

# ULTRA

## CLEAR EPOXY

### Safety Data Sheet Deep Pour Epoxy Hardener

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Revision date: 2018/11/29

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#### 1. Identification

**Product identifier used on the label**

#### **Deep Pour Epoxy Hardener**

**Recommended use of the chemical and restriction on use: Epoxy Curing Agent**

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

**Details of the supplier of the safety data sheet**

Company:

UltraClear Epoxy  
319 Hickerson Drive, Suite H  
Murfreesboro TN 37129  
1-800-259-1619

**Emergency telephone number**

CHEMTREC: 1-800-424-9300

**Other means of identification**

Chemical family: amine  
Synonyms: Polyetheramine

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#### 2. Hazards Identification

**According to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200**

**Classification of the product**

Acute Tox.	4	(oral)	Acute toxicity
Acute Tox.	4	(dermal)	Acute toxicity
Eve Dam./Irrit.	1		Serious eye damage/eye irritation
Aquatic Acute	2		Hazardous to the aquatic environment - acute
Aquatic Chronic	2		Hazardous to the aquatic environment - chronic

**Label elements**

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Pictogram:



Signal Word: **Danger**

Hazard Statement:

H318 Causes serious eye damage.  
H302 + H312 Harmful if swallowed or in contact with skin  
H401 Toxic to aquatic life.  
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280 Wear protective gloves and eye/face protection.  
P273 Avoid release to the environment.  
P270 Do not eat, drink or smoke when using this product.  
P264 Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P330 Rinse mouth.  
P303 + P361 IF ON SKIN (or hair): Wash with plenty of soap and water.  
P361 + P354 Take off immediately contaminated clothing and wash it before reuse.  
P391 Collect spillage

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection point.

### Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

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### 3. Composition / Information on Ingredients

**According to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200**

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
39423-51-3	> 75%	Polyetheramine
Trade Secret	< 25%	Proprietary

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### 4. First-Aid Measures

#### Description of first aid measures

##### General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

##### If inhaled:

Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

##### If on skin:

Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

##### If in eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eyespecialist.

##### If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

#### Most important symptoms and effects, both acute and delayed

#### Indication of any immediate medical attention and special treatment needed

##### Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

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### 5. Fire-Fighting Measures

#### Extinguishing media

Suitable extinguishing media:  
water spray, dry powder, carbon dioxide, foam

#### Special hazards arising from the substance or mixture

Hazards during fire-fighting:  
No particular hazards known.

#### Advice for fire-fighters

Protective equipment for fire-fighting:  
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

#### Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

#### Impact Sensitivity:

Remarks: No data available.

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### 6. Accidental release measures

#### **Personal precautions, protective equipment and emergency procedures**

Wear appropriate respiratory protection. Use personal protective clothing. Ensure adequate ventilation.

#### **Environmental precautions**

This product is not regulated by RCRA. This product is not regulated by CERCLA ('Superfund').

#### **Methods and material for containment and cleaning up**

Spills should be contained, solidified, and placed in suitable containers for disposal.

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### 7. Handling and Storage

#### **Precautions for safe handling**

Containers should be opened carefully in well-ventilated areas to avoid static discharge.

Protection against fire and explosion:

Take precautionary measures against static discharges.

#### **Conditions for safe storage, including any incompatibilities**

Segregate from acids and acid forming substances.

Further information on storage conditions: Containers should be stored tightly sealed in a dry place. Keep container tightly closed and in a well-ventilated place. Keep away from sources of ignition - No smoking. Keep container tightly closed.

Storage stability:

Keep container dry because product takes up the humidity of air.

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### 8. Exposure Controls/Personal Protection

#### **Components with workplace control parameters**

Contains no substances with established exposure limit values.

#### **Appropriate Engineering Controls**

Provide local exhaust ventilation to control vapors/mists.

#### **Personal protective equipment**

##### **Respiratory protection:**

Do not breathe dust/fume/gas/mist/vapors/spray. If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. Where risk assessment shows air-purifying respirators are appropriate wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator. Do not exceed maximum use concentration for the respirator facepiece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

##### **Hand protection:**

Chemical resistant protective gloves

##### **Eye protection:**

Wear face shield or tightly fitting safety goggles (chemical goggles) if splashing hazard exists.

##### **Body protection:**

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

##### **General safety and hygiene measures:**

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Eye wash fountains and safety showers must be easily accessible. Wear protective clothing as necessary to prevent contact. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Hands and/or face should be washed before breaks and at the end of the shift. When using, do not eat, drink or smoke. Remove contaminated clothing. Store work clothing separately.

### 9. Physical and Chemical Properties

Form:	liquid	
Odor:	amine-like	
Color:	Clear	
pH value:	11-12	( 100 g/l)
Melting point:	< -25 °C	
Boiling point:	> 225 °C	
Flash point:	190 °C	(ASTM D93)
Flammability:	not flammable	(other)
Lower explosion limit:		For liquids not relevant for and labelling. The lower explosion point may be 5 - 15 °C below the flash point.
Upper explosion limit:		For liquids not relevant for classification and labelling.
Autoignition:	> 300 °C	
Vapor pressure:	1.5 mbar	( 20 °C)
	10.2 mbar	( 55 °C)
Density:	0.98 g/cm <sup>3</sup>	( 20 °C)
Partitioning coefficient n-octanol/water (log Pow):	-1.13 ( 25 °C) (calculated)	
Self-ignition temperature:	Non self-igniting .	
Thermal decomposition:	140 °C, 30 kJ/kg (DSC (DIN 51007))	
	308 °C, > 340 kJ/kg (DSC (DIN 51007))	
	Thermal decomposition above the indicated temperature is possible. self-accelerating reaction	
Viscosity, kinematic:	110 mm <sup>2</sup> /s	( 20 °C)
Solubility in water:	550 g/l ( 20 °C) miscible	
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	

### 10. Stability and Reactivity

#### Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

#### Corrosion to Metals:

Corrosive effect on metals

#### Oxidizing Properties:

Not fire propagating (regulation 440/2008/EC, A.21)

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### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

### Possibility of hazardous reactions

The product is chemically stable.

### Conditions to avoid

No conditions known that should be avoided.

### Incompatible materials

acids

### Hazardous decomposition products

Decomposition products:

No hazardous decomposition products known.

Thermal decomposition:

145 °C (DSC (DIN51007))

315 °C (DSC (DIN51007))

Thermal decomposition above the indicated temperature is possible. self-accelerating reaction

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## 11. Toxicological information

### Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

### Acute Toxicity/Effects

#### Acute toxicity

Assessment of acute toxicity: Of high toxicity after single ingestion. Virtually nontoxic after a single skin contact. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely acute hazard.

#### Oral

Type of value: LD50

Species: rat

Value: > 550 - < 2000 mg/kg (OECD Guideline 425)

#### Inhalation

Value: LC0

Species: rat

Value: 113 mg/l (IRT)

Exposure time: 8 h

The vapor was tested

No mortality within the stated exposition time as shown in animal studies.

#### Dermal

Type of value: LD50

Species: rat

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Value: > 1,000 mg/kg (OECD Guideline 402)

### Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

### Irritation / corrosion

Assessment of irritating effects: May cause slight irritation to the skin. May cause severe damage to the eyes

### Skin

Species: Rabbit

Result: Slightly irritating

Method: OECD Guideline 404

### Eye

Species: In vitro assay

Result: Risk of serious damage to eyes.

Method: HET-CAM test in vitro

### Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

### Buehler test

Species: guinea pig

Result: Non-sensitizing

Method: similar to OECD guideline 406

### Aspiration Hazard:

No aspiration hazard expected

## **Chronic Toxicity/Effects**

### Repeated Dose Toxicity:

Assessment of repeated dose toxicity: No adverse effects were observed after repeated dermal exposure in animal studies. After repeated exposure the prominent effect is local irritation.

### Genetic toxicity

Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in studies with mammals.

### Carcinogenicity

Assessment of carcinogenicity: No data available.

### Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The results were determined in a Screening test (OECD 421/422).

### Teratogenicity

Assessment of teratogenicity: In animal studies the substance did not cause malformations. The results were determined in a Screening test (OECD 421/422).

## **Symptoms of Exposure**

The most important known symptoms and effects are described in the labeling (see section 2) and/or in section 11. Further symptoms are possible

### Medical conditions aggravated by overexposure

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product. See SDS section 11 - Toxicological information.

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### 12. Ecological Information

#### **Toxicity**

##### Aquatic toxicity

Assessment of aquatic toxicity:

Acutely toxic for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition

Toxicity to fish:

LC50 (96 h) > 100 mg/l, *Oncorhynchus mykiss* (OECD 203; ISO 7346; 84/449/EEC, C.1)

The details of the toxic effect relate to the nominal concentration

##### Aquatic invertebrates

EC50 (48 h) 13.0 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static) Nominal values (confirmed by concentration control analytics)

##### Aquatic plants

EC50 (72 h) 4.4 mg/l (growth rate), *pseudokirchneriella subcapitata* (OECD Guideline 201). The details of the toxic effect relate to the nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

No observed effect concentration 1 mg/l (growth rate), *pseudokirchneriella subcapitata* (OECD Guideline 201). The details of the toxic effect relate to the nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

##### Chronic toxicity to fish

No data available

##### Chronic toxicity to aquatic invertebrates

No data available

##### Assessment of terrestrial toxicity

No data available

#### **Microorganisms/Effect on activated sludge**

##### Toxicity to microorganisms

OECD Guideline 209 aerobic

activated sludge, domestic/EC20 (30 min): approx. 130 mg/l

The details of the toxic effect relate to the nominal concentration.

#### **Persistence and degradability**

##### Assessment biodegradation and elimination (H<sub>2</sub>O)

Not readily biodegradable (by OECD criteria). The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

##### Elimination information

< 10 % DOC reduction (28 d) (OECD 301 A (new version)) (aerobic, activated sludge, domestic)  
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### **Bioaccumulative potential**

##### Bioaccumulation potential

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.



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### Additional information

Adsorbable organically-bound halogen (AOX):  
This product contains no organically-bound halogen.

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## 13. Disposal considerations

### Waste disposal of substance:

Dispose of in a licensed facility. Do not discharge into waterways or sewer systems without proper authorization.

### Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

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## 14. Transport Information

### Land transport

USDOT

Hazard class:	6.1
Packing group:	III
ID number:	UN 2810
Hazard label:	6.1
Proper shipping name:	TOXIC LIQUID, ORGANIC, N.O.S. (contains POLYETHERAMINE)

### Sea transport

IMDG

Hazard class:	6.1
Packing group:	III
ID number:	UN 2810
Hazard label:	6.1
Marine pollutant:	NO
Proper shipping name:	TOXIC LIQUID, ORGANIC, N.O.S. (contains POLYETHERAMINE)

### Air transport

IATA/ICAO

Hazard class:	6.1
Packing group:	III
ID number:	UN 2810
Hazard label:	6.1
Proper shipping name:	TOXIC LIQUID, ORGANIC, N.O.S. (contains POLYETHERAMINE)

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## 15. Regulatory Information

### Federal Regulations

#### Registration status:

Chemical TSCA, US released /listed

**EPCRA 311/312 (Hazard categories):** Refer to SDS section 2 for GHS hazard classes applicable for this product

#### California Prop 65 Components:

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

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**NFPA Hazard codes:**

Health : 3      Fire: 1      Reactivity: 0      Special:

**HMIS III rating**

Health: 3      Flammability: 1      Physical hazard:0

**Assessment of the hazard classes according to UN GHS criteria (most recent version):**

Aquatic Acute	2	Hazardous to the aquatic environment - acute
Aquatic Chronic	2	Hazardous to the aquatic environment -
Acute Tox	4 (oral)	Acute toxicity
Acute Tox	4 (dermal)	Acute toxicity
Skin Corr /Irrit	3	Skin corrosion/irritation
Eye Dam./Irrit.	1	Serious eye damage/eye irritation

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### 16. Other Information

**SDS Prepared by:**

Ultraclear Epoxy LLC

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The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication as part of Ultraclear Epoxy. Product Safety Program. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information obtained herein. Data sheets are available for all Ultraclear Epoxy products. You are urged to obtain data sheets for all Ultraclear Epoxy products you buy, process, use or distribute and you are encouraged and requested to advise those who may come in contact with such products of the information contained therein.

To determine applicability or effects of any law or regulation with respect to the product, user should consult his legal advisor or the appropriate government agency. Ultraclear Epoxy does not undertake to furnish advice on such matters.

# ULTRA

## CLEAR EPOXY

GHS Safety Data Sheet

Date of Preparation: 11/29/18

### 1. Product and Company Identification

**Product Names:** Deep Pour Epoxy Resin  
**Product Class:** Epoxy Resin

**Manufacturer:** UltraClear Epoxy LLC.  
319 Hickerson Drive, Suite H  
Murfreesboro, TN 37129

**Telephone:** 1-800-259-1619  
**Emergency:** 800-424-9300 (ChemTrec)

### 2. Hazard Identification

**Form:** Viscous liquid.  
**OSHA/HCS status:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
Skin irritation – Category 2  
Eye irritation – Category 2A  
Skin sensitization – Category 1  
Acute aquatic toxicity – Category 2  
Chronic aquatic toxicity – Category 2

#### Label Elements



Hazard pictograms:

**Emergency Overview:** **WARNING!**  
**Hazards**  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
Toxic to aquatic life with long lasting effects.

#### Precautionary statements

**Prevention:**  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Wash skin thoroughly after handling.  
Contaminated work clothing should not be allowed out of the workplace.  
Avoid release to the environment.  
Wear eye protection/face protection.

**Response:**  
**IF ON SKIN:** Wash with plenty of soap and water.  
**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation or rash occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
Take off contaminated clothing and wash before reuse.  
Collect spillage.

**Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.

**Other hazards:**  
No data available  
See Section 11 for more detailed information on health effects and symptoms.

**3. Composition/Information on Ingredients**

**Synonyms: Liquid Epoxy Resin**

This product is a substance.

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>%</u>
Propane, 2,2-bis{p-(2,3-epoxypropoxy)phenyl}-, polymers	25085-99-8	75-95%
Alkyl(C12-14) glycidyl ether	68609-97-2	<25%
Proprietary	Proprietary	<10%

**4. First Aid Measures**

- Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention.
- Skin Contact:** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. For contact with hot product, flush contaminated skin with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze. Get medical attention immediately.
- Inhalation:** Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing air to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

<b>Ingestion:</b>	Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Protection of First Aid Personnel:</b>	In the event of body contact with molten material, immediately cool with running water; do not attempt to remove material from skin. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
<b>Notes to Physician:</b>	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**5. Fire-Fighting Measures**

<b>Flammability of Product:</b>	In a fire or if heated, a pressure increase will occur and the container may burst.
<b><u>Extinguishing Media:</u></b>	
<b>Suitable</b>	Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Water fog, applied gently may be used as a blanket for fire extinguishment.
<b>Not Suitable</b>	Do not use direct water stream. May spread fire.
<b>Special Exposure Hazards:</b>	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Smoke may contain the original material in addition to combustion products of varying compositions which may be toxic and/or irritating. Combustion products may include and are not limited to: Phenolics, Carbon monoxide, Carbon dioxide. No action shall be taken involving any personal risk or without suitable training.
<b>Hazardous Combustion Products</b>	Decomposition products may include the following materials: carbon oxides. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is emitted when burned without sufficient oxygen.
<b>Special Protective Equipment for Fire Fighters:</b>	Fire-Fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**6. Accidental Release Measures**

<b>Environmental Precautions:</b>	<b>Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).</b>
<b>Large Spill:</b>	<b>Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. For molten material, allow the product to cool and solidify. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.</b>
<b>Small Spill:</b>	<b>Stop leak if without risk. Move containers from spill area. For molten material, allow the product to cool and solidify. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.</b>

**7. Handling and Storage**

<b>Handling:</b>	<b>Avoid prolonged or repeated contact with skin. Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Avoid use of electric band heaters. Failures of electric band heaters have been reported to cause drums of liquid epoxy resin to explode and catch fire. Application of a direct flame to a container of liquid epoxy resin can also cause explosion and/or fire. See Section 8, Exposure Controls and Personal Protection</b>
<b>Storage:</b>	<b>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Note: This resin may be handled, shipped and stored at elevated temperature in bulk. Recommended pumping and storage temperature for bulk shipments if 60 degrees C (140 degrees F). Storage temperature: 2 – 43 degrees C (36 – 109 degrees F) Shelf Life – Use within 24 months</b>

**8. Exposure Controls/Personal Protection**

<b>Control Parameters:</b>	<b>None established</b>
<b>Recommended</b>	<b>If this product contains ingredients with exposure limits, personal,</b>

<b>Engineering Measures:</b>	Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
<b>Hygiene Measures:</b>	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
<b>Respiratory:</b>	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. In most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vap or cartridge with a particulate pre-filter.
<b>Eyes:</b>	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
<b>Skin:</b>	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<b>Environmental Exposure Controls:</b>	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. Physical and Chemical Properties

<b>Appearance</b>	Viscous liquid
<b>Flash Point</b>	Closed cup > 177C (> 350F) at Pensky-Martens Closed Cup ASTM D93
<b>Auto-Ignition Temperature</b>	Not Available
<b>Flammable limits</b>	
<b>Lower:</b>	Not applicable
<b>Upper:</b>	Not applicable
<b>Color</b>	Colorless to yellow
<b>pH</b>	Not available
<b>Boiling Point</b>	> 148 C (>300 F) Estimated
<b>Relative Density</b>	1.1
<b>Vapor Pressure</b>	<0.06 mmHg @ 21 C Literature

<b>Odor Threshold</b>	<b>Not available</b>
<b>Viscosity</b>	<b>500-800 cSt at 25 C (77F) ASTM D445</b>
<b>Water Solubility</b>	<b>Insoluble</b>
<b>Partition coefficient: n-Octanol/water</b>	<b>No Data Available</b>
<b>Evaporation rate</b>	<b>Not available</b>
<b>Vapor Density</b>	<b>Not available</b>

## 10. Stability and Reactivity

<b>Chemical Stability</b>	<b>The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.</b>
<b>Conditions to Avoid</b>	<b>Avoid short term exposures to temperatures above 300 degrees C. Potentially violent decomposition can occur above 350 degrees C. Avoid prolonged exposure to temperatures above 250 degrees C. Generation of gas during decomposition can cause pressure in closed systems. Pressure build up can be rapid. Avoid contact with oxidizing materials. Avoid contact with: Acids, Bases. Avoid unintended contact with amines.</b>
<b>Materials to Avoid</b>	<b>Reactive or incompatible with the following materials: oxidizing materials, strong acids, strong alkalis. Avoid unintentional contact with amines.</b>
<b>Other Hazards</b>	<b>Reacts with considerable heat release with some curing agents</b>
<b>Hazardous Decomposition Products</b>	<b>Decomposition products depend upon temperature, air supply and the presence of other materials. Gases are released during decomposition. Uncontrolled exothermic reaction of epoxy resins release phenolics, carbon monoxide, and water.</b>
<b>Reactivity</b>	<b>No data available</b>

## 11. Toxicological Information

<b><u>Acute oral toxicity</u></b>	<b>Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.</b>
	<b>Based on information for component(s)</b>



	<b>LD50 Oral Rat &gt; 5,000 mg/kg</b>
<b><u>Acute dermal toxicity</u></b>	<b>Prolonged skin contact is unlikely to result in absorption of harmful amounts.</b>
	<b>LD50 Dermal Rabbit &gt; 20,000 mg/kg</b>
<b><u>Acute inhalation toxicity</u></b>	<b>At room temperature, exposure to vapor is minimal due to low volatility. Vapor from heated material, mist or aerosols may cause respiratory irritation. The LC50 has not been determined.</b>
<b><u>Skin Corrosion/irritation</u></b>	<b>Prolonged contact may cause skin irritation with local redness. Repeated contact may cause skin irritation with local redness</b>
<b><u>Serious eye damage/eye irritation</u></b>	<b>May cause eye irritation. Corneal injury is unlikely.</b>
<b><u>Sensitization</u></b>	<b>For similar material(s): Has caused allergic skin reactions in humans. For respiratory sensitization: No relevant data found.</b>
<b><u>Specific Target Organ Systemic Toxicity (single Exposure)</u></b>	<b>Evaluation of available data suggests that this material is not an STOT-SE toxicant.</b>
<b><u>Specific Target Organ Systemic Toxicity (Repeated Exposure)</u></b>	<b>Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects.</b>
<b><u>Carcinogenicity</u></b>	<b>Many studies have been conducted to assess the potential carcinogenicity of diglycidyl ether of bisphenol A (DGEBA). Indeed, the most recent review of the available data by the International Agency for Research on Cancer (IARC) has concluded that DGEBA is not classified as a carcinogen.</b>
<b><u>Teratogenicity</u></b>	<b>Resins based on the diglycidyl ether of bisphenol A (DGEBA) did not cause birth defects or other adverse effects on the fetus when pregnant rabbits were exposed by skin contact, the most likely route of exposure, or when pregnant rats or rabbits were exposed orally.</b>
<b><u>Reproductive toxicity</u></b>	<b>In animal studies, did not interfere with reproduction.</b>
<b><u>Mutagenicity</u></b>	<b>In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.</b>
<b><u>Aspiration Hazard</u></b>	<b>Based on physical properties, not likely to be an aspiration hazard.</b>
<b><u>Components Influencing Toxicity</u></b>	<b>Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers Acute inhalation toxicity – The LC50 has not been determined</b>
	<b>Alkyl(C12-14) glycidyl ether Acute inhalation toxicity – Excessive exposure may cause irritation to upper respiratory tract (nose and throat) – LC50, Rat, 4 hour, vapour, 0.206 mg/l No deaths occurred following exposure to a saturated atmosphere.</b>

## 12. Ecological Information

### Toxicity

#### Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers

Acute toxicity to fish. Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50) between 1 and 10 mg/L in the most sensitive species tested)

LC50, Oncorhynchus mykiss (rainbow trout), semi-static test, 96 Hour, 2 mg/l.

Acute toxicity to aquatic invertebrates.

EC50, Daphnia magna (Water flea), static test, 48 hour, 1.8 mg/l

Acute toxicity to algae/aquatic plants

ErC50, Scenedesmus capricornutum (fresh water algae, static test, 72 Hour, Growth rate inhibition, 11 mg/l

Toxicity to bacteria

IC50, Bacteria, 18 Hour, Respiration rates, > 42.6 mg/l

Chronic aquatic toxicity

Chronic toxicity to aquatic invertebrates

MATC (Maximum Acceptable Toxicant Level), Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, 0.55 mg/l

#### Alkyl(C12-14) glycidyl ether

Acute toxicity to fish. Not expected to be acutely toxic, but material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life.

LC50, Oncorhynchus mykiss (rainbow trout), semi-static test, 96 Hour, >5,000 mg/l.

LC50, Lepomis macrochirus (Bluegil sunfish), static test, 96 Hour, 1,800 mg/l, Other guidelines

Acute toxicity to algae/aquatic plants

ErC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth inhibition (cell density reduction), 843 mg/l

NOEC, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth inhibition (cell density reduction), 500 mg/l

Scenedesmus capricornutum (fresh water algae, static test, 72 Hour, Growth rate inhibition, 11 mg/l

Toxicity to bacteria

EC50, activated sludge, static test, 3 Hour, Respiration rates > 100 mg/l

### Persistence and degradability

#### Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers

Biodegradability: Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

10-day Window: Not applicable

Biodegradation: 12%

Exposure time: 28d

Method: OECD Test Guideline 302B or Equivalent.

Theoretical Oxygen Demand: 2.35 mg/mg Estimated.

### 13. Disposal Considerations

#### Waste Disposal

The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

As your supplier, we have no control over the management practices or manufacturing processes of parties handling or using this material. The information presented here pertains only to the product as shipped in its intended condition as described in the SDS Section: Composition Information. For unused and uncontaminated product, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

### 14: Transport Information

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

DOT Not regulated for transport

#### Classification for SEA transport (IMO-IMDG):

Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUB-STANCE, LIQUID, N.O.S. (EPOXY RESIN)
UN Number	UN 3082
Class	9
Packing group	III
Marine pollutant	Epoxy Resin
Transport in bulk	Consult IMO regulations before transporting
According to Annex	ocean bulk
I or II of MARPOL	
73/78 and the IBC or	
IGC Code	

#### Classification for AIR transport (IATA/ICAO):

Proper Shipping name:	ENVIRONMENTALLY HAZARDOUS SUB-STANCE, LIQUID, N.O.S. (EPOXY RESIN)
UN Number	UN 3082
Class	9
Packing Group	III

### 15. Regulatory Information

**US Regulations**

**OSHA Hazard  
Communication  
Standard**

This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**U.S. Federal  
Regulations**

**SARA Section 313**  
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA Sections 311 and 312**  
Acute Health Hazard

**United States TSCA  
Inventory (TSCA)**

All components of this product are in compliance with the inventory listing requirements of the U.S Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

**SARA 301 Extremely Hazardous Substances – None required**

**State Regulations**

**Massachusetts RTK Substances – None required**

**New jersey RTK Hazardous Substances – None required**

**Pennsylvania RTK Hazardous Substances – To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.**

**California Prop. 65: This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm.**

**International Regulations**

**Chemical Inventories**

**Europe inventory – All components are listed or exempted**

**Australia inventory (AICS) – All components are listed or exempted**

**China inventory ( IECSC) – All components are listed or exempted**

**Korea inventory (KECI) – All components are listed or exempted**

**Philippines inventory (PICCS) – All components are listed or exempted**

**Japan inventory ( ENCS) – All components are listed or exempted**

**Canada inventory – All components are listed or exempted**

**United States inventory (TSCA 8b)– All components are listed or exempted**

**16. Other Information**

**Hazardous Material  
Information System III  
(U.S.A.)**

**Health: 1  
Flammability: 1  
Reactivity: 0  
Chronic:**

**Caution: HMIS ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks.**

The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication as part of Ultraclear Epoxy. Product Safety Program. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information obtained herein. Data sheets are available for all Ultraclear Epoxy products. You are urged to obtain data sheets for all Ultraclear Epoxy products you buy, process, use or distribute and you are encouraged and requested to advise those who may come in contact with such products of the information contained therein.

To determine applicability or effects of any law or regulation with respect to the product, user should consult his legal advisor or the appropriate government agency. Ultraclear Epoxy does not undertake to furnish advice on such matters.