

BLUE

## \*\*\* MATERIAL SAFETY DATA SHEET \*\*\*

date of prep : 09/24/96

32063 (page 1)

## SECTION I

manufacturer : C.E. BRADLEY LABORATORIES, INC.  
 address : P.O. BOX 8238  
 N. BRATTLEBORO, VT 05304  
 RICHARD S. CARLSON, CHIEF CHEMIST  
 telephone# : (802) 257-7971  
 emergency# : (802) 257-7971

## - H M I S -

! HEALTH : 1 !  
 ! FLAMMABILITY : 3 !  
 ! REACTIVITY : 1 !  
 ! PERSONAL PROTECT.: H !

product class: F00 (HAZARD RATING : 0=least, 1=slight, 2=moderate, 3=high, 4=extreme, \*=chronic)  
 mfg. code id : 32063 MSDS revision# : 5 (H = splash goggles, gloves, synthetic apron, & vapor respirator)  
 trade name : YALE BLUE TUMBLING ENAMEL .06% LEAD FREE (32063)

## SECTION II-A

## HAZARDOUS COMPONENTS

no.	component	CAS#	% by wt.	SARA	vapor pressure (mm Hg @ 20 C)	LEL (@ 25 C)
1	VM&P NAPHTHA	8032-32-4 ✓	15 - 20	NO	5.20	1.20
2	TOLUENE (BENZENE, METHYL-)	108-88-3 ✓	10 - 15	YES	24.00	1.00
3	XYLENE	1330-20-7 ✓	1 - 5	YES	6.60	1.00
4	MINERAL SPIRITS	8052-41-3 ✓	10 - 15	NO	3.10	0.70

&gt;&gt; None of the components of this product are recognized as carcinogenic.

>> Under the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372, chemicals listed on the Section 313 List (40 CFR Part 373.65) are identified under the heading "SARA"

## SECTION II-B

## OCCUPATIONAL EXPOSURE LIMITS

no.	(OSHA) PEL/TWA	PEL/CEILING	PEL/STEL	skin
1	300 ppm	N/E	400 ppm	N/E
2	100 ppm	N/E	150 ppm	N/E
3	100 ppm	N/E	150 ppm	N/E
4	100 ppm	N/E	N/E	N/E

no.	(ACGIH) TLV/TWA	TLV/CEILING	TLV/STEL	skin
1	300 ppm	N/E	400 ppm	N/E
2	100 ppm	N/E	150 ppm	N/E
3	100 ppm	N/E	150 ppm	N/E
4	100 ppm	N/E	200 ppm	N/E

&gt;&gt; The dried film of this product may become a dust nuisance when removed by sanding, blasting or grinding.

>> (SKIN) absorption may contribute to the overall exposure to this material. Take appropriate measures to prevent skin contact.  
 (N/E = not established)

## SECTION III

## PHYSICAL DATA

boiling point	: not established	% volatile by volume	: 58.45 +/- 2%
evaporation rate	: <1 (ether = 1)	% volatile by weight	: 48.74 +/- 2%
vapor density	: >1 (air = 1)	weight per gallon	: 7.97 +/- .2
VOC	: 3.8852	VOC (w/H2O)	: 3.8844

BLUE

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SECTION IV

HEALTH INFORMATION

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EYE CONTACT

BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3 AND 4 PRODUCT IS PRESUMED TO BE MODERATELY IRRITATING TO THE EYES. EXPOSURE MAY CAUSE CORNEAL INJURY. BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3 AND 4 PRODUCT VAPORS MAY ALSO BE IRRITATING TO THE EYES.

SKIN CONTACT

BASED ON THE PRESENCE OF COMPONENTS 2 AND 3 PRODUCT IS PRESUMED TO BE MODERATELY IRRITATING TO THE SKIN. PROLONGED CONTACT MAY CAUSE DAMAGE TO THIE SKIN. BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3 AND 4 PROLONGED OR REPEATED CONTACT MAY RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN DERMATITIS.

INHALATION

EXPOSURE MAY PRODUCE IRRITATION TO THE NOSE, THROAT, RESPIRATORY TRACT, AND OTHER MUCOUS MEMBRANES. BASED ON THE PRESENCE OF COMPONENTS 2 AND 3 EXPOSURE TO HIGH CONCENTRATIONS OF VAPOR MAY PRODUCE CNS DEPRESSION.

INGESTION

BASED ON THE PRESENCE OF COMPONENTS 2 AND 3 PRODUCT IS PRESUMED TO BE SLIGHTLY TOXIC. BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3 AND 4 SMALL AMOUNTS OF THE LIQUID ASPIRATED INTO THE LUNGS DURING INGESTION OR FROM VOMITING MAY RESULT IN SEVERE LUNG DAMAGE.

SIGNS AND SYMPTOMS

SYMPTOMS OF EYE IRRITATION INCLUDE PAIN, TEARING, REDDENING AND SWELLING. SYMPTOMS OF SKIN IRRITATION INCLUDE REDDENING, SWELLING, RASH AND REDNESS. SYMPTOMS OF RESPIRATORY IRRITATION INCLUDE RUNNY NOSE, SORE THROAT, COUGHING, CHEST DISCOMFORT, SHORTNESS OF BREATH AND REDUCED LUNG FUNCTION. SYMPTOMS OF GASTROINTESTIONAL IRRITATION INCLUDE SORE THROAT, ABDOMINAL PAIN, NAUSEA, VOMITING AND DIARRHEA. BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3 AND 4 CENTRAL NERVOUS SYSTEM DEPRESSION MAY BE EVIDENCED BY HEADACHE, DIZZINESS, NAUSEA AND SYMPTOMS OF INTOXICATION; IN EXTREME CASES, UNCONSCIOUSNESS AND DEATH MAY OCCUR.

AGGRAVATED MEDICAL CONDITIONS

PREEXISTING SKIN, EYE AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. IMPAIRED LIVER FUNCTIONS FROM PREEXISTING DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. BASED ON THE PRESENCE OF COMPONENTS 1 AND 4 PREEXISTING SKIN OR LUNG ALLERGIES MAY INCREASE THE CHANCE OF DEVELOPING INCREASED ALLERGY SYMPTOMS FROM EXPOSURE TO THIS PRODUCT.

OTHER HEALTH EFFECTS

NONE RECOGNIZED.

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SECTION V

EMERGENCY AND FIRST AID PROCEDURES

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EYE CONTACT

IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. SEEK PROMPT MEDICAL ATTENTION.

SKIN CONTACT

IMMEDIATELY REMOVE CONTAMINATED CLOTHING AND SHOES. WIPE EXCESS FROM SKIN AND FLUSH WITH WATER FOR AT LEAST 15 MINUTES USING SOAP IF AVAILABLE. SEEK PROMPT MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL THOROUGHLY DECONTAMINATED.

INHALATION

REMOVE VICTIM TO FRESH AIR AND TREAT SYMPTOMATICALLY. PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF THE VICTIM IS NOT BREATHING. SEEK PROMPT MEDICAL ATTENTION.

INGESTION

DO NOT INDUCE VOMITING. IF VOMITING SPONTANEOUSLY OCCURS, KEEP THE VICTIM'S HEAD BELOW THE HIPS TO PREVENT ASPIRATION INTO THE LUNGS. SINCE ASPIRATION INTO THE LUNGS CAN CAUSE VERY SERIOUS, PERMANENT DAMAGE, THE DECISION OF WHETHER TO INDUCE VOMITING OR NOT SHOULD BE MADE BY A PHYSICIAN. DANGER FROM LUNG ASPIRATION MUST BE WEIGHED AGAINST TOXICITY WHEN CONSIDERING EMPTYING THE STOMACH. CONSULT A PHYSICIAN, HOSPITAL OR POISON CONTROL CENTER AND/OR TRANSPORT TO AN EMERGENCY FACILITY IMMEDIATELY.

BLUE

SECTION VI

FIRE AND EXPLOSION HAZARDS

flammability classification - OSHA : FLAMMABLE LIQUID - CLASS IB  
- DOT : FLAMMABLE LIQUID PACKING GROUP II

flash point : 45 F TCC

EXTINGUISHING MEDIA

USE WATER FOG, FOAM, DRY CHEMICAL OR CARBON DIOXIDE.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS

WARNING, FLAMMABLE. CLEAR FIRE AREA OF UNPROTECTED PERSONNEL. DO NOT ENTER CONFINED FIRE SPACE WITHOUT HELMET, FACE SHIELD, BUNKER COAT, GLOVES, RUBBER BOOTS, AND A POSITIVE PRESSURE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS.

UNUSUAL FIRE AND EXPLOSION HAZARDS

CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE. GROUND CONTAINERS WHILE POURING AND LIMIT FREE FALL TO A FEW INCHES TO PREVENT STATIC SPARKS. AVOID SPONTANEOUS COMBUSTION OF CONTAMINATED RAGS AND OTHER EASILY IGNITABLE ORGANIC ACCUMULATIONS (SUCH AS SPRAY BOOTH RESIDUES) BY IMMEDIATE IMMERSION IN WATER.

SECTION VII

REACTIVITY

STABILITY : STABLE

HAZARDOUS POLYMERIZATION : WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID

BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3 AND 4 AVOID OXIDIZING MATERIALS.

HAZARDOUS DECOMPOSITION PRODUCTS

CARBON DIOXIDE, CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION VIII

EMPLOYEE PROTECTION

RESPIRATORY PROTECTION

AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. IF EXPOSURE EXCEEDS TLV USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE.

PROTECTIVE CLOTHING

AVOID CONTACT WITH EYES. WEAR GOGGLES IF THERE IS A LIKELIHOOD OF CONTACT WITH EYES. DO NOT GET ON SKIN OR ON CLOTHING.

ADDITIONAL PROTECTIVE MEASURES

USE VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE FOR USE IN AN EMERGENCY.

SECTION IX

ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES

LARGE SPILLS >> EVACUATE THE HAZARD AREA OF UNPROTECTED PERSONNEL. WEAR APPROPRIATE RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN. IF VAPOR CLOUD FORMS, WATER FOG MAY BE USED TO SUPPRESS; CONTAIN RUN-OFF. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTIONS AS ABOVE. SMALL SPILLS >> TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS; SEAL TIGHTLY FOR PROPER DISPOSAL.

WASTE DISPOSAL

REFER TO LATEST EPA OR STATE REGULATIONS REGARDING PROPER DISPOSAL.

BLUE

SECTION X

ADDITIONAL PRECAUTIONS

KEEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS, AND FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER POSSIBLE SOURCES OF IGNITION PRIOR TO USE AND UNTIL VAPORS ARE GONE. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. VAPORS MAY ACCUMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM HANDLING SITE.

CONTAINERS CAN CONTAIN HAZARDOUS PRODUCT RESIDUES EVEN WHEN EMPTY. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. KEEP CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILLATION. CONTAINER, EVEN IF EMPTY, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, OR WELD NEAR CONTAINERS.

THE DATA SET FORTH IN THIS SHEET ARE BASED ON INFORMATION PROVIDED BY THE SUPPLIERS OF THE RAW MATERIALS AND CHEMICALS USED IN THE MANUFACTURE OF THE AFFOREMENTIONED PRODUCT. C.E.BRADLEY MAKES NO WARRANTY, EXPRESS OR IMPLIED WITH RESPECT TO THE ACCURACY OF THE INFORMATION PROVIDED BY THEIR SUPPLIERS, AND DISCLAIMS ALL LIABILITY OF RELIANCE THEREOF. C.E.BRADLEY LABORATORIES, INC. WARRANTS ONLY THAT ITS PRODUCTS CONFORM WITH THEIR PUBLISHED SPECIFICATIONS, AND NO OTHER EXPRESS WARRANTY IS MADE WITH REGARD THERETO. WE DO NOT GUARANTEE FAVORABLE RESULTS AND WE ASSUME NO LIABILITY IN CONNECTION WITH THE USE OF THE PRODUCTS. THEY ARE INTENDED FOR USE BY PERSONS HAVING TECHNICAL SKILL AND KNOWLEDGE, AT THEIR OWN DISCRETION AND RISK.

CLEAR VARN

## \*\*\* MATERIAL SAFETY DATA SHEET \*\*\*

date of prep : 09/24/96

27783 (page 1)

## SECTION I

manufacturer : C.E. BRADLEY LABORATORIES, INC.  
 address : P.O. BOX 8238  
 N. BRATTLEBORO, VT 05304  
 RICHARD S. CARLSON, CHIEF CHEMIST  
 telephone# : (802) 257-7974  
 emergency# : (802) 257-7974

## - H M I S -

HEALTH : 1  
 FLAMMABILITY : 3  
 REACTIVITY : 1  
 PERSONAL PROTECT.: H

product class: F00

(HAZARD RATING : 0=least, 1=slight, 2=moderate, 3=high, 4=extreme, \*=chronic)

mfg. code id : 27783

MSDS revision# : 5

(H = splash goggles, gloves, synthetic apron, &amp; vapor respirator)

trade name : CLEAR HOT STAMPING VARNISH (27783)

## SECTION II-A

## HAZARDOUS COMPONENTS

no.	component	CAS#	% by wt.	SARA	vapor pressure (mm Hg @ 20 C)	LEL (@ 25 C)
1	MINERAL SPIRITS	8052-41-3	25 - 30	NO	3.10	0.70
2	RESIDUAL S-100	N/A	1 - 5	NO	N/A	N/A
3	XYLENE	1330-20-7	1 - 5	YES	6.60	1.00
4	VM&P NAPHTHA	8032-32-4	20 - 25	NO	5.20	1.20

&gt;&gt; None of the components of this product are recognized as carcinogenic.

&gt;&gt; Under the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986

(SARA) and 40 CFR Part 372, chemicals listed on the Section 313 List (40 CFR Part 373.65) are identified under the heading 'SARA

(N/A = not applicable)

## SECTION II-B

## OCCUPATIONAL EXPOSURE LIMITS

no.	(OSHA) PEL/TWA	PEL/CEILING	PEL/STEL	skin
1	100 ppm	N/E	N/E	N/E
2	N/E	N/E	N/E	N/E
3	100 ppm	N/E	150 ppm	N/E
4	300 ppm	N/E	400 ppm	N/E

no.	(ACGIH) TLV/TWA	TLV/CEILING	TLV/STEL	skin
1	100 ppm	N/E	200 ppm	N/E
2	N/E	N/E	N/E	N/E
3	100 ppm	N/E	150 ppm	N/E
4	300 ppm	N/E	400 ppm	N/E

&gt;&gt; The dried film of this product may become a dust nuisance when removed by sanding, blasting or grinding.

&gt;&gt; (SKIN) absorption may contribute to the overall exposure to this material. Take appropriate measures to prevent skin contact.

(N/E = not established)

## SECTION III

## PHYSICAL DATA

boiling point	: not established	% volatile by volume	: 61.72 +/- 2%
evaporation rate	: <1 (ether = 1)	% volatile by weight	: 53.18 +/- 2%
vapor density	: >1 (air = 1)	weight per gallon	: 7.46 +/- .2
VOC	: 3.9672	VOC (w/H2O)	: 3.9672

CLEAR VARN

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SECTION IV

HEALTH INFORMATION

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EYE CONTACT

BASED ON THE PRESENCE OF COMPONENTS 1, 3 AND 4 PRODUCT IS PRESUMED TO BE MODERATELY IRRITATING TO THE EYES. EXPOSURE MAY CAUSE CORNEAL INJURY. BASED ON THE PRESENCE OF COMPONENTS 1, 3 AND 4 PRODUCT VAPORS MAY ALSO BE IRRITATING TO THE EYES.

SKIN CONTACT

BASED ON THE PRESENCE OF COMPONENT 3 PRODUCT IS PRESUMED TO BE MODERATELY IRRITATING TO THE SKIN. PROLONGED CONTACT MAY CAUSE DAMAGE TO THIS SKIN. BASED ON THE PRESENCE OF COMPONENTS 1, 3 AND 4 PROLONGED OR REPEATED CONTACT MAY RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN DERMATITIS.

INHALATION

EXPOSURE MAY PRODUCE IRRITATION TO THE NOSE, THROAT, RESPIRATORY TRACT, AND OTHER MUCOUS MEMBRANES. BASED ON THE PRESENCE OF COMPONENT 3 EXPOSURE TO HIGH CONCENTRATIONS OF VAPOR MAY PRODUCE CNS DEPRESSION.

INGESTION

BASED ON THE PRESENCE OF COMPONENT 3 PRODUCT IS PRESUMED TO BE SLIGHTLY TOXIC. BASED ON THE PRESENCE OF COMPONENTS 1, 3 AND 4 SMALL AMOUNTS OF THE LIQUID ASPIRATED INTO THE LUNGS DURING INGESTION OR FROM VOMITING MAY RESULT IN SEVERE LUNG DAMAGE.

SIGNS AND SYMPTOMS

SYMPTOMS OF EYE IRRITATION INCLUDE PAIN, TEARING, REDDENING AND SWELLING. SYMPTOMS OF SKIN IRRITATION INCLUDE REDDENING, SWELLING, RASH AND REDNESS. SYMPTOMS OF RESPIRATORY IRRITATION INCLUDE RUNNY NOSE, SORE THROAT, COUGHING, CHEST DISCOMFORT, SHORTNESS OF BREATH AND REDUCED LUNG FUNCTION. SYMPTOMS OF GASTROINTESTINAL IRRITATION INCLUDE SORE THROAT, ABDOMINAL PAIN, NAUSEA, VOMITING AND DIARRHEA. BASED ON THE PRESENCE OF COMPONENTS 1, 3 AND 4 CENTRAL NERVOUS SYSTEM DEPRESSION MAY BE EVIDENCED BY HEADACHE, DIZZINESS, NAUSEA AND SYMPTOMS OF INTOXICATION; IN EXTREME CASES, UNCONSCIOUSNESS AND DEATH MAY OCCUR.

AGGRAVATED MEDICAL CONDITIONS

EXISTING SKIN, EYE AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. IMPAIRED LIVER FUNCTIONS FROM PREEXISTING DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. BASED ON THE PRESENCE OF COMPONENTS 1 AND 4 PREEXISTING SKIN OR LUNG ALLERGIES MAY INCREASE THE CHANCE OF DEVELOPING INCREASED ALLERGY SYMPTOMS FROM EXPOSURE TO THIS PRODUCT.

OTHER HEALTH EFFECTS

NONE RECOGNIZED.

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SECTION V

EMERGENCY AND FIRST AID PROCEDURES

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EYE CONTACT

IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. SEEK PROMPT MEDICAL ATTENTION.

SKIN CONTACT

IMMEDIATELY REMOVE CONTAMINATED CLOTHING AND SHOES. WIPE EXCESS FROM SKIN AND FLUSH WITH WATER FOR AT LEAST 15 MINUTES USING SOAP IF AVAILABLE. SEEK PROMPT MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL THOROUGHLY DECONTAMINATED.

INHALATION

REMOVE VICTIM TO FRESH AIR AND TREAT SYMPTOMATICALLY. PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF THE VICTIM IS NOT BREATHING. SEEK PROMPT MEDICAL ATTENTION.

INGESTION

DO NOT INDUCE VOMITING. IF VOMITING SPONTANEOUSLY OCCURS, KEEP THE VICTIM'S HEAD BELOW THE HIPS TO PREVENT ASPIRATION INTO THE LUNGS. SINCE ASPIRATION INTO THE LUNGS CAN CAUSE VERY SERIOUS, PERMANENT DAMAGE, THE DECISION OF WHETHER TO INDUCE VOMITING OR NOT SHOULD BE MADE BY A PHYSICIAN. DANGER FROM LUNG ASPIRATION MUST BE WEIGHED AGAINST TOXICITY WHEN CONSIDERING EMPTYING THE ACH. CONSULT A PHYSICIAN, HOSPITAL OR POISON CONTROL CENTER AND/OR TRANSPORT TO AN EMERGENCY FACILITY IMMEDIATELY.

CLEAR VARN

\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*

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SECTION VI

FIRE AND EXPLOSION HAZARDS

flammability classification - OSHA : COMBUSTIBLE LIQUID - CLASS II  
- DOT : FLAMMABLE LIQUID PACKING GROUP II

flash point : 105 F TCC

EXTINGUISHING MEDIA

USE WATER FOG, FOAM, DRY CHEMICAL OR CARBON DIOXIDE.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS

WARNING. COMBUSTIBLE. CLEAR FIRE AREA OF UNPROTECTED PERSONNEL. DO NOT ENTER CONFINED FIRE SPACE WITHOUT HELMET, FACE SHIELD, BUNKER COAT, GLOVES, RUBBER BOOTS, AND A POSITIVE PRESSURE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS.

UNUSUAL FIRE AND EXPLOSION HAZARDS

CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE. GROUND CONTAINERS WHILE POURING AND LIMIT FREE FALL TO A FEW INCHES TO PREVENT STATIC SPARKS. AVOID SPONTANEOUS COMBUSTION OF CONTAMINATED RAGS AND OTHER EASILY IGNITABLE ORGANIC ACCUMULATIONS (SUCH AS SPRAY BOOTH RESIDUES) BY IMMEDIATE IMMERSION IN WATER.

SECTION VII

REACTIVITY

STABILITY : STABLE

HAZARDOUS POLYMERIZATION : WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID

BASED ON THE PRESENCE OF COMPONENTS 1, 3 AND 4 AVOID OXIDIZING MATERIALS.

HAZARDOUS DECOMPOSITION PRODUCTS

CARBON DIOXIDE, CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION VIII

EMPLOYEE PROTECTION

RESPIRATORY PROTECTION

AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. IF EXPOSURE EXCEEDS TLV USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE.

PROTECTIVE CLOTHING

AVOID CONTACT WITH EYES. WEAR GOGGLES IF THERE IS A LIKELIHOOD OF CONTACT WITH EYES. DO NOT GET ON SKIN OR ON CLOTHING.

ADDITIONAL PROTECTIVE MEASURES

USE VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE FOR USE IN AN EMERGENCY.

SECTION IX

ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES

LARGE SPILLS >> EVACUATE THE HAZARD AREA OF UNPROTECTED PERSONNEL. WEAR APPROPRIATE RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN. IF VAPOR CLOUD FORMS, WATER FOG MAY BE USED TO SUPPRESS; CONTAIN RUN-OFF. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTIONS AS ABOVE. SMALL SPILLS >> TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS; SEAL TIGHTLY FOR PROPER DISPOSAL.

WASTE DISPOSAL

REFER TO LATEST EPA OR STATE REGULATIONS REGARDING PROPER DISPOSAL.

CLEAR VARN

\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*

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SECTION X

ADDITIONAL PRECAUTIONS

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KEEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS, AND FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER POSSIBLE SOURCES OF IGNITION PRIOR TO USE AND UNTIL VAPORS ARE GONE. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. VAPORS MAY ACCUMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM HANDLING SITE.

CONTAINERS CAN CONTAIN HAZARDOUS PRODUCT RESIDUES EVEN WHEN EMPTY. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. KEEP CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILLATION. CONTAINER, EVEN IF EMPTY, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, OR WELD NEAR CONTAINERS.

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date of prep : 11/12/96

## \*\*\* MATERIAL SAFETY DATA SHEET \*\*\*

19826 (page 1)

## SECTION I

manufacturer : C.E. BRADLEY LABORATORIES, INC.  
 address : P.O. BOX 8238  
 N. BRATTLEBORD, VT 05304  
 RICHARD S. CARLSON, CHIEF CHEMIST  
 telephone# : (802) 257-7971  
 emergency# : (802) 257-7971

## - H M I S -

HEALTH : 1  
 FLAMMABILITY : 3  
 REACTIVITY : 1  
 PERSONAL PROTECT.: H

product class: F00  
 mfg. code id : 19826 MSDS revision# : 5  
 trade name : 19826 RED TUMBLING ENAMEL (8F107A)

(HAZARD RATING : 0=least, 1=slight, 2=moderate, 3=high, 4=extreme, \*=chronic)  
 (H = splash goggles, gloves, synthetic apron, & vapor respirator)

## SECTION II-A

## HAZARDOUS COMPONENTS

no.	component	CAS#	% by wt.	SARA	vapor pressure (mm Hg @ 20 C)	LEL (@ 25 C)
1	VN&P NAPHTHA	8032-32-4 ✓	15 - 20	NO	5.20	1.20
2	TOLUENE (BENZENE, METHYL-)	108-88-3 ✓	5 - 10	YES	24.00	1.00
3	XYLENE	1330-20-7 ✓	1 - 5	YES	6.60	1.00
4	MINERAL SPIRITS	8052-41-3 ✓	15 - 20	NO	3.10	0.70

&gt;&gt; None of the components of this product are recognized as carcinogenic.

>> Under the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372, chemicals listed on the Section 313 List (40 CFR Part 373.65) are identified under the heading 'SARA

## SECTION II-B

## OCCUPATIONAL EXPOSURE LIMITS

no.	(OSHA) PEL/TWA	PEL/CEILING	PEL/STEL	skin
1	300 ppm	N/E	400 ppm	N/E
2	100 ppm	N/E	150 ppm	N/E
3	100 ppm	N/E	150 ppm	N/E
4	100 ppm	N/E	N/E	N/E

no.	(ACGIH) TLV/TWA	TLV/CEILING	TLV/STEL	skin
1	300 ppm	N/E	400 ppm	N/E
2	100 ppm	N/E	150 ppm	N/E
3	100 ppm	N/E	150 ppm	N/E
4	100 ppm	N/E	200 ppm	N/E

&gt;&gt; The dried film of this product may become a dust nuisance when removed by sanding, blasting or grinding.

>> (SKIN) absorption may contribute to the overall exposure to this material. Take appropriate measures to prevent skin contact.  
 (N/E = not established)

## SECTION III

## PHYSICAL DATA

boiling point	: not established	% volatile by volume	: 54.60 +/- 2%
evaporation rate	: <1 (ether = 1)	% volatile by weight	: 43.92 +/- 2%
vapor density	: >1 (air = 1)	weight per gallon	: 8.18 +/- .2
WDC	: 3.5926	VOC (w/H2O)	: 3.5904

## SECTION IV

## HEALTH INFORMATION

### EYE CONTACT

BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3 AND 4 PRODUCT IS PRESUMED TO BE MODERATELY IRRITATING TO THE EYES. EXPOSURE MAY CAUSE CORNEAL INJURY. BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3 AND 4 PRODUCT VAPORS MAY ALSO BE IRRITATING TO THE EYES.

### SKIN CONTACT

BASED ON THE PRESENCE OF COMPONENTS 2 AND 3 PRODUCT IS PRESUMED TO BE MODERATELY IRRITATING TO THE SKIN. PROLONGED CONTACT MAY CAUSE DAMAGE TO THIE SKIN. BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3 AND 4 PROLONGED OR REPEATED CONTACT MAY RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN DERMATITIS.

### INHALATION

EXPOSURE MAY PRODUCE IRRITATION TO THE NOSE, THROAT, RESPIRATORY TRACT, AND OTHER MUCOUS MEMBRANES. BASED ON THE PRESENCE OF COMPONENTS 2 AND 3 EXPOSURE TO HIGH CONCENTRATIONS OF VAPOR MAY PRODUCE CNS DEPRESSION.

### INGESTION

BASED ON THE PRESENCE OF COMPONENTS 2 AND 3 PRODUCT IS PRESUMED TO BE SLIGHTLY TOXIC. BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3 AND 4 SMALL AMOUNTS OF THE LIQUID ASPIRATED INTO THE LUNGS DURING INGESTION OR FROM VOMITING MAY RESULT IN SEVERE LUNG DAMAGE.

### SIGNS AND SYMPTOMS

SYMPTOMS OF EYE IRRITATION INCLUDE PAIN, TEARING, REDDENING AND SWELLING. SYMPTOMS OF SKIN IRRITATION INCLUDE REDDENING, SWELLING, RASH AND REDNESS. SYMPTOMS OF RESPIRATORY IRRITATION INCLUDE RUNNY NOSE, SORE THROAT, COUGHING, CHEST DISCOMFORT, SHORTNESS OF BREATH AND REDUCED LUNG FUNCTION. SYMPTOMS OF GASTROINTESTINAL IRRITATION INCLUDE SORE THROAT, ABDOMINAL PAIN, NAUSEA, VOMITING AND DIARRHEA. BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3 AND 4 CENTRAL NERVOUS SYSTEM DEPRESSION MAY BE EVIDENCED BY HEADACHE, DIZZINESS, NAUSEA AND SYMPTOMS OF INTOXICATION; IN EXTREME CASES, UNCONSCIOUSNESS AND DEATH MAY OCCUR.

### AGGRAVATED MEDICAL CONDITIONS

PREEXISTING SKIN, EYE AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. IMPAIRED LIVER FUNCTIONS FROM PREEXISTING DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. BASED ON THE PRESENCE OF COMPONENTS 1 AND 4 PREEXISTING SKIN OR LUNG ALLERGIES MAY INCREASE THE CHANCE OF DEVELOPING INCREASED ALLERGY SYMPTOMS FROM EXPOSURE TO THIS PRODUCT.

### OTHER HEALTH EFFECTS

NONE RECOGNIZED.

## SECTION V

## EMERGENCY AND FIRST AID PROCEDURES

### EYE CONTACT

IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. SEEK PROMPT MEDICAL ATTENTION.

### SKIN CONTACT

IMMEDIATELY REMOVE CONTAMINATED CLOTHING AND SHOES. WIPE EXCESS FROM SKIN AND FLUSH WITH WATER FOR AT LEAST 15 MINUTES USING SOAP IF AVAILABLE. SEEK PROMPT MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL THOROUGHLY DECONTAMINATED.

### INHALATION

REMOVE VICTIM TO FRESH AIR AND TREAT SYMPTOMATICALLY. PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF THE VICTIM IS NOT BREATHING. SEEK PROMPT MEDICAL ATTENTION.

### INGESTION

DO NOT INDUCE VOMITING. IF VOMITING SPONTANEOUSLY OCCURS, KEEP THE VICTIM'S HEAD BELOW THE HIPS TO PREVENT ASPIRATION INTO THE LUNGS. SINCE ASPIRATION INTO THE LUNGS CAN CAUSE VERY SERIOUS, PERMANENT DAMAGE, THE DECISION OF WHETHER TO INDUCE VOMITING OR SHOULD BE MADE BY A PHYSICIAN. DANGER FROM LUNG ASPIRATION MUST BE WEIGHED AGAINST TOXICITY WHEN CONSIDERING EMPTYING THE STOMACH. CONSULT A PHYSICIAN, HOSPITAL OR POISON CONTROL CENTER AND/OR TRANSPORT TO AN EMERGENCY FACILITY IMMEDIATELY.

SECTION VI

FIRE AND EXPLOSION HAZARDS

flammability classification - OSHA : FLAMMABLE LIQUID - CLASS IB  
 - DOT : FLAMMABLE LIQUID PACKING GROUP II  
 flash point : 45 F TCC

EXTINGUISHING MEDIA

USE WATER FOG, FOAM, DRY CHEMICAL OR CARBON DIOXIDE.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS

WARNING. FLAMMABLE. CLEAR FIRE AREA OF UNPROTECTED PERSONNEL. DO NOT ENTER CONFINED FIRE SPACE WITHOUT HELMET, FACE SHIELD, BUNKER COAT, GLOVES, RUBBER BOOTS, AND A POSITIVE PRESSURE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS.

UNUSUAL FIRE AND EXPLOSION HAZARDS

CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE. GROUND CONTAINERS WHILE POURING AND LIMIT FREE FALL TO A FEW INCHES TO PREVENT STATIC SPARKS. AVOID SPONTANEOUS COMBUSTION OF CONTAMINATED RAGS AND OTHER EASILY IGNITABLE ORGANIC ACCUMULATIONS (SUCH AS SPRAY BOOTH RESIDUES) BY IMMEDIATE IMMERSION IN WATER.

SECTION VII

REACTIVITY

STABILITY : STABLE

HAZARDOUS POLYMERIZATION : WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID

BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3 AND 4 AVOID OXIDIZING MATERIALS.

HAZARDOUS DECOMPOSITION PRODUCTS

CARBON DIOXIDE, CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION VIII

EMPLOYEE PROTECTION

RESPIRATORY PROTECTION

AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. IF EXPOSURE EXCEEDS TLV USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE.

PROTECTIVE CLOTHING

AVOID CONTACT WITH EYES. WEAR GOGGLES IF THERE IS A LIKELIHOOD OF CONTACT WITH EYES. DO NOT GET ON SKIN OR ON CLOTHING.

ADDITIONAL PROTECTIVE MEASURES

USE VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE FOR USE IN AN EMERGENCY.

SECTION IX

ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES

LARGE SPILLS >> EVACUATE THE HAZARD AREA OF UNPROTECTED PERSONNEL. WEAR APPROPRIATE RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN. IF VAPOR CLOUD FORMS, WATER FOG MAY BE USED TO SUPPRESS; CONTAIN RUN-OFF. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTIONS AS ABOVE. SMALL SPILLS >> TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS; SEAL TIGHTLY FOR PROPER DISPOSAL.

WASTE DISPOSAL

REFER TO LATEST EPA OR STATE REGULATIONS REGARDING PROPER DISPOSAL.

SECTION 4

ADDITIONAL PRECAUTIONS

KEEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS, AND FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER POSSIBLE SOURCES OF IGNITION PRIOR TO USE AND UNTIL VAPORS ARE GONE. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. VAPORS MAY ACCUMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM HANDLING SITE.

CONTAINERS CAN CONTAIN HAZARDOUS PRODUCT RESIDUES EVEN WHEN EMPTY. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. KEEP CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILLATION. CONTAINER, EVEN IF EMPTY, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, OR WELD NEAR CONTAINERS.

THE DATA SET FORTH IN THIS SHEET ARE BASED ON INFORMATION PROVIDED BY THE SUPPLIERS OF THE RAW MATERIALS AND CHEMICALS USED IN THE MANUFACTURE OF THE AFFOREMENTIONED PRODUCT. C.E.BRADLEY MAKES NO WARRANTY, EXPRESS OR IMPLIED WITH RESPECT TO THE ACCURACY OF THE INFORMATION PROVIDED BY THEIR SUPPLIERS, AND DISCLAIMS ALL LIABILITY OF RELIANCE THEREOF. C.E.BRADLEY LABORATORIES, INC. WARRANTS ONLY THAT ITS PRODUCTS CONFORM WITH THEIR PUBLISHED SPECIFICATIONS, AND NO OTHER EXPRESS WARRANTY IS MADE WITH REGARD THERETO. WE DO NOT GUARANTEE FAVORABLE RESULTS AND WE ASSUME NO LIABILITY IN CONNECTION WITH THE USE OF THE PRODUCTS. THEY ARE INTENDED FOR USE BY PERSONS HAVING TECHNICAL SKILL AND KNOWLEDGE, AT THEIR OWN DISCRETION AND RISK.

YELLOW

C-67H

## \*\*\* MATERIAL SAFETY DATA SHEET \*\*\*

Date of prep : 01/04/00

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## SECTION I

manufacturer : C.E. BRADLEY LABORATORIES  
 address : P.O. BOX 8238  
 N. BRATTLEBORD, VT 05304  
 RICHARD S. CARLSON, CHIEF CHEMIST  
 telephone# : (802) 257-7971  
 emergency# : (802) 257-7971

## - H M I S -

! HEALTH : 1 !  
 ! FLAMMABILITY : 3 !  
 ! REACTIVITY : 1 !  
 ! PERSONAL PROTECT.: H !

product class: F00  
 mfg. code id : 46215

(HAZARD RATING : 0=least, 1=slight, 2=moderate, 3=high, 4=extreme, \*=chronic)  
 (H = splash goggles, gloves, synthetic apron, & vapor respirator)

trade name : HIGH HIDING YELLOW TUMBLING ENAMEL (46215)

## SECTION II-A

## HAZARDOUS COMPONENTS

no.	component	CAS#	% by wt.	HAPS	SARA	vapor pressure (mm Hg @ 20C)	LEL (@ 25C)
1	VM&P NAPHTHA	8032-32-4	10 - 15	NO	NO	5.20	1.20
2	TOLUENE (BENZENE, METHYL-)	108-88-3	5 - 10	YES	YES	24.00	1.00
3	XYLENE	1330-20-7	15 - 20	YES	YES	6.60	1.00
4	ETHYL BENZENE	100-41-4	1 - 5	YES	YES	5.40	1.00
5	MINERAL SPIRITS	8052-41-3	5 - 10	NO	NO	3.10	0.70
6	CADMIUM	7440-43-9	1 - 5	NO	YES	N/A	N/A

Component number 6 is listed by NTP, OSHA and IARC as a carcinogen or a possible carcinogen.

Refer to appropriate reference sources for additional information concerning carcinogens.

>> Under the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372, chemicals listed on the Section 313 List (40 CFR Part 373.65) are identified under the heading 'SARA 313'.

(N/A = not applicable)

## SECTION II-B

## OCCUPATIONAL EXPOSURE LIMITS

no.	(OSHA) PEL/TWA	PEL/CEILING	PEL/STEL	skin
1	300 ppm	N/E	400 ppm	N/E
2	100 ppm	N/E	150 ppm	N/E
3	100 ppm	N/E	150 ppm	N/E
4	100 ppm	N/E	N/E	N/E
5	100 ppm	N/E	N/E	N/E
6	.2 MG/M3 AS Cd DUST	N/E	N/E	N/E

no.	(ACGIH) TLV/TWA	TLV/CEILING	TLV/STEL	skin
1	300 ppm	N/E	400 ppm	N/E
2	100 ppm	N/E	150 ppm	N/E
3	100 ppm	N/E	150 ppm	N/E
4	100 ppm	N/E	125 ppm	N/E
5	100 ppm	N/E	200 ppm	N/E
6	.05 MG/M3 AS Cd DUST	N/E	N/E	N/E

(The dried film of this product may become a dust nuisance when removed by sanding, blasting or grinding.)

&gt;&gt; (SKIN) absorption may contribute to the overall exposure to this material. Take appropriate measures to prevent skin contact.

(N/E = not established)

Yellow

\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*

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SECTION III

PHYSICAL DATA

boiling point : not established  
evaporation rate : <1 (ether = 1)  
vapor density : >1 (air = 1)  
VOC : 4.22%

% volatile by volume : 61.45 +/- 2%  
% volatile by weight : 50.52 +/- 2%  
weight per gallon : 8.37 +/- .2  
VOC (Exempt) : 4.22%

SECTION IV

HEALTH INFORMATION

EYE CONTACT

BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3 AND 5 PRODUCT IS PRESUMED TO BE MODERATELY IRRITATING TO THE EYES. EXPOSURE MAY CAUSE CORNEAL INJURY. BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3, 4 AND 5 PRODUCT VAPORS MAY ALSO BE IRRITATING TO THE EYES.

SKIN CONTACT

BASED ON THE PRESENCE OF COMPONENTS 2 AND 3 PRODUCT IS PRESUMED TO BE MODERATELY IRRITATING TO THE SKIN. PROLONGED CONTACT MAY CAUSE DAMAGE TO THIE SKIN. BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3, 4 AND 5 PROLONGED OR REPEATED CONTACT MAY RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN DERMATITIS.

INHALATION

EXPOSURE MAY PRODUCE IRRITATION TO THE NOSE, THROAT, RESPIRATORY TRACT, AND OTHER MUCOUS MEMBRANES. BASED ON THE PRESENCE OF COMPONENTS 2, 3 AND 4 EXPOSURE TO HIGH CONCENTRATIONS OF VAPOR MAY PRODUCE CNS DEPRESSION.

INGESTION

BASED ON THE PRESENCE OF COMPONENTS 2 AND 3 PRODUCT IS PRESUMED TO BE SLIGHTLY TOXIC. BASED ON THE PRESENCE OF COMPONENTS 1, 2, 4 AND 5 SMALL AMOUNTS OF THE LIQUID ASPIRATED INTO THE LUNGS DURING INGESTION OR FROM VOMITING MAY RESULT IN SEVERE LUNG DAMAGE.

SIGNS AND SYMPTOMS

SYMPTOMS OF EYE IRRITATION INCLUDE PAIN, TEARING, REDDENING AND SWELLING. SYMPTOMS OF SKIN IRRITATION INCLUDE REDDENING, SWELLING, RASH AND REDNESS. SYMPTOMS OF RESPIRATORY IRRITATION INCLUDE RUNNY NOSE, SORE THROAT, COUGHING, CHEST DISCOMFORT, SHORTNESS OF BREATH AND REDUCED LUNG FUNCTION. SYMPTOMS OF GASTROINTESTINAL IRRITATION INCLUDE SORE THROAT, ABDOMINAL PAIN, NAUSEA, VOMITING AND DIARRHEA. BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3, 4 AND 5 CENTRAL NERVOUS SYSTEM DEPRESSION MAY BE EVIDENCED BY HEADACHE, DIZZINESS, NAUSEA AND SYMPTOMS OF INTOXICATION; IN EXTREME CASES, UNCONSCIOUSNESS AND DEATH MAY OCCUR.

AGGRAVATED MEDICAL CONDITIONS

PREEXISTING SKIN, EYE AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. IMPAIRED LIVER FUNCTIONS FROM PREEXISTING DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. BASED ON THE PRESENCE OF COMPONENTS 1 AND 5 PREEXISTING SKIN OR LUNG ALLERGIES MAY INCREASE THE CHANCE OF DEVELOPING INCREASED ALLERGY SYMPTOMS FROM EXPOSURE TO THIS PRODUCT.

OTHER HEALTH EFFECTS

NONE RECOGNIZED.

SECTION V

EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT

IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. SEEK PROMPT MEDICAL ATTENTION.

SKIN CONTACT

IMMEDIATELY REMOVE CONTAMINATED CLOTHING AND SHOES. WIPE EXCESS FROM SKIN AND FLUSH WITH WATER FOR AT LEAST 15 MINUTES USING SOAP AVAILABLE. SEEK PROMPT MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL THOROUGHLY DECONTAMINATED.

INHALATION

REMOVE VICTIM TO FRESH AIR AND TREAT SYMPTOMATICALLY. PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF THE VICTIM IS NOT BREATHING. SEEK PROMPT MEDICAL ATTENTION.

Yellow

\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*

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INGESTION

DO NOT INDUCE VOMITING. IF VOMITING SPONTANEOUSLY OCCURS, KEEP THE VICTIM'S HEAD BELOW THE HIPS TO PREVENT ASPIRATION INTO THE LUNGS. SINCE ASPIRATION INTO THE LUNGS CAN CAUSE VERY SERIOUS, PERMANENT DAMAGE, THE DECISION OF WHETHER TO INDUCE VOMITING OR NOT SHOULD BE MADE BY A PHYSICIAN. DANGER FROM LUNG ASPIRATION MUST BE WEIGHED AGAINST TOXICITY WHEN CONSIDERING EMPTYING THE STOMACH. CONSULT A PHYSICIAN, HOSPITAL OR POISON CONTROL CENTER AND/OR TRANSPORT TO AN EMERGENCY FACILITY IMMEDIATELY.

>> COMPONENT 4 PRODUCT MAY CAUSE SEVERE, PERMANENT DAMAGE IF ASPIRATED AND VOMITING SHOULD NOT BE INDUCED.

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SECTION VI

FIRE AND EXPLOSION HAZARDS

flammability classification - OSHA : FLAMMABLE LIQUID - CLASS IB  
- DOT : FLAMMABLE LIQUID PACKING GROUP III  
flash point : 45 F TCC

EXTINGUISHING MEDIA

USE WATER FOG, FOAM, DRY CHEMICAL OR CARBON DIOXIDE.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS

WARNING. FLAMMABLE. CLEAR FIRE AREA OF UNPROTECTED PERSONNEL. DO NOT ENTER CONFINED FIRE SPACE WITHOUT HELMET, FACE SHIELD, BUNKER COAT, GLOVES, RUBBER BOOTS, AND A POSITIVE PRESSURE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS.

UNUSUAL FIRE AND EXPLOSION HAZARDS

CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE. GROUND CONTAINERS WHILE POURING AND LIMIT FREE FALL TO A FEW INCHES TO PREVENT STATIC SPARKS. AVOID SPONTANEOUS COMBUSTION OF CONTAMINATED RAGS AND OTHER EASILY IGNITABLE ORGANIC ACCUMULATIONS (SUCH AS SPRAY BOOTH RESIDUES) BY IMMEDIATE IMMERSION IN WATER.

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SECTION VII

REACTIVITY

STABILITY : STABLE

HAZARDOUS POLYMERIZATION : WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID

BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3, 4 AND 5 AVOID OXIDIZING MATERIALS.

HAZARDOUS DECOMPOSITION PRODUCTS

CARBON DIOXIDE, CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

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SECTION VIII

EMPLOYEE PROTECTION

RESPIRATORY PROTECTION

AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. IF EXPOSURE EXCEEDS TLV USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE.

PROTECTIVE CLOTHING

AVOID CONTACT WITH EYES. WEAR GOGGLES IF THERE IS A LIKELIHOOD OF CONTACT WITH EYES. DO NOT GET ON SKIN OR ON CLOTHING.

ADDITIONAL PROTECTIVE MEASURES

USE VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE FOR USE IN AN EMERGENCY.

YELLOW

\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*

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SECTION IX

ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES

LARGE SPILLS >> EVACUATE THE HAZARD AREA OF UNPROTECTED PERSONNEL. WEAR APPROPRIATE RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN. IF VAPOR CLOUD FORMS, WATER FOG MAY BE USED TO SUPPRESS; CONTAIN RUN-OFF. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTIONS AS ABOVE. SMALL SPILLS >> TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS; SEAL TIGHTLY FOR PROPER DISPOSAL.

WASTE DISPOSAL

REFER TO LATEST EPA OR STATE REGULATIONS REGARDING PROPER DISPOSAL.

SECTION X

ADDITIONAL PRECAUTIONS

KEEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS, AND FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER POSSIBLE SOURCES OF IGNITION PRIOR TO USE AND UNTIL VAPORS ARE GONE. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. VAPORS MAY ACCUMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM HANDLING SITE.

CONTAINERS CAN CONTAIN HAZARDOUS PRODUCT RESIDUES EVEN WHEN EMPTY. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. KEEP CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILLATION. CONTAINER, EVEN IF EMPTY, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, OR WELD NEAR CONTAINERS.

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