

## MATERIAL SAFETY DATA SHEET (MSDS)

FIRST ISSUE DATE: 01 March, 2004

### Section 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **Bolder Wrap™**

MFR'S NAME: Comptek Structural Composites. 5500 Flatiron Pkwy., Suite 100, Bolder, CO 80301  
EMERGENCY PHONE: 303-531-5758 GENERAL INFORMATION: 303-531-5758

### Section 2: COMPOSITION, INFORMATION ON INGREDIENTS

INGREDIENT	%	CAS #	EXPOSURE LIMITS
4,4'-Diphenylmethane diisocyanate	<1	101-68-8	0.051mg/m <sup>3</sup> ; TWA ACGIH
Diphenylmethane diisocyanate	<10	26447-40-5	N.E.
Polyisocyanate based on MDI	<30	none	N.E.
Borosilicate glass fiber roving	>60	65997-17-3	5mg/m <sup>3</sup> free floating fiber; PEL OSHA

### Section 3: HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** A glass fiber fabric, impregnated with a polyurethane water-activated uncured (wet) resin, very similar to medical orthopedic cast material of a similar nature. Some people are inhalation-sensitive to the vapors of the various isocyanates and can have respiratory problems. Contact to unprotected body parts must be avoided. Burning resin would release highly toxic gases. Once exposed to water and cured, this product is essentially inert. Product gives off carbon dioxide gas while curing. Avoid unprotected use in confined spaces or where ventilation is poor.

#### POTENTIAL HEALTH EFFECTS:

##### EYE:

- May cause corneal damage or other eye injuries.

##### SKIN:

- May irritate unprotected skin after frequent or prolonged exposure.

##### INGESTION:

- Will cause mechanical and chemical damage to gastrointestinal tract.

##### INHALATION:

- May cause irritation of mucous membranes. Some sensitized persons may have serious respiratory reaction. Extreme cases may even resemble anaphylactic shock.

##### CHRONIC EFFECTS:

- Repeated or prolonged, unprotected exposure may cause respiratory sensitization. Bronchitis, asthma and other respiratory conditions are known to be aggravated.

##### SIGNS & SYMPTOMS:

- Tightness in the throat; difficulty breathing; wheezing, cough, shortness of breath; redness of skin and irritation. Flu-like symptoms, either immediate or delayed by several hours.

### Section 4: FIRST AID MEASURES

⇒USE APPROPRIATE BLOOD-BORNE PATHOGENS PROTECTIONS⇐

##### EYE:

- Wipe excess from eyelid outer surfaces, then immediately flood with continuous, large quantities of water or eyewash. Get emergency medical attention.

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**SKIN:**

- Wipe away excess. Flood affected skin with large quantities of water and wash with soap & water. Get medical attention if irritation or other problems develop.

**INGESTION:**

- Highly unlikely to occur. If this occurs, do NOT induce vomiting and, if victim will receive medical attention quickly, do NOT administer water or any other liquid, unless directed to do so by a medical professional. Keep patient calm and get emergency medical attention.

**INHALATION:**

- Move victim to fresh air. Monitor and provide necessary breathing support. Get medical attention if difficulty lasts more than a few minutes, or if irritation or any other problems develop.

### **Section 5: FIRE FIGHTING MEASURES**

FLASH POINT: >145°C (>293°F) UEL/LEL: n.d.a. VAPOR DENSITY: much heavier than air  
NFPA FLAMMABILITY RATING: 1 AUTOIGNITION: n.d.a.  
COMBUSTION PRODUCTS: CO, CO<sub>2</sub>, NO<sub>x</sub>, & misc. hydrocarbons with traces of HCN & MDI vapors.  
SPECIAL HAZARDS: Burning may cause extra health and safety risks. At temperatures > 204°C (>400°F) portions of the resin may polymerize, creating pressure in containers and liberating hazardous gasses.  
EXTINGUISHING MEDIA: Use foam, CO<sub>2</sub>, dry chemical, water fog.  
FIRE FIGHTER INSTRUCTIONS: Stay upwind. Wear at least full bunker gear and SCBA.

### **Section 6: ACCIDENTAL RELEASE MEASURES**

Ventilate. Avoid unprotected contact. Scoop up & place in vented containers.

### **Section 7: HANDLING AND STORAGE**

Wash thoroughly after handling. Never eat or smoke around product.

Store in original sealed containers in a cool, dry ventilated storage area.

