ACCORDING TO OSHA HCS (29 CFR 1910.1200)



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DN 1: IDENTIFICATION		
Product identifier used on the label	M-Bond 600 Adhesive	
Other means of identification	Not applicable	
Recommended use of the chemical and restrictions on use		
Recommended use	Adhesives.	
Restrictions on use	Anything other than the above.	
Details of the supplier of the safety data sheet		
Supplier	VISHAY MEASUREMENTS GROU	JP, INC.
Address of Supplier	Post Office Box 27777	
···· · · · · · · · · · · · · · · · · ·	Raleigh, NC 27611	
	USA	
Telephone	+1 919-365-3800	
Fax	+1 919-365-3945	
E-Mail (competent person)	mm.us@vishaypg.com	
	mm.us@visitdypy.com	
Emergency telephone number	1-800-424-0200	CHEMTREC (24 hours)
Emergency telephone number	1-800-424-9300	CHEINI REC (24 HOUIS)
N 2: HAZARD(S) IDENTIFICATION		
Classification of the substance or mixture in accordance with paragraph (d) of 29 CFR 1910.1200		
Physical hazards	Flammable Liquid, Category 2	
Health hazards	Acute toxicity, Category 4	
	Skin Irritation, Category 2	
	Skin Irritation, Category 2 Skin Sensitisation, Category 1	
	Skin Sensitisation, Category 1	
	Skin Sensitisation, Category 1 Eye Irritation, Category 2	ale exposure. Category 3
	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin	gle exposure, Category 3
Environmental hazarda	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2	
Environmental hazards	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin	
	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2	
Environmental hazards Hazard Symbol	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2	
Hazard Symbol	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2	
Hazard Symbol Signal Word(s)	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2 Hazardous to the aquatic environm	hent, Chronic, Category 2
Hazard Symbol Signal Word(s)	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2 Hazardous to the aquatic environm	hent, Chronic, Category 2
Hazard Symbol Signal Word(s)	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2 Hazardous to the aquatic environm Carcinogen, Category 2 Hazardous to the aquatic environm Danger Highly flammable liquid and vapour Harmful if swallowed.	hent, Chronic, Category 2
Hazard Symbol Signal Word(s)	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2 Hazardous to the aquatic environm Carcinogen, Category 2 Danger Highly flammable liquid and vapour Harmful if swallowed. Causes skin irritation.	r.
Hazard Symbol Signal Word(s)	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2 Hazardous to the aquatic environm Carcinogen, Category 2 Danger Highly flammable liquid and vapou Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction	r.
Hazard Symbol Signal Word(s)	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2 Hazardous to the aquatic environm Carcinogen, Category 2 Danger Highly flammable liquid and vapour Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation.	r.
Hazard Symbol Signal Word(s)	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2 Hazardous to the aquatic environm Carcinogen, Category 2 Hazardous to the aquatic environm Carcinogen, Category 2 Danger Highly flammable liquid and vapour Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation. May cause respiratory irritation.	r.
Hazard Symbol Signal Word(s)	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2 Hazardous to the aquatic environm Carcinogen, Category 2 Hazardous to the aquatic environm Carcinogen, Category 2 Danger Highly flammable liquid and vapour Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation. May cause respiratory irritation. Suspected of causing cancer.	nent, Chronic, Category 2
	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2 Hazardous to the aquatic environm Carcinogen, Category 2 Hazardous to the aquatic environm Carcinogen, Category 2 Danger Highly flammable liquid and vapour Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation. May cause respiratory irritation.	nent, Chronic, Category 2
Hazard Symbol Signal Word(s) Hazard Statement(s)	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2 Hazardous to the aquatic environm Caccinogen, Category 2 Hazardous to the aquatic environm Caccinogen, Category 2 Danger Highly flammable liquid and vapour Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation. May cause respiratory irritation. Suspected of causing cancer. Toxic to aquatic life with long lastin	nent, Chronic, Category 2
Hazard Symbol Signal Word(s)	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2 Hazardous to the aquatic environm Danger Highly flammable liquid and vapour Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation. May cause respiratory irritation. Suspected of causing cancer. Toxic to aquatic life with long lastin Obtain special instructions before to	nent, Chronic, Category 2
Hazard Symbol Signal Word(s) Hazard Statement(s)	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2 Hazardous to the aquatic environm Danger Highly flammable liquid and vapour Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation. May cause respiratory irritation. Suspected of causing cancer. Toxic to aquatic life with long lastin Obtain special instructions before to Keep away from heat, hot surfaces	nent, Chronic, Category 2
Hazard Symbol Signal Word(s) Hazard Statement(s)	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2 Hazardous to the aquatic environm Danger Highly flammable liquid and vapour Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation. May cause respiratory irritation. Suspected of causing cancer. Toxic to aquatic life with long lastin Obtain special instructions before a Keep away from heat, hot surfaces sources. No smoking.	nent, Chronic, Category 2
Hazard Symbol Signal Word(s) Hazard Statement(s)	Skin Sensitisation, Category 1 Eye Irritation, Category 2 Specific target organ toxicity — sin Carcinogen, Category 2 Hazardous to the aquatic environm Danger Highly flammable liquid and vapour Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction Causes serious eye irritation. May cause respiratory irritation. Suspected of causing cancer. Toxic to aquatic life with long lastin Obtain special instructions before to Keep away from heat, hot surfaces	nent, Chronic, Category 2

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Wash hands and exposed skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
5
Rinse mouth.
IF ON SKIN: Wash with plenty of water.
If skin irritation or rash occurs: Get medical advice/attention.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
lenses, if present and easy to do. Continue rinsing.
If eye irritation persists, get medical advice/attention.
IF exposed or concerned: Get medical advice/attention.
May form explosive peroxides.

Other hazards

0%

Percent of the mixture consists of ingredient(s) of unknown acute toxicity:

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances Not applicable

Mixtures Substances in preparations / mixtures

Chemical identity of the substance	%W/W	CAS No.	EC No.	Hazard classification
Tetrahydrofuran	45 – 55	109-99-9	203-726-8	Flammable Liquid, Category 2 Acute toxicity, Category 4 Eye Irritation, Category 2 (SCL \geq 25%) Specific target organ toxicity — single exposure, Category 3 (SCL \geq 25%) Carcinogen, Category 2
Polyglycidyl Ether of Phenol-Formaldehyde	30 – 40	28064-14-4	608-164-0	Skin Irritation, Category 2 Skin Sensitisation, Category 1 Eye Irritation, Category 2 Hazardous to the aquatic environment, Chronic, Category 2
Ethyl methyl ketone	12-18	78-93-3	201-159-0	Flammable Liquid, Category 2 Eye Irritation, Category 2 Specific target organ toxicity — single exposure, Category 3

SECTION 4: FIRST AID MEASURES



Description of first aid measures Self-protection of the first aider

Inhalation

Skin Contact

Use personal protective equipment as required. Wear appropriate personal protective equipment, avoid direct contact. Ensure adequate ventilation. Avoid breathing vapours. Avoid all contact. Contaminated clothing should be laundered before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF exposed or concerned: Get medical advice/attention.

IF ON SKIN: Remove contaminated clothing and wash all affected areas with plenty of water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. IF exposed or concerned: Get

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Eye Contact	medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get
Ingestion	 medical advice/attention. IF exposed or concerned: Get medical advice/attention. IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. Suspected of causing cancer.
Most important symptoms and effects, both acute and delayed	Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. Suspected of causing cancer.
Indication of any immediate medical attention and special treatment needed	Treat symptomatically.
Notes to a physician:	IF INHALED: Respiratory symptoms, including pulmonary edema, may be delayed.

IF IN EYES: After rinsing affected eyes must be seen by an ophthalmologist.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media	
Suitable Extinguishing Media	As appropriate for surrounding fire. Extinguish with carbon dioxide, dry chemical, foam or waterspray.
Unsuitable extinguishing Media	Do not use water jet. Direct water jet may spread the fire.
Special hazards arising from the substance or mixture	Highly flammable liquid and vapour. May decompose in a fire giving off toxic fumes. Carbon monoxide, Carbon dioxide, Phenolic and Explosive Peroxides. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback. Prevent liquid entering sewers, basements and workpits; vapour may create explosive atmosphere. May form explosive peroxides.
Special protective equipment and precautions for fire fighters	Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation. Stop leak if safe to do so. Eliminate all ignition sources if safe to do so. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use personal protective equipment as required. See Section: 8. Avoid breathing vapours.
Methods and material for containment and cleaning up	Use non-sparking equipment when picking up flammable spill. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Ventilate the area and wash spill site after material pick-up is complete. Dispose of this material and its container as hazardous waste.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Ensure operatives are trained to minimise exposures. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid all contact. Do not breathe vapour. Ensure adequate ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only non-sparking tools. May form explosive peroxides. Take precautionary measures against static discharges. Use personal protective equipment as required. See Section: 8. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Ground/bond container and receiving equipment. Keep only in original container. Store in a well-ventilated place. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Conditions for safe storage, including any incompatibilities

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 Storage temperature
 May form explosive peroxides. Keep away from direct sunlight.

 Storage temperature
 Ambient. Keep at temperature not exceeding (°C): 32

 Incompatible materials
 Keep away from: Oxidizing agents, Corrosive Substances, Reducing agent, Strong Acids and Alkalis.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
		200	590	250*	735*	NIOSH
Tetrahydrofuran 109-99-9	109-99-9	200	590	-	-	OSHA
		50	-	100	-	ACGIH, Sk, A3
		200	590	300*	885*	NIOSH
Ethyl methyl ketone 78-93	78-93-3	200	590	-	-	OSHA
		200	-	300	-	ACGIH

Note: OSHA PELs 1910.1000 TABLE Z-1/ NIOSH RELs / ACGIH TLVs

*NIOSH average value of 15 minutes.

Sk: Can be absorbed through the skin.

A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histological type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiological studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.

The other components listed in Section 3 do not have occupational exposure limits.

Biological Exposure Indices

SUBSTANCE	CAS No.	Determinant	Biological Exposure Indices	Sampling Time	Note
Tetrahydrofuran	109-99-9	Tetrahydrofuran in urine	2 mg/L	End of shift	-
Ethyl methyl ketone	78-93-3	Methyl ethyl ketone in urine	2 mg/L	End of shift	Ns

Source: 2015 ACGIH Biological Exposure Indicies (BEIs)

Ns - Nonspecific

The other components listed in Section 3 do not have biological exposure indicies.

Appropriate engineering controls	Ensure operatives are trained to minimise exposures. Ensure adequate ventilation. Atmospheric levels should be controlled in compliance with the occupational exposure limit.
Individual protection measures, such as personal protective equipment (PPE)	General hygiene measures for the handling of chemicals are applicable. Keep good industrial hygiene. Avoid all contact. Avoid breathing vapours. Wash hands before breaks and after work. Keep work clothes separately. Do not eat, drink or smoke at the work place. IF exposed: Flush with fresh water if contact with skin or eyes.
Eye/face protection	Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection.
Skin protection	Hand protection: Wear impervious gloves. Gloves should be changed regularly to avoid

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Respiratory protection



permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Recommended: Polyethylene-Laminate (Minimum thickness 0.1mm).

Body protection:

Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

In case of inadequate ventilation wear respiratory protection. A suitable mask with filter type A may be appropriate.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical	properties
Appearance	Almost colourless Liquid
Odor	Ether-like Odour
Odor Threshold	Not available.
рН	Not established.
Melting Point/Freezing Point	Not available.
Initial boiling point and boiling range	66°C
Flash Point	-14 °C (Mixture)
Evaporation rate (Butyl acetate = 1)	8 (BuAc = 1)
Flammability (solid, gas)	Not applicable - Liquid
Upper/lower flammability or explosive limits	Flammable Limits (Lower) (%v/v): 1.8 Flammable Limits (Upper) (%v/v): 11.8
Vapour pressure	129 (mmHg) @ 20°C
Vapour density	2.4 (Air = 1)
Relative density	0.9 (H2O = 1)
Solubility(ies)	Water: >50%
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	320 °C
Decomposition Temperature	Not available.
Viscosity	Not available.
Other information:	VOC 598 a/L

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions. May form peroxides on prolonged storage if air is present.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Highly flammable liquid and vapour. The vapour may be invisible, heavier than air and spread along ground. May form explosive peroxides. Contact with aliphatic amines will cause irreversible polymerization with considerable heat build-up.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from direct sunlight. Keep at a temperature not exceeding (°C): 32. Avoid contact with air. Avoid contact with heat and ignition sources and oxidizers. Avoid distillation to dryness, which can form explosive peroxides.
Incompatible materials	Oxidizing agents, Corrosive Substances, Reducing agent, Strong Acids and Alkalis.
Hazardous decomposition product(s)	May decompose in a fire giving off toxic fumes. Carbon monoxide, Carbon dioxide, Phenolic and Explosive Peroxides.

SAFETY DATA SHEET

Version: 4.0 Date of Issue: 27 April 2017 Date of First Issue: 20 March 2012

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SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects (Substances in preparations / mixtures)

Acute toxicity - Ingestion	Acute Toxicity, Category 4: Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.
	Acute Toxicity Estimate Mixture Calculation: Estimated LC50 >750 mg/kg bw/day.
Tetrahydrofuran:	Test Result LD50 <1 ml/kg bw (Standard acute method).
Acute toxicity - Inhalation	Based upon the available data, the classification criteria are not met.
	Acute Toxicity Estimate Mixture Calculation: Estimated LC50 >20.0 mg/l.
Acute toxicity - Skin Contact	Based upon the available data, the classification criteria are not met.
	Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.
Skin corrosion/irritation	Skin Irritation, Category 2: Causes skin irritation.
Polyglycidyl Ether of Phenol-Formaldehyde:	No data. EU classification and labelling inventory
Ethyl methyl ketone:	Prolonged skin contact will result in defatting of the skin, leading to irritation, and in some cases, dermatitis. (Smith R & Mayers MR, 1944).
Serious eye damage/irritation	Eye Irritation, Category 2: Causes serious eye irritation.
Tetrahydrofuran:	No data. EU Harmonised Classification.
Polyglycidyl Ether of Phenol-Formaldehyde:	No data. EU classification and labelling inventory
Ethyl methyl ketone:	Test Result: Irritating to eyes. (OECD 405)
Respiratory or skin sensitization	Skin Sensitisation, Category 1: May cause an allergic skin reaction.
Polyglycidyl Ether of Phenol-Formaldehyde:	Allergic contact dermatitis (Pontén, A et al, 1999)
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Carcinogen, Category 2: Suspected of causing cancer.
Tetrahydrofuran:	Test Result: NOAEC 1800 ppm Suspected carcinogen (Unnamed, 1998)
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT - single exposure	Specific target organ toxicity - single exposure, Category 3: May cause respiratory irritation. May cause drowsiness or dizziness.
Tetrahydrofuran:	Test Result: Central nervous depression (Malley, L.A. et al, 2001)
Ethyl methyl ketone:	Rats at all dose levels: gait and/or posture abnormalities. Higher dose groups
	some rats were comatose or prostrate within a few hours of dosing, with some
	animals being unconscious for 24 hours. (OECD 423)
STOT - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.
Information on likely routes of exposure	
Inhalation	Possible – accidental exposure.
Ingestion	Unlikely – accidental exposure.
Skin Contact	Possible – accidental exposure.
Eye Contact	Possible – accidental exposure.
Early onset symptoms related to exposure	Causes irritation to skin and eyes. Harmful if swallowed.
Delayed health effects from exposure	Suspected to causing cancer.
Other information	
NTP Report on Carcinogens	Not listed.
IARC Monographs	Not listed.
OSHA Designated Carcinogen	Not listed.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Polyglycidyl Ether of Phenol-Formaldehyde: Persistence and degradability Bioaccumulative potential Aquatic Chronic 2; Toxic to aquatic life with long lasting effects. Estimated Mixture LC50 > 1 to \leq 10 mg/l. (Fish) EC50 1.6 mg/l 48hr (Daphnia magna) (Wyness LE et al, 1993) Part of the components are poorly biodegradable. The product has low potential for bioaccumulation.

ACCORDING TO OSHA HCS (29 CFR 1910.1200)



Mobility in soil Other adverse effects The product is predicted to have high mobility in soil. None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of this material and its container as hazardous waste. Send after pretreatment to a appropriate hazardous waste incinerator facility according to legislation. Send after pre-treatment to a appropriate hazardous waste incinerator facility according to legislation.

Additional Information

Dispose of contents in accordance with local, state or national regulations.

SECTION 14: TRANSPORT INFORMATION

UN number UN proper shipping name	ADR/RID UN 1133 ADHESIVES containing flammable liquid	IMDG UN 1133 ADHESIVES containing flammable liquid	IATA UN 1133 ADHESIVES containing flammable liquid
Transport hazard class(es)	3	3	3
Packing group	II	II	II
Environmental hazards	Environmentally hazardous substance	Classified as a Marine Pollutant.	Environmentally hazardous substance
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.		
Special precautions for user	See Section: 2		

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislati US Federal Regulations	ion specific for the substance or mixture
TSCA (Toxic Substance Control Act)	Tetrahydrofuran - Subject to 25,000 lb reporting threshold. Ethyl methyl ketone - Subject to 25,000 lb reporting threshold.
EPCRA/SARA Section 302 Extremely Hazardous Substances	Not listed.
EPCRA Section 313 Toxics Release Inventory (TRI) Program	Not listed.
NIOSH Occupational Carcinogen List	Not listed.
OSHA List of highly hazardous chemicals, toxics and reactives	Not listed.
NTP Report on Carcinogens (RoC) List	Not listed.
Poison Prevention Packaging Act	Not listed.
US State Regulations	
California State, Proposition 65 List	Not listed.
California State, Safer Consumer Products Regulations	Tetrahydrofuran - Initial Candidate Chemicals List, Group Member List: Polychlorinated dibenzo-p-furans (PCDFs) and Furan Compounds. Ethyl methyl ketone- Candidate Chemcials List.
Maine State, Toxic Chemicals in Children's Products Act	Not listed.
New Jersey State Worker and Community RTK Act	Tetrahydrofuran - RTKHSL and SHHSL.
	Ethyl methyl ketone - RTKHSL and SHHSL.
Pennsylvania State, Worker and Community RTK Act	Tetrahydrofuran - Hazardous Substances List and the Environmental Hazard List.
	Ethyl methyl ketone - Hazardous Substances List and the Environmental Hazard List.
Rhode Island State, Hazardous Substances RTK Act	Tetrahydrofuran - Hazardous Substances List.
	Ethyl methyl ketone - Hazardous Substances List.
Non-Regional	
IARC Monographs, List of Classifications	Not listed.

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SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: New SDS Regulation compliant with HazCom 2012 format, all sections have been updated to include new information. Please review SDS with care.

Version	4.0
Revision Date	27-Apr-2017
Date of First Issue	20-Mar-2017

References:

Existing Safety Data Sheet (SDS), EU Data: Harmonised Classification(s) for Tetrahydrofuran (CAS No. 109-99-9) and Ethyl methyl ketone (CAS No. 78-93-3). Existing ECHA registration(s) for Tetrahydrofuran (CAS No. 109-99-9), Ethyl methyl ketone (CAS No. 78-93-3), the Classification and Labelling Inventory for Polyglycidyl Ether of Phenol-Formaldehyde (CAS No. 28064-14-4).

Literature References:

- 1. Smith R & Mayers MR, 1944, Study of poisoning and fire hazards of butanone and acetone, Industrial Hygiene: 23, 174-176
- 2. Pontén, A. and Bruze, M. (1999), Occupational allergic contact dermatitis from epoxy resins based on bisphenol F. Contact Dermatitis, 41: 235. doi:10.1111/j.1600-0536.1999.tb06149.x
- 3. Malley, L.A., Christoph G.R., Stadler, J.C., Hansen, J.F., Biesemeir, J.A. and Jasti, S., 2001, Acute and subchronic neurotoxicology evaluation of tetrahydrofuran by inhalation in rats, Drug Chem. Toxicol., 24(3): 201-219
- 4. Wyness LE, Cheeman H, Lad DD and Baldwin MK (1993), EPIKOTE 862: Acute toxicity to Oncorhunchus mykiss, Daphnia magna and Selenastrum capricornutum; SBGR.92.237

GHS Classification of the substance or mixture	Classification Procedure
Flammable Liquid, Category 2	Flash Point [Closed cup] Test Result/ Boiling Point
	(°C)Test Result
Acute toxicity, Category 4	Acute Toxicity Estimate (ATE) Calculation.
Skin Irritation, Category 2	Threshold Calculation
Skin Sensitisation, Category 1	Threshold Calculation
Eye Irritation, Category 2	Threshold Calculation
Specific target organ toxicity — single exposure, Category 3	Threshold Calculation
Carcinogen, Category 2	Threshold Calculation
Hazardous to the aquatic environment, Chronic, Category 2	Summation Calculation

LEGEND

ACGIH: American Conference of Governmental Industrial Hygienists	REL: Recommended exposure limit
BEI: Biological Exposure Indices (ACGIH)	SCL: Specific Concentration Limit
IARC: International Agency for Research on Cancer	Skin": Risk of overexposure via dermal contact
Irr: Irritation	STEL: Short Term Exposure Limit
NIOSH: National Institute of Occupational Safety and Health	TLV: Threshold Limit value
NTP: National Toxicology Program	TSCA: Toxic Substance Control Act
OSHA: The Occupational Safety & Health Administration	TWA: Time Weighted Average
PBT: Persistent, Bioaccumulative and Toxic	URT: Upper respiratory tract
PEL: Permissible exposure limit	vPvB: very Persistent and very Bioaccumulative

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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