australia | New Zealand |
|----------------------------|-----------|-----------------|-------------------|----------------------|
| Tetrahydrofuran - 109-99-9 | | | | Suspected carcinogen |

International Inventories

| Component | AICS | NZIoC | EINECS | ELINCS | TSCA | DSL | NDSL | PICCS | ENCS | ISHL | IECSC | KECL |
|----------------------------|------|-------|-----------|--------|------|-----|------|-------|------|------|-------|----------|
| Tetrahydrofuran | X | X | 203-726-8 | - | X | X | - | X | X | X | X | KE-33454 |
| 2,6-Di-tert-butyl-p-cresol | X | X | 204-881-4 | - | X | X | - | X | X | X | X | KE-03079 |

Legend: X - Listed. '-' - Not Listed. **KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

International Regulations

Ozone Depletion Potential This product does not contain any known or suspected substance

Persistent Organic Pollutant This product does not contain any known or suspected substance

Rotterdam Convention (PIC) Not applicable

Basel convention on the control of transboundary movements of hazardous wastes and their disposal
Not applicable.

| Component | CAS No | OECD HPV | Restriction of Hazardous Substances (RoHS) | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements |
|----------------------------|----------|----------|--|---|--|
| Tetrahydrofuran | 109-99-9 | Listed | Not applicable | Not applicable | Not applicable |
| 2,6-Di-tert-butyl-p-cresol | 128-37-0 | Listed | Not applicable | Not applicable | Not applicable |

Authorisation/Restrictions according to EU REACH

| Component | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|-----------------|---|---|---|
| Tetrahydrofuran | - | Use restricted. See item 75. (see link for restriction details) | - |

<https://echa.europa.eu/substances-restricted-under-reach>

Section 16 - Other Information

Legend

AICS - Australian Inventory of Chemical Substances
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
IECSC - Chinese Inventory of Existing Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

NZIoC - New Zealand Inventory of Chemicals
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japanese Existing and New Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
CAS - Chemical Abstracts Service

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from Ships

NZS 5433:2020 - Transport of Dangerous Goods on Land

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

WEL - Workplace Exposure Limit

DNEL - Derived No Effect Level

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

VOC - (Volatile Organic Compound)

ACGIH - American Conference of Governmental Industrial Hygienists
Predicted No Effect Concentration (PNEC)

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

ADG - Australian Code for the Transport of Dangerous Goods by Road and Rail

OECD - Organisation for Economic Co-operation and Development

LC50 - Lethal Concentration 50%

ATE - Acute Toxicity Estimate

RPE - Respiratory Protective Equipment

NOEC - No Observed Effect Concentration

BCF - Bioconcentration factor

PBT - Persistent, Bioaccumulative, Toxic

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

Chemical incident response training.

Revision Date

25-Sep-2023

Revision Summary

Initial Release.

This Safety Data Sheet (SDS) is prepared in accordance to and complies with the requirements of Safe Work Australia - Work Health and Safety Regulations (WHS Regulations).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet