

8150 LT-25 LT-25 RESIN SUPERIOR MANUFACTURING

Version No: 6.7

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date:
05/27/2020Print Date:
05/27/2020

S.GHS.USA.EN

SECTION 1 IDENTIFICATION

Product Identifier

Product name	8150 LT-25 RESIN
Synonyms	Not Available
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (contains nonylphenol)
Other means of identification	Not Available

Recommended use of the chemical and restrictions on use

Relevant identified uses	RESIN
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Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	Superior Manufacturing
Address	4520 Glenmeade Lane, Auburn Hills, MI 48326
Telephone	866.523.5677
Fax	Not Available
Website	Ordersuperior.com
Email	info@ordersuperior.com

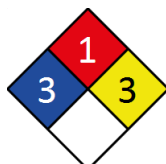
Emergency phone number

Association / Organization	Chemtrec
Emergency telephone numbers	1-800-424-9300
Other emergency telephone numbers	Not Available

SECTION 2 HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification	Skin Corrosion/Irritation Category 1B, Serious Eye Damage Category 1, Skin Sensitizer Category 1, Carcinogenicity Category 2, Reproductive Toxicity Category 2, Acute Aquatic Hazard Category 2, Chronic Aquatic Hazard Category 2
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Label elements

Hazard pictogram(s)	
SIGNAL WORD	DANGER

Hazard statement(s)

H314	Causes severe skin burns and eye damage.
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H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H411	Toxic to aquatic life with long lasting effects.

Hazard(s) not otherwise specified

Not Applicable

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.

Precautionary statement(s) Response

P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Precautionary statement(s) Storage

P405	Store locked up.
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Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**Substances**

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
61788-97-4	60-80	<u>epoxy resin, unspecified</u>
8052-41-3.	0.3-0.59	<u>Stoddard Solvent</u>
108-65-6	0.01-0.05	<u>propylene glycol monomethyl ether acetate, alpha-isomer *</u>
25154-52-3	6-7	<u>nonylphenol</u>
68609-97-2	17-19	<u>(C12-14)alkylglycidyl ether</u>

SECTION 4 FIRST-AID MEASURES**Description of first aid measures**

Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ Immediately hold eyelids apart and flush the eye continuously with running water. ▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. ▶ Transport to hospital or doctor without delay. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	<p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> ▶ Immediately flush body and clothes with large amounts of water, using safety shower if available. ▶ Quickly remove all contaminated clothing, including footwear. ▶ Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. ▶ Transport to hospital, or doctor.
Inhalation	<ul style="list-style-type: none"> ▶ If fumes or combustion products are inhaled remove from contaminated area. ▶ Lay patient down. Keep warm and rested. ▶ Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ▶ Transport to hospital, or doctor.

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Ingestion	<ul style="list-style-type: none"> ▶ For advice, contact a Poisons Information Centre or a doctor at once. ▶ Urgent hospital treatment is likely to be needed. ▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Transport to hospital or doctor without delay.
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Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIRE-FIGHTING MEASURES**Extinguishing media**

- ▶ Foam.
- ▶ Dry chemical powder.

Special hazards arising from the substrate or mixture

Fire Incompatibility	▶ Avoid contamination with oxidizing agents i.e. nitrates, oxidizing acids, chlorine bleaches, pool chlorine etc. as ignition may result
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Special protective equipment and precautions for fire-fighters

Fire Fighting	▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear full body protective clothing with breathing apparatus.
Fire/Explosion Hazard	<ul style="list-style-type: none"> ▶ Combustible. ▶ Slight fire hazard when exposed to heat or flame. Combustion products include: <ul style="list-style-type: none"> , carbon dioxide (CO₂) , other pyrolysis products typical of burning organic material.

SECTION 6 ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	Environmental hazard - contain spillage. <ul style="list-style-type: none"> ▶ Clean up all spills immediately. ▶ Avoid breathing vapors and contact with skin and eyes.
Major Spills	Environmental hazard - contain spillage. Moderate hazard. <ul style="list-style-type: none"> ▶ Clear area of personnel and move upwind.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE**Precautions for safe handling**

Safe handling	<ul style="list-style-type: none"> ▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ DO NOT allow clothing wet with material to stay in contact with skin
Other information	<ul style="list-style-type: none"> ▶ Store in original containers. ▶ Keep containers securely sealed.

Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ▶ Metal can or drum ▶ Packaging as recommended by manufacturer. ▶ Check all containers are clearly labelled and free from leaks.
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Storage incompatibility

Epoxides:

- ▶ are highly reactive with acids, bases, and oxidizing and reducing agents.
- ▶ react, possibly violently, with anhydrous metal chlorides, ammonia, amines and group 1 metals.

Glycidyl ethers:

- ▶ may form unstable peroxides on storage in air, light, sunlight, UV light or other ionizing radiation, trace metals - inhibitor should be maintained at adequate levels ▶ may polymerase in contact with heat, organic and inorganic free radical producing initiators ▶ may polymerase with evolution of heat in contact with oxidizers, strong acids, bases and amines
- ▶ react violently with strong oxidizers, permanganates, peroxides, acyl halides, alkalis, ammonium persulfate, bromine dioxide
- ▶ attack some forms of plastics, coatings, and rubber
- ▶ Avoid reaction with oxidizing agents


SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**Control parameters****OCCUPATIONAL EXPOSURE LIMITS (OEL)****INGREDIENT DATA**

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US NIOSH Recommended Exposure Limits (RELs)	Stoddard Solvent	Dry cleaning safety solvent, Mineral spirits, Petroleum solvent, Spotting naphtha [Note: A refined petroleum solvent with a flash point of 102-110°F, boiling point of 309-396°F, and containing >65% C10 or higher hydrocarbons.]	350 mg/m3	Not Available	1800 mg/m3	[15-minute]
US ACGIH Threshold Limit Values (TLV)	Stoddard Solvent	Stoddard solvent	100 ppm	Not Available	Not Available	TLV® Basis: Eye, skin, & kidney dam; nausea; CNS impair
US OSHA Permissible Exposure Levels (PELs) - Table Z1	Stoddard Solvent	Stoddard solvent	500 ppm / 2900 mg/m3	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Stoddard Solvent	Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene)	300 mg/m3	1,800 mg/m3	29500 mg/m3
propylene glycol monomethyl ether acetate, alpha-isomer	Propylene glycol monomethyl ether acetate, alpha-isomer; (1-Methoxypropyl-2-acetate)	Not Available	Not Available	Not Available
nonylphenol	Nonyl phenol (mixed isomers)	2.5 mg/m3	27 mg/m3	110 mg/m3
nonylphenol	Nonyl phenol, 4- (branched)	0.2 mg/m3	2.3 mg/m3	260 mg/m3
Ingredient	Original IDLH	Revised IDLH		
epoxy resin, unspecified	Not Available	Not Available		
Stoddard Solvent	20000 mg/m3	Not Available		
propylene glycol monomethyl ether acetate, alpha-isomer	Not Available	Not Available		
nonylphenol	Not Available	Not Available		
(C12-14)alkylglycidyl ether	Not Available	Not Available		

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.
Personal protection	
Eye and face protection	<ul style="list-style-type: none"> ◦ Chemical goggles. ◦ Full face shield may be required for supplementary but never for primary protection of eyes.
Skin protection	See Hand protection below
Hands/feet protection	<ul style="list-style-type: none"> ◦ When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots. <p>NOTE:</p> <ul style="list-style-type: none"> ◦ The material may produce skin sensitization in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.</p> <ul style="list-style-type: none"> ◦ When handling liquid-grade epoxy resins wear chemically protective gloves (e.g nitrile or nitrile-butadiene rubber), boots and aprons. ◦ DO NOT use cotton or leather (which absorb and concentrate the resin), polyvinyl chloride, rubber or polyethylene gloves (which absorb the resin).

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Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> • Overalls. • P.V.C.

Respiratory protection

Cartridge respirators should never be used for emergency ingress or in areas of unknown vapor concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odors through the respirator. The odor may indicate that the mask is not functioning properly, that the vapor concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Appearance	Family of products which vary in their physical properties as a result of variations in production. Data presented here is for typical family member.		
Physical state	Liquid	Relative density (Water = 1)	Not Available
Odor	Not Available	Partition coefficient n-octanol / water	Not Available
Odor threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidizing properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapor pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Available
Vapor density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> • Unstable in the presence of incompatible materials. • Product is considered stable.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION**Information on toxicological effects**

Inhaled	The material has NOT been classified by EC Directives or other classification systems as "harmful by inhalation" nor has it been designated as "irritating to the respiratory system". This is because of the lack of corroborating animal or human evidence.
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Ingestion	<p>The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion. The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.</p> <p>High molecular weight material; on single acute exposure would be expected to pass through gastrointestinal tract with little change / absorption. Occasionally accumulation of the solid material within the alimentary tract may result in formation of a bezoar (concretion), producing discomfort.</p>	
Skin Contact	<p>The material can produce chemical burns following direct contact with the skin. Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.</p> <p>Open cuts abraded, or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream, though, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>	
Eye	<p>The material can produce chemical burns to the eye following direct contact. Vapors or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage.</p>	
Chronic	<p>For some reactive diluents, prolonged or repeated skin contact may result in absorption of potentially harmful amounts or allergic skin reactions. Exposure to some reactive diluents (notably, neopentylglycol diglycidyl ether, CAS RN: 17557-23-2) has caused cancer in some animal testing. Glycidyl ethers can cause genetic damage and cancer.</p> <p>The epoxide group is an alkylating agent and thus destroys nucleotides within the cell. This may cause cancer.</p>	
8150 LT-25 RESIN	TOXICITY	IRRITATION
	Not Available	Not Available
epoxy resin, unspecified	TOXICITY	IRRITATION
	Not Available	Not Available
Stoddard Solvent	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >1900 mg/kg ^[1]	Eye (hmn) 470 ppm/15m irrit.
	Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye (rabbit) 500 mg/24h moderate
	Inhalation (rat) LC50: >2796.8052 mg/l/6h ^[2]	
	Oral (rat) LD50: >4500 mg/kg ^[1]	
	Oral (rat) LD50: >5000 mg/kg ^[1]	
propylene glycol monomethyl ether acetate, alpha-isomer	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Not Available
	Inhalation (rat) LC50: 6510.0635325 mg/l/6h ^[2]	
	Oral (rat) LD50: >5000 mg/kg ^[1]	
nonylphenol	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 2140 mg/kg ^[2]	Eye (rabbit): 0.5 mg (open)-SEVERE
	Oral (rat) LD50: 580 mg/kg ^[2]	Skin (rabbit): 500 mg(open)-mod
		Skin(rabbit):10mg/24h(open)-SEVERE
(C12-14)alkylglycidyl ether	TOXICITY	IRRITATION
	Oral (rat) LD50: >10000 mg/kg ^[2]	Eye (rabbit): mild [Ciba]
		Skin (guinea pig): sensitiser
		Skin (human): Irritant
		Skin (human): non- sensitiser
		Skin (rabbit): moderate
		Skin: Moderate

Legend: 1 Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

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8150 LT-25 RESIN	Oxiranes (including glycidyl ethers and alkyl oxides, and epoxides) share many common characteristics with respect to animal toxicology. One such oxirane is ethyloxirane; data presented here may be taken as representative. In animal testing, ethyloxirane increased the incidence of tumors of the airways in animals exposed via inhalation. However, tumors were not observed in mice chronically exposed via skin.
EPOXY RESIN, UNSPECIFIED	No significant acute toxicological data identified in literature search.
STODDARD SOLVENT	For petroleum: This product contains benzene, which can cause acute myeloid leukaemia, and n-hexane, which can be metabolized to compounds which are toxic to the nervous system. This product contains toluene, and animal studies suggest high concentrations of toluene lead to hearing loss.
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE, ALPHA-ISOMER	Typical propylene glycol ethers include propylene glycol n-butyl ether (PnB); dipropylene glycol n-butyl ether (DPnB); dipropylene glycol methyl ether acetate (DPMA) and tripropylene glycol methyl ether (TPM). Testing of a wide variety of propylene glycol ethers has shown that propylene glycol-based ethers are less toxic than some ethers of the ethylene series. Animal testing shows that high concentrations (for example, 0.5%) are associated with birth defects but lower exposures have not been shown to cause adverse effects. The beta isomer of PGMEA comprises only 10% of the commercial material; the remaining 90% is alpha isomer. A BASF report (in ECETOC) showed that inhalation exposure to 545 ppm PGMEA (beta isomer) was associated with a teratogenic response in rabbits; but exposure to 145 ppm and 36 ppm had no adverse effects. The beta isomer of PGMEA comprises only 10% of the commercial material, the remaining 90% is alpha isomer. Hazard appears low but emphasizes the need for care in handling this chemical. *Shin-Etsu SDS
NONYLPHENOL	Animal testing suggests that repeated exposure to nonylphenol may cause liver changes and kidney dysfunction. Nonylphenol was not found to cause mutations or chromosomal aberrations. These substances are intravenous anaesthetic agents. They have a very low level of acute toxicity; they may cause skin irritation. Repeated exposure may irritate the stomach.
8150 LT-25 RESIN & EPOXY RESIN, UNSPECIFIED & (C12-14) ALKYLGLYCIDYL ETHER	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema.
8150 LT-25 RESIN & EPOXY RESIN, UNSPECIFIED	The chemical structure of hydroxylated diphenylalkanes or bisphenols consists of two phenolic rings joined together through a bridging carbon. This class of endocrine disruptors that mimic oestrogens is widely used in industry, particularly in plastics Bisphenol A (BPA) and some related compounds exhibit oestrogenic activity in human breast cancer cell line MCF-7, but there were remarkable differences in activity.
8150 LT-25 RESIN & NONYLPHENOL	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound.
Acute Toxicity	Carcinogenicity ✓
Skin Irritation/Corrosion	Reproductivity
Serious Eye Damage/Irritation	STOT - Single Exposure
Respiratory or Skin sensitization ✓	STOT - Repeated Exposure ⊘
Mutagenicity	Aspiration Hazard

Legend: ✗ – Data available but does not fill the criteria for classification
 ✓ – Data available to make classification
 ⊘ – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

8150 LT-25 RESIN					
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	NotNotNot	Not AvailableNot Available			

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Available Available Available					
epoxy resin, unspecified	Not Available				
	Not Available				
	Available Available Available				
ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE	
Not Available	Not Available				
Available Available Available					
Stoddard Solvent	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	2.2mg/L	4
	NOEC	3072	Fish	=1mg/L	1
propylene glycol monomethyl ether acetate, alpha-isomer	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	=100mg/L	1
	EC50	48	Crustacea	=408mg/L	1
	EC0	24	Crustacea	=500mg/L	1
	NOEC	336	Fish	47.5mg/L	2
nonylphenol	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	0.00095mg/L	4
	EC50	48	Crustacea	0.104mg/L	4
	EC50	96	Algae or other aquatic plants	0.027mg/L	1
	BCF	504	Fish	0.081mg/L	4
	EC20	96	Fish	0.075mg/L	4
(C12-14)alkylglycidyl ether	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE

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NotNotNot	Not AvailableNot Available AvailableAvailableAvailable		
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Legend: —Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite - V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high-water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

For bisphenol A and related bisphenols:

Environmental fate:

Biodegradability (28 d) 89% - Easily biodegradable

Bioconcentration factor (BCF) 7.8 mg/l

Bisphenol A, its derivatives and analogues, can be released from polymers, resins and certain substances by metabolic products

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII

As an environmental contaminant, bisphenol A interferes with nitrogen fixation at the roots of leguminous plants associated with the bacterial symbiont *Sinorhizobium meliloti*.

Despite a half-life in the soil of only 1-10 days, its ubiquity makes it an important pollutant.

Significant environmental findings are limited. Oxiranes (including glycidyl ethers and alkyl oxides, and epoxides) exhibit common characteristics with respect to environmental fate and ecotoxicology.

For 1,2-Butylene oxide (Ethylloxirane):

log Kow values of 0.68 and 0.86. BAF and BCF: 1 to 17 L./kg.

For Alkylphenols and their Ethoxylates, or Propoxylates (APE):

Environmental fate: Alkylphenols are found everywhere in the environmental, when released. Releases are generally as wastes; they are extensively used throughout industry and in the home. **DO NOT discharge into sewer or waterways.**

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
propylene glycol monomethyl ether acetate, alpha-isomer	LOW	LOW
nonylphenol	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
Stoddard Solvent	LOW (BCF = 159)
propylene glycol monomethyl ether acetate, alpha-isomer	LOW (LogKOW = 0.56)
nonylphenol	LOW (BCF = 271)

Mobility in soil

Ingredient	Mobility
propylene glycol monomethyl ether acetate, alpha-isomer	HIGH (KOC = 1.838)
nonylphenol	LOW (KOC = 56010)



SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> ⓘ Containers may still present a chemical hazard/ danger when empty. ⓘ Return to supplier for reuse/ recycling if possible. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. DO NOT allow wash water from cleaning or process equipment to enter drains. ⓘ It may be necessary to collect all wash water for treatment before disposal. ⓘ Recycle wherever possible or consult manufacturer for recycling options. ⓘ Consult State Land Waste Authority for disposal.
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SECTION 14 TRANSPORT INFORMATION

Labels Required

	
Marine Pollutant	

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Land transport (DOT)

UN number	3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (contains nonylphenol)
Transport hazard class(es)	Class : 9 Subrisk : Not Applicable
Packing group	III
Environmental hazard	Environmentally hazardous
Special precautions for user	Hazard Label : 9 Special provisions : 8, 146, 173, 335, IB3, T4, TP1, 29

Air transport (ICAO-IATA / DGR)

UN number	3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. * (contains nonylphenol)
Transport hazard class(es)	ICAO/IATA Class : 9 ICAO / IATA Subrisk : Not Applicable ERG Code : 9L
Packing group	III
Environmental hazard	Environmentally hazardous
Special precautions for user	Special provisions : A97 A158 A197 Cargo Only Packing Instructions : 964 Cargo Only Maximum Qty / Pack : 450L Passenger and Cargo Packing Instructions : 964 Passenger and Cargo Maximum Qty / Pack : 450L Passenger and Cargo Limited Quantity Packing Instructions : Y964 Passenger and Cargo Limited Maximum Qty / Pack : 30 kg G

Sea transport (IMDG-Code / GGVSee)

UN number	3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains nonylphenol)
Transport hazard class(es)	IMDG Class : 9 IMDG Subrisk : Not Applicable
Packing group	III
Environmental hazard	Marine Pollutant
Special precautions for user	EMS Number : F-A , S-F Special provisions : 274 335 969 Limited Quantities : 5 L

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION**Safety, health and environmental regulations / legislation specific for the substance or mixture****EPOXY RESIN, UNSPECIFIED (61788-97-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Not Applicable

STODDARD SOLVENT (8052-41-3.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

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International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs	US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants
	US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants
	US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants
US - California Permissible Exposure Limits for Chemical Contaminants	US - Washington Permissible exposure limits of air contaminants
US - Alaska Limits for Air Contaminants	US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants
US - California Proposition 65 - Carcinogens	US ACGIH Threshold Limit Values (TLV)
US - Hawaii Air Contaminant Limits	US ACGIH Threshold Limit Values (TLV) - Carcinogens
US - Idaho - Limits for Air Contaminants	US National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens
US - Massachusetts - Right To Know Listed Chemicals	US NIOSH Recommended Exposure Limits (RELs)
US - Michigan Exposure Limits for Air Contaminants	US OSHA Permissible Exposure Levels (PELs) - Table Z1
US - Minnesota Permissible Exposure Limits (PELs)	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US - Oregon Permissible Exposure Limits (Z-1)	US TSCA Chemical Substance Inventory - Interim List of Active Substances
US - Pennsylvania - Hazardous Substance List	
US - Rhode Island Hazardous Substance List	

PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE, ALPHA-ISOMER (108-65-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - California OEHHA/ARB - Acute Reference Exposure Levels and Target Organs (RELS)	US Clean Air Act - Hazardous Air Pollutants
US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs	
US - California Permissible Exposure Limits for Chemical Contaminants (CRELs)	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
	US EPCRA Section 313 Chemical List
	US TSCA Chemical Substance Inventory - Interim List of Active Substances
US - Pennsylvania - Hazardous Substance List	
US AIHA Workplace Environmental Exposure Levels (WEELs)	

NONYLPHENOL (25154-52-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Massachusetts - Right To Know Listed Chemicals	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US - Pennsylvania - Hazardous Substance List	US TSCA Chemical Substance Inventory - Interim List of Active Substances
US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants	US TSCA Section 12(b) - List of Chemical Substances Subject to Export Notification Requirements
US EPCRA Section 313 Chemical List	US TSCA Section 4/12 (b) - Sunset Dates/Status
US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule	US TSCA Section 5(a)(2) - Significant New Use Rules (SNURs)

(C12-14) ALKYLGLYCIDYL ETHER(68609-97-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory	US TSCA Section 4/12 (b) - Sunset Dates/Status
US TSCA Chemical Substance Inventory - Interim List of Active Substances	

Federal Regulations**Superfund Amendments and Reauthorization Act of 1986 (SARA)****SECTION 311/312 HAZARD CATEGORIES**

Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	Yes
Acute toxicity (any route of exposure)	No
Reproductive toxicity	Yes

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Simple Asphyxiant	No
US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)	
Skin Corrosion or Irritation	Yes
Respiratory or Skin Sensitization	Yes
Serious eye damage or eye irritation	Yes
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No

None Reported

State Regulations**US. CALIFORNIA PROPOSITION 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm

US - CALIFORNIA PROPOSITION 65 - CARCINOGENS & REPRODUCTIVE TOXICITY (CRT): LISTED SUBSTANCE

Soots, tars, and mineral oils (untreated and mildly treated oils and used engine oils) Listed

National Inventory	Status
Australia - AICS	N (epoxy resin, unspecified)
Canada - DSL	N (epoxy resin, unspecified)
Canada - NDSL	N (propylene glycol monomethyl ether acetate, alpha-isomer; epoxy resin, unspecified; (C12-14)alkylglycidyl ether; Stoddard Solvent; nonylphenol)
China - IECSC	N (epoxy resin, unspecified)
Europe - EINEC / ELINCS / NLP	N (epoxy resin, unspecified)
Japan - ENCS	N (epoxy resin, unspecified; (C12-14)alkylglycidyl ether)
Korea - KECI	N (epoxy resin, unspecified)
New Zealand - NZIoC	N (epoxy resin, unspecified)
Philippines - PICCS	N (epoxy resin, unspecified)
USA - TSCA	N (epoxy resin, unspecified)
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Revision Date	06/05/2018
Initial Date	06/06/2018

CONTACT POINT

PLEASE NOTE THAT TITANIUM DIOXIDE IS NOT PRESENT IN CLEAR OR NEUTRAL BASES

Other information**Ingredients with multiple cas numbers**

Name	CAS No
Stoddard Solvent	8052-41-3., 64742-47-8
propylene glycol monomethyl ether acetate, alpha-isomer	108-65-6, 84540-57-8, 142300-82-1
nonylphenol	25154-52-3, 84852-15-3, 139-84-4, 136-83-4

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
 PC—STEL: Permissible Concentration-Short Term Exposure Limit
 IARC: International Agency for Research on Cancer
 ACGIH: American Conference of Governmental Industrial Hygienists

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- STEL: Short Term Exposure Limit
- TEEL: Temporary Emergency Exposure Limit,
- IDLH: Immediately Dangerous to Life or Health Concentrations
- OSF: odor Safety Factor
- NOAEL: No Observed Adverse Effect Level
- LOAEL: Lowest Observed Adverse Effect Level
- TLV: Threshold Limit Value
- LOD: Limit of Detection
- OTV: Odor Threshold Value
- BCF: BioConcentration Factors
- BEI: Biological Exposure Index

Powered by Authorities, from Chemwatch.

8150 LT-25 HARDENER

SUPERIOR MANUFACTURING

Version No: 2.1

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date:

05/27/2020

Print Date:

05/27/2020

S.GHS.USA.EN

SECTION 1 IDENTIFICATION

Product Identifier

Product name	8150 LT-25 HARDENER
Synonyms	Not Available
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Other means of identification	Not Available

Recommended use of the chemical and restrictions on use

Relevant identified uses	
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Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	Superior Manufacturing
Address	4520 Glenmeade Lane, Auburn Hills, MI 48326
Telephone	866.523.5677
Fax	Not Available
Website	Ordersuperior.com
Email	info@ordersuperior.com

Emergency phone number

Association / Organization	Chemtrec
Emergency telephone numbers	1-800-424-9300
Other emergency telephone numbers	Not Available

SECTION 2 HAZARD(S) IDENTIFICATION

Classification of the substance or mixture



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification	Acute Toxicity (Oral) Category 3, Acute Toxicity (Dermal) Category 4, Acute Toxicity (Inhalation) Category 2, Skin Corrosion/Irritation Category 1B, Serious Eye Damage Category 1, Skin Sensitizer Category 1, Germ cell mutagenicity Category 1B, Carcinogenicity Category 2, Reproductive Toxicity Category 2, Acute Aquatic Hazard Category 1, Chronic Aquatic Hazard Category 1
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Label elements

Hazard pictogram(s)	
SIGNAL WORD	DANGER

Hazard statement(s)

H301	Toxic if swallowed.
H312	Harmful in contact with skin.
H330	Fatal if inhaled.

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H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H340	May cause genetic defects.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H410	Very toxic to aquatic life with long lasting effects.

Hazard(s) not otherwise specified

Not Applicable

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.

Precautionary statement(s) Response

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Precautionary statement(s) Storage

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**Substances**

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
30940-67-1	1-99	<u>4-tert-butylphenol/ 4-tert-octylphenol/ formaldehyde</u>
63738-22-7	1-99	<u>N,N,N',N'-tetraglycidyl-m-xylenediamine</u>
3236-54-2	1-99	<u>2,4,4-trimethylhexamethylene diamine</u>
25154-52-3	1-99	<u>nonylphenol</u>

SECTION 4 FIRST-AID MEASURES**Description of first aid measures**

Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> • Immediately hold eyelids apart and flush the eye continuously with running water. • Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. • Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. • Transport to hospital or doctor without delay. • Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. For amines: <ul style="list-style-type: none"> • If liquid amines come in contact with the eyes, irrigate immediately and continuously with low pressure flowing water, preferably from an eye wash fountain, for 15 to 30 minutes. • For more effective flushing of the eyes, use the fingers to spread apart and hold open the eyelids. The eyes should then be "rolled" or moved in all directions. • Seek immediate medical attention, preferably from an ophthalmologist.
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Skin Contact	<p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> ◦ Immediately flush body and clothes with large amounts of water, using safety shower if available. ◦ Quickly remove all contaminated clothing, including footwear. ◦ Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. ◦ Transport to hospital, or doctor. <p>For amines:</p> <ul style="list-style-type: none"> ◦ In case of major exposure to liquid amine, promptly remove any contaminated clothing, including rings, watches, and shoe, preferably under a safety shower. ◦ Wash skin for 15 to 30 minutes with plenty of water and soap. Call a physician immediately. ◦ Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective than normal laundering. ◦ Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.
	<ul style="list-style-type: none"> ◦ Discard contaminated leather articles such as shoes, belts, and watchbands. ◦ Note to Physician: Treat any skin burns as thermal burns. After decontamination, consider the use of cold packs and topical antibiotics.
Inhalation	<ul style="list-style-type: none"> ◦ If fumes or combustion products are inhaled remove from contaminated area. ◦ Lay patient down. Keep warm and rested. ◦ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ◦ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ◦ Transport to hospital, or doctor, without delay. <p>For amines:</p> <ul style="list-style-type: none"> ◦ All employees working in areas where contact with amine catalysts is possible should be thoroughly trained in the administration of appropriate first aid procedures. ◦ Experience has demonstrated that prompt administration of such aid can minimize the effects of accidental exposure. ◦ Promptly move the affected person away from the contaminated area to an area of fresh air. ◦ Keep the affected person calm and warm, but not hot. ◦ If breathing is difficult, oxygen may be administered by a qualified person. ◦ If breathing stops, give artificial respiration. Call a physician at once.
Ingestion	<ul style="list-style-type: none"> ◦ For advice, contact a Poisons Information Centre or a doctor at once. ◦ Urgent hospital treatment is likely to be needed. ◦ If swallowed do NOT induce vomiting. ◦ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ◦ Observe the patient carefully. ◦ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ◦ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ◦ Transport to hospital or doctor without delay. <p>For amines:</p> <ul style="list-style-type: none"> ◦ If liquid amine are ingested, have the affected person drink several glasses of water or milk. ◦ Do not induce vomiting. ◦ Immediately transport to a medical facility and inform medical personnel about the nature of the exposure. The decision of whether to induce vomiting should be made by an attending physician.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

For acute or short-term repeated exposures to highly alkaline materials:

- Respiratory stress is uncommon but present occasionally because of soft tissue edema.
- Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.
- Oxygen is given as indicated.
- The presence of shock suggests perforation and mandates an intravenous line and fluid administration.
- Damage due to alkaline corrosives occurs by liquefaction necrosis whereby the saponification of fats and solubilization of proteins allow deep penetration into the tissue. Alkalis continue to cause damage after exposure.

INGESTION:

- Milk and water are the preferred diluents

No more than 2 glasses of water should be given to an adult.

- Neutralizing agents should never be given since exothermic heat reaction may compound injury. * Catharsis and emesis are absolutely contra-indicated.

* Activated charcoal does not absorb alkali.

* Gastric lavage should not be used.

Supportive care involves the following:

- Withhold oral feedings initially.
- If endoscopy confirms transmucosal injury start steroids only within the first 48 hours.
- Carefully evaluate the amount of tissue necrosis before assessing the need for surgical intervention.
- Patients should be instructed to seek medical attention whenever they develop difficulty in swallowing (dysphagia).

SKIN AND EYE:

- Injury should be irrigated for 20-30 minutes.

Eye injuries require saline. [Ellenhorn & Barceloux: Medical

Toxicology] For amines:

- Certain amines may cause injury to the respiratory tract and lungs if aspirated. Also, such products may cause tissue destruction leading to stricture. If lavage is performed, endotracheal and/or esophagoscopy control is suggested.
- No specific antidote is known.
- Care should be supportive and treatment based on the judgment of the physician in response to the reaction of the patient.

Laboratory animal studies have shown that a few amines are suspected of causing depletion of certain white blood cells and their precursors in lymphoid tissue. These effects may be due to an immunosuppressive mechanism.

Some persons with hyperreactive airways (e.g., asthmatic persons) may experience wheezing attacks (bronchospasm) when exposed to airway irritants.

Lung injury may result following a single massive overexposure to high vapour concentrations or multiple exposures to lower concentrations of any pulmonary irritant material.

Health effects of amines, such as skin irritation and transient corneal edema ("blue haze," "halo effect," "glaucompsia"), are best prevented by means of formal worker education, industrial hygiene monitoring, and exposure control methods. Persons who are highly sensitive to the triggering effect of non-specific irritants should not be assigned to jobs in which such agents are used, handled, or manufactured.

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Medical surveillance programs should consist of a pre-placement evaluation to determine if workers or applicants have any impairments (e.g., hyperreactive airways or bronchial asthma) that would limit their fitness for work in jobs with potential for exposure to amines. A clinical baseline can be established at the time of this evaluation.

Periodic medical evaluations can have significant value in the early detection of disease and in providing an opportunity for health counseling.

Medical personnel conducting medical surveillance of individuals potentially exposed to polyurethane amine catalysts should consider the following:

- Health history, with emphasis on the respiratory system and history of infections
- Physical examination, with emphasis on the respiratory system and the lymphoreticular organs (lymph nodes, spleen, etc.)
- Lung function tests, pre- and post-bronchodilator if indicated
- Total and differential white blood cell count
- Serum protein electrophoresis

Persons who are concurrently exposed to isocyanates also should be kept under medical surveillance.

Pre-existing medical conditions generally aggravated by exposure include skin disorders and allergies, chronic respiratory disease (e.g. bronchitis, asthma, emphysema), liver disorders, kidney disease, and eye disease.

Broadly speaking, exposure to amines, as characterized by amine catalysts, may cause effects similar to those caused by exposure to ammonia. As such, amines should be considered potentially injurious to any tissue that is directly contacted.

Inhalation of aerosol mists or vapors, especially of heated product, can result in chemical pneumonitis, pulmonary edema, laryngeal edema, and delayed scarring of the airway or other affected organs. There is no specific treatment.

Clinical management is based upon supportive treatment, similar to that for thermal burns.

Persons with major skin contact should be maintained under medical observation for at least 24 hours due to the possibility of delayed reactions.

Polyurethane Amine Catalysts: Guidelines for Safe Handling and Disposal Technical Bulletin June

2000 Alliance for Polyurethanes Industry Treat symptomatically.

For acute or short-term repeated exposures to phenols/ cresols:

- Phenol is absorbed rapidly through lungs and skin. [Massive skin contact may result in collapse and death] *
- [Ingestion may result in ulceration of upper respiratory tract; perforation of oesophagus and/or stomach, with attendant complications, may occur. Oesophageal stricture may occur.]* • An initial excitatory phase may present. Convulsions may appear as long as 18 hours after ingestion. Hypotension and ventricular tachycardia that require vasopressor and antiarrhythmic therapy, respectively, can occur.
- Respiratory arrest, ventricular dysrhythmias, seizures and metabolic acidosis may complicate severe phenol exposures, so the initial attention should be directed towards stabilisation of breathing and circulation with ventilation, intubation, intravenous lines, fluids and cardiac monitoring as indicated.
- [Vegetable oils retard absorption; do NOT use paraffin oils or alcohols. Gastric lavage, with endotracheal intubation, should be repeated until phenol odor is no longer detectable; follow with vegetable oil. A saline cathartic should then be given.]* ALTERNATIVELY: Activated charcoal (1g/kg) may be given. A cathartic should be given after oral activated charcoal. • Severe poisoning may require slow intravenous injection of methylene blue to treat methaemoglobinemia.
- [Renal failure may require haemodialysis.]*
- Most absorbed phenol is biotransformed by the liver to ethereal and glucuronide sulfates and is eliminated almost completely after 24 hours. [Ellenhorn and Barceloux: Medical Toxicology]

*[Union Carbide]

BIOLOGICAL EXPOSURE INDEX - BEI

These represent the determinants observed in specimens collected from a healthy worker who has been exposed to the Exposure Standard (ES or TLV):

Determinant	Index	Sampling Time	Comments
1. Total phenol in blood	250 mg/gm creatinine	End of shift	B, NS

B: Background levels occur in specimens collected from subjects **NOT** exposed

NS: Non-specific determinant; also seen in exposure to other materials

SECTION 5 FIRE-FIGHTING MEASURES

Extinguishing media

- Foam.
- Dry chemical powder.

Special hazards arising from the substrate or mixture

Fire Incompatibility	
	• Avoid contamination with oxidizing agents i.e. nitrates, oxidizing acids, chlorine bleaches, pool chlorine etc. as ignition may result

Special protective equipment and precautions for fire-fighters

Fire Fighting	<p>For amines:</p> <ul style="list-style-type: none"> • For firefighting, cleaning up large spills, and other emergency operations, workers must wear a self-contained breathing apparatus with full face-piece, operated in a pressure-demand mode. • Airline and air purifying respirators should not be worn for firefighting or other emergency or upset conditions. • Alert Fire Brigade and tell them location and nature of hazard. • Wear full body protective clothing with breathing apparatus.
Fire/Explosion Hazard	<ul style="list-style-type: none"> • Combustible. • Slight fire hazard when exposed to heat or flame. <p>Combustion products include: carbon dioxide (CO₂) nitrogen oxides (NO_x) other pyrolysis products typical of burning organic material.</p> <ul style="list-style-type: none"> • Powdered Phenolic resin is a combustible dust, and this means that it is capable of forming flammable and explosive dust clouds in air. Such dust clouds can be sensitive to low energy ignition.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

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Minor Spills	<p>Environmental hazard - contain spillage. for amines:</p> <ul style="list-style-type: none"> • If possible (i.e., without risk of contact or exposure), stop the leak. • Contain the spilled material by diking, then neutralize. • Clean up all spills immediately. • Avoid breathing vapors and contact with skin and eyes.
Major Spills	<p>Environmental hazard - contain spillage. For amines:</p> <ul style="list-style-type: none"> • First remove all ignition sources from the spill area. • Have firefighting equipment nearby, and have firefighting personnel fully trained in the proper use of the equipment and in the procedures used in fighting a chemical fire. • DO NOT touch the spill material <p>Moderate hazard.</p> <ul style="list-style-type: none"> • Clear area of personnel and move upwind.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	<ul style="list-style-type: none"> • Avoid all personal contact, including inhalation. • Wear protective clothing when risk of exposure occurs. • DO NOT allow clothing wet with material to stay in contact with skin
Other information	<ul style="list-style-type: none"> • Store in original containers. • Keep containers securely sealed.

Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> • DO NOT use aluminum, galvanized or tin-plated containers • Metal can or drum • Packaging as recommended by manufacturer. • Check all containers are clearly labelled and free from leaks.
Storage incompatibility	<ul style="list-style-type: none"> • Avoid strong acids, acid chlorides, acid anhydrides and chloroformates. • Violent reaction and fire may result when amine catalysts are exposed to, or mixed with, oxidizing agents such as perchlorates, nitrates, permanganates, chromates, nitric acid, halogens, peroxides, and some cleaning solutions containing acids. • The large amount of heat generated by the reaction of the catalyst with the oxidizing agent may be sufficient to cause vigorous boiling, which can cause the hot material to splash or splatter. • Reacts with aluminum / zinc producing flammable, explosive hydrogen gas <p>Epoxides:</p> <ul style="list-style-type: none"> • are highly reactive with acids, bases, and oxidizing and reducing agents. • react, possibly violently, with anhydrous metal chlorides, ammonia, amines and group 1 metals. • Phenols are incompatible with strong reducing substances such as hydrides, nitrides, alkali metals, and sulfides. • Avoid use of aluminum, copper and brass alloys in storage and process equipment. • Segregate from alcohol, water. • Avoid contact with copper, aluminum and their alloys. • Avoid reaction with oxidizing agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
nonylphenol	Nonyl phenol (mixed isomers)	2.5 mg/m3	27 mg/m3	110 mg/m3
nonylphenol	Nonyl phenol, 4- (branched)	0.2 mg/m3	2.3 mg/m3	260 mg/m3
Ingredient	Original IDLH	Revised IDLH		
4-tert-butylphenol/ tert-octylphenol/ formaldehyde	Not Available	Not Available		
N,N,N',N'-tetraglycidylm- xylenediamine	Not Available	Not Available		
2,4,4-trimethylhexamethylene diamine	Not Available	Not Available		
nonylphenol	Not Available	Not Available		


Exposure controls

Continued...

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Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.
Personal protection	
Eye and face protection	<ul style="list-style-type: none"> Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes. For amines: <p>SPECIAL PRECAUTION:</p> <ul style="list-style-type: none"> Because amines are alkaline materials that can cause rapid and severe tissue damage, wearing of contact lenses while working with amines is strongly discouraged. Wearing such lenses can prolong contact of the eye tissue with the amine, thereby causing more severe damage.
Skin protection	See Hand protection below
Hands/feet protection	<ul style="list-style-type: none"> Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots. <p>NOTE:</p> <ul style="list-style-type: none"> The material may produce skin sensitization in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
	<p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.</p> <p>For amines:</p> <ul style="list-style-type: none"> Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Neoprene gloves
Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> Overalls. P.V.C.

Respiratory protection

Type K-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Cartridge respirators should never be used for emergency ingress or in areas of unknown vapor concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odors through the respirator. The odor may indicate that the mask is not functioning properly, that the vapor concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

Where engineering controls are not feasible and work practices do not reduce airborne amine concentrations below recommended exposure limits, appropriate respiratory protection should be used. In such cases, air-purifying respirators equipped with cartridges designed to protect against amines are recommended.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Appearance	Not Available		
Physical state	Liquid	Relative density (Water = 1)	Not Available
Odor	Not Available	Partition coefficient n-octanol / water	Not Available
odor threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidizing properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapor pressure (kPa)	Not Available	Gas group	Not Available

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Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Available
Vapor density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	ⓘ Unstable in the presence of incompatible materials. ⓘ Product is considered stable.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION**Information on toxicological effects**

Inhaled	<p>Inhalation of vapors or aerosols (mists, fumes), generated by the material during the course of normal handling, may produce severely toxic effects; these may be fatal.</p> <p>Inhalation of epoxy resin amine hardeners (including polyamines and amine adducts) may produce bronchospasm and coughing episodes lasting several days after cessation of the exposure. Even faint traces of these vapors may trigger an intense reaction in individuals showing "amine asthma". Inhalation hazard is increased at higher temperatures.</p> <p>If phenols are absorbed via the lungs, systemic effects may occur affecting the cardiovascular and nervous systems. Inhalation can result in profuse perspiration, intense thirst, nausea, vomiting, diarrhoea, cyanosis, restlessness, stupor, falling blood pressure, hyperventilation, abdominal pain, anaemia, convulsions, coma, swelling and inflammation of the lung.</p> <p>Inhalation of amine vapors may cause irritation of the mucous membrane of the nose and throat, and lung irritation with respiratory distress and cough. Swelling and inflammation of the respiratory tract is seen in serious cases; with headache, nausea, faintness and anxiety.</p> <p>The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</p>				
Ingestion	<p>Toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 40 gram may be fatal or may produce serious damage to the health of the individual.</p> <p>The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion.</p> <p>Ingestion of amine epoxy-curing agents (hardeners) may cause severe abdominal pain, nausea, vomiting or diarrhoea. The vomitus may contain blood and mucous.</p> <p>Some phenol derivatives can cause damage to the digestive system. If absorbed, profuse sweating, thirst, nausea, vomiting, diarrhoea, cyanosis, restlessness, stupor, low blood pressure, gasping, abdominal pain, anaemia, convulsions, coma and lung swelling can happen followed by pneumonia.</p> <p>Amines without benzene rings when swallowed are absorbed throughout the gut. Corrosive action may cause damage throughout the gastrointestinal tract.</p>				
Skin Contact	<p>Skin contact with the material may produce toxic effects; systemic effects may result following absorption. The material can produce chemical burns following direct contact with the skin.</p> <p>Amine epoxy-curing agents (hardeners) may produce primary skin irritation and sensitization dermatitis in predisposed individuals. Cutaneous reactions include erythema, intolerable itching and severe facial swelling.</p> <p>Phenol and its derivatives can cause severe skin irritation if contact is maintained and can be absorbed to the skin affecting the cardiovascular and central nervous system. Effects include sweating, intense thirst, nausea and vomiting, diarrhoea, cyanosis, restlessness, stupor, low blood pressure, hyperventilation, abdominal pain, anaemia, convulsions, coma, lung swelling followed by pneumonia. Open cuts abraded, or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream, though, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>				
Eye	<p>The material can produce chemical burns to the eye following direct contact. Vapors or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage.</p> <p>Some phenol derivatives may produce mild to severe eye irritation with redness, pain and blurred vision. Permanent eye injury may occur; recovery may also be complete or partial.</p> <p>Vapors of volatile amines irritate the eyes, causing excessive secretion of tears, inflammation of the conjunctiva and slight swelling of the cornea, resulting in "halos" around lights. This effect is temporary, lasting only for a few hours.</p>				
Chronic	<p>There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.</p> <p>Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue.</p> <p>Skin contact with the material is more likely to cause a sensitization reaction in some persons compared to the general population.</p> <p>Based on experiments and other information, there is ample evidence to presume that exposure to this material can cause genetic defects that can be inherited. Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility.</p> <p>Long-term exposure to phenol derivatives can cause skin inflammation, loss of appetite and weight, weakness, muscle aches and pain, liver damage, dark urine, loss of nails, skin eruptions, diarrhoea, nervous disorders with headache, salivation, fainting, discoloration of the skin and eyes, vertigo and mental disorders, and damage to the liver and kidneys.</p> <p>This product contains a polymer with reactive functional groups (aldehydes and phenolics) regarded as being of moderate concern. Aldehydes are reactive, soluble and are highly irritating.</p> <p>The epoxide group is an alkylating agent and thus destroys nucleotides within the cell. This may cause cancer.</p>				
8150 LT-25 HARDENER	<table border="1"> <tr> <td>TOXICITY</td> <td>IRRITATION</td> </tr> <tr> <td>Not Available</td> <td>Not Available</td> </tr> </table>	TOXICITY	IRRITATION	Not Available	Not Available
TOXICITY	IRRITATION				
Not Available	Not Available				

Continued...

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4-tert-butylphenol/ 4-tert-octylphenol/ formaldehyde	TOXICITY	IRRITATION
	Not Available	Not Available
N,N,N',N'- tetraglycidylm- xylenediamine	TOXICITY	IRRITATION
	Oral (rat) LD50: 630 mg/kg ^[2]	Not Available
2,4,4- trimethylhexamethylene diamine	TOXICITY	IRRITATION
	Oral (rat) LD50: 910 mg/kg ^[2]	Eye (rabbit): CORROSIVE **
		Skin (rabbit): CORROSIVE **
nonylphenol	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 2140 mg/kg ^[2]	Eye (rabbit): 0.5 mg (open)-SEVERE
	Oral (rat) LD50: 580 mg/kg ^[2]	Skin (rabbit): 500 mg(open)-mod
		Skin(rabbit):10mg/24h(open)-SEVERE

Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

4-TERT-BUTYLPHENOL/ 4-TERT-OCTYLPHENOL/ FORMALDEHYDE	No significant acute toxicological data identified in literature search.		
2,4,4- TRIMETHYLHEXAMETHYLENE DIAMINE	<p>The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. Overexposure to most of these materials may cause adverse health effects. Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Data for mixed isomers, commercial material only</p>		
NONYLPHENOL	<p>Animal testing suggests that repeated exposure to nonylphenol may cause liver changes and kidney dysfunction. Nonylphenol was not found to cause mutations or chromosomal aberrations. These substances are intravenous anaesthetic agents. They have a very low level of acute toxicity; they may cause skin irritation. Repeated exposure may irritate the stomach.</p>		
2,4,4- TRIMETHYLHEXAMETHYLENE DIAMINE & NONYLPHENOL	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound.		
Acute Toxicity	✓	Carcinogenicity	✓
Skin Irritation/Corrosion	✓	Reproductivity	✓
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	█
Respiratory or Skin sensitization	✓	STOT - Repeated Exposure	⊖
Mutagenicity	✓	Aspiration Hazard	█

Legend: ✗ – Data available but does not fill the criteria for classification
 ✓ – Data available to make classification
 – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

8150 LT-25 HARDENER	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available

Continued...

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4-tert-butylphenol/ 4-tert-octylphenol/ formaldehyde	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available

N,N,N',N'- tetraglycidylm- xylenediamine	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available

2,4,4- trimethylhexamethylene diamine	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available

nonylphenol	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	0.00095mg/L	4
	EC50	48	Crustacea	0.104mg/L	4
	EC50	96	Algae or other aquatic plants	0.027mg/L	1
	BCF	504	Fish	0.081mg/L	4
	EC20	96	Fish	0.075mg/L	4
	NOEC	96	Crustacea	0.001mg/L	4

Legend: --Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite

V3.12

(QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high-water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Significant environmental findings are limited. Oxiranes (including glycidyl ethers and alkyl oxides, and epoxides) exhibit common characteristics with respect to environmental fate and ecotoxicology.

For 1,2-Butylene oxide (Ethylloxirane):

log Kow values of 0.68 and 0.86. BAF and BCF: 1 to 17 L/kg.

Environmental Fate: The alkylphenolics may be divided into three groups. Group I: Ortho-substituted mono-alkylphenols. For Alkylphenols and their Ethoxylates, or Propoxylates (APE):

Environmental fate: Alkylphenols are found everywhere in the environmental, when released. Releases are generally as wastes; they are extensively used throughout industry and in the home. Ecotoxicity - Phenols with log Pow >7.4 are expected to exhibit low toxicity to aquatic organisms however; the toxicity of phenols with a lower log Pow is variable.

Dinitrophenols are more toxic than predicted from QSAR estimates.

Environmental fate: N,N,N,N-tetraglycidyl-m-xylenediamine or TGXD is found to be not readily biodegradable. Significant environmental exposure to TGXD will occur only when the compound will react with part A of resin. **DO NOT discharge into sewer or waterways.**

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2,4,4-trimethylhexamethylene diamine	HIGH	HIGH
nonylphenol	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
2,4,4-trimethylhexamethylene diamine	LOW (LogKOW = 1.6347)
nonylphenol	LOW (BCF = 271)

Mobility in soil

Ingredient	Mobility
2,4,4-trimethylhexamethylene diamine	LOW (KOC = 1101)
nonylphenol	LOW (KOC = 56010)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Continued...



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Product / Packaging disposal	<ul style="list-style-type: none"> ◦ Containers may still present a chemical hazard/ danger when empty. ◦ Return to supplier for reuse/ recycling if possible. ◦ Recycle wherever possible. ◦ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. ◦ Most polyurethane amine catalysts and their byproducts can be chemically or biologically degraded. ◦ Incineration is the preferred method of disposal; however, nitrogen oxide emission control may be required to meet current environmental regulations. <p>Drum Disposal</p> <ul style="list-style-type: none"> ◦ While the many laws, regulations, and ordinances governing the disposal of empty containers are varied and complex, one principle is common to all: the responsibility for the proper disposal of empty containers lies with the waste generator. ◦ Moreover, the waste generator is also responsible for any injury to health or environment caused by improper disposal. <p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area.</p> <ul style="list-style-type: none"> ◦ DO NOT allow wash water from cleaning or process equipment to enter drains. ◦ It may be necessary to collect all wash water for treatment before disposal.
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SECTION 14 TRANSPORT INFORMATION**Labels Required**

Labels Required	
Marine Pollutant	

Land transport (DOT)

UN number	3082	
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.	
Transport hazard class(es)	Class	9
	Subrisk	Not Applicable
Packing group	III	
Environmental hazard	Environmentally hazardous	
Special precautions for user	Hazard Label	9
	Special provisions	8, 146, 173, 335, IB3, T4, TP1, TP29

Air transport (ICAO-IATA / DGR)

UN number	3082	
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. *	
Transport hazard class(es)	ICAO/IATA Class	9
	ICAO / IATA Subrisk	Not Applicable
	ERG Code	9L

Sea transport (IMDG-Code / GGVSee)

UN number	3082	
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	
Transport hazard class(es)	IMDG Class	9
	IMDG Subrisk	Not Applicable
Packing group	III	
Environmental hazard	Marine Pollutant	

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Special precautions for user	EMS Number	F-A , S-F
	Special provisions	274 335 969
	Limited Quantities	5 L

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION**Safety, health and environmental regulations / legislation specific for the substance or mixture****4-TERT-BUTYLPHENOL/ 4-TERT-OCTYLPHENOL/ FORMALDEHYDE (30940-67-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

N,N,N',N'-TETRAGLYCIDYL-M-XYLENEDIAMINE(63738-22-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

2,4,4-TRIMETHYLHEXAMETHYLENE DIAMINE (3236-54-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US - Massachusetts - Right To Know Listed Chemicals

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US - Pennsylvania - Hazardous Substance List

US TSCA Chemical Substance Inventory - Interim List of Active Substances

US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants

US TSCA Section 12(b) - List of Chemical Substances Subject to Export Notification Requirements

US EPCRA Section 313 Chemical List

US TSCA Section 4/12 (b) - Sunset Dates/Status

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule

US TSCA Section 5(a)(2) - Significant New Use Rules (SNURs)

Federal Regulations**Superfund Amendments and Reauthorization Act of 1986 (SARA)****SECTION 311/312 HAZARD CATEGORIES**

Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	Yes
Acute toxicity (any route of exposure)	Yes
Reproductive toxicity	Yes
Skin Corrosion or Irritation	Yes

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Respiratory or Skin Sensitization	Yes
Serious eye damage or eye irritation	Yes
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No

Germ cell mutagenicity	Yes
Simple Asphyxiant	No

US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)

None Reported

State Regulations**US. CALIFORNIA PROPOSITION 65**

None Reported

National Inventory	Status
Australia - AICS	N (4-tert-butylphenol/ 4-tert-octylphenol/ formaldehyde)
Canada - DSL	N (4-tert-butylphenol/ 4-tert-octylphenol/ formaldehyde; N,N,N',N'-tetraglycidyl-m-xylenediamine)
Canada - NDSL	N (2,4,4-trimethylhexamethylene diamine; nonylphenol)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	N (4-tert-butylphenol/ 4-tert-octylphenol/ formaldehyde)
Japan - ENCS	N (4-tert-butylphenol/ 4-tert-octylphenol/ formaldehyde)
Korea - KECI	Y
New Zealand - NZIoC	N (4-tert-butylphenol/ 4-tert-octylphenol/ formaldehyde)
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Revision Date	05/27/2020
Initial Date	04/28/2018

CONTACT POINT

PLEASE NOTE THAT TITANIUM DIOXIDE IS NOT PRESENT IN CLEAR OR NEUTRAL BASES

Other information**Ingredients with multiple cas numbers**

Name	CAS No
nonylphenol	25154-52-3, 84852-15-3, 139-84-4, 136-83-4

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average

PC—STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit.

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odor Safety Factor

NOAEL: No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value

LOD: Limit of Detection

OTV: Odor Threshold Value

BCF: BioConcentration Factors

BEI: Biological Exposure Index

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