### **Section 8: EXPOSURE CONTROLS, PERSONAL PROTECTION**

For Personal Exposure Limits (PEL), Threshold Limit Values (TLV) or other exposure limits, see Sec. 2.

GENERAL: Provide ventilation that will keep airborne concentration below exposure limits.

EYE/FACE: Safety glasses minimum. When applying product, addition of chemical splash goggles or face shield.

SKIN: Impervious chemical gloves.

RESPIRATORY: If engineering controls cannot keep exposures below those indicated in Section 2, use of at least a NIOSH-approved chemical cartridge respirator, or better, is required.

OTHER: Full coverage of skin is recommended. Never smoke or eat around product.

### **Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE: sticky "wet" fabric  
pH: 7 VAPOR PRESS: 5mm Hg  
BOILING PT: 367°C ( 694°F)

ODOR: slight PHYSICAL STATE: solid/gel  
VAPOR DENSITY: 8.5 SPECIFIC GRAVITY: 1.14  
MELT PT: N/A SOLUBILITY IN H<sub>2</sub>O: very low

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### Section 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: Material is stable with no known conditions to avoid.  
INCOMPATIBILITY: amines, strong bases, alcohols; and water in an uncontrolled exposure of bulk quantities of material.  
HAZARDOUS POLYMERIZATION: Will not normally occur. Only large bulk quantities, as above.  
HAZARDOUS DECOMPOSITION: None known, other than Sec. 5's Combustion Products.

### Section 11: TOXICOLOGICAL INFORMATION

n.d.a.

### Section 12: ECOLOGICAL INFORMATION

n.d.a.

### Section 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable laws and regulations.

### Section 14: TRANSPORT INFORMATION

DOT: Not Regulated  
IATA: Not Regulated

### Section 15: REGULATORY INFORMATION

OSHA HCS: not listed	DOT 172.101: listed	CERCLA RQ: 5,000 lbs, resin
CLEAN AIR 112(b): listed	TSCA: listed	STORMWATER RUNOFF: not listed
SARA 313: listed	SARA TPQ: not listed	SARA PRIORITY (PC): not listed
CA PROP. 65: not listed.	RISK MGMT: not listed	RCRA Waste Number: none
VOC %: zero		

### Section 16: OTHER INFORMATION

NFPA: Not actually rated by NFPA. Following are Comptek Structural Composites interpolations:  
HEALTH 3      FIRE 1      REACTIVITY 1      OTHER none

ABBREVIATIONS: N/A = not applicable; N.D.A. = no data available; N.E. = not established

END OF MSDS

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## MATERIAL SAFETY DATA SHEET (MSDS)

FIRST ISSUE DATE September 9, 2009

### Section 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME Comptek Epoxy Laminating Resin

MFR'S NAME: Comptek Structural Composites. 5500 Flatiron Parkway, Suite 100 Boulder, CO 80301  
EMERGENCY PHONE: 303-531-5758 GENERAL INFORMATION: 303-531-5758

### Section 2: COMPOSITION, INFORMATION ON INGREDIENTS

#### Chemical characterization

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

50-100%

68609-97-2 C12/C14 Alkylglycidylether 2.5-10%

3454-29-3 Trimethylolpropanetriglycidylether 0.5-10%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

#### 3 Hazards identification

· **Hazard description:**

Xi Irritant

### Section 3: HAZARDS IDENTIFICATION

#### Hazard description:

Xi Irritant

N Dangerous for the environment

#### Information pertaining to particular dangers for man and environment:

Irritating to eyes and skin.

May cause sensitization by skin contact.

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

Contains epoxy constituents. See information supplied by the manufacturer.

#### Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

#### NFPA ratings (scale 0 - 4)

Health = 2

Fire = 1

Reactivity = 0

#### HMIS-ratings (scale 0 - 4)

HEALTH

FIRE

REACTIVITY

Health = 2

Fire = 1

Reactivity = 0

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## Section 4: FIRST AID MEASURES

### After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

### After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

### After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:** If symptoms persist consult doctor.

## Section 5: FIRE FIGHTING MEASURES

### Suitable extinguishing agents:

Water haze

Foam

Fire-extinguishing powder

Carbon dioxide

**For safety reasons unsuitable extinguishing agents:** Water with full jet

### Special hazards caused by the material, its products of combustion or resulting gases:

Formation of toxic gases is possible during heating or in case of fire.

### Protective equipment:

Mount respiratory protective device.

Wear fully protective suit.

## Section 6: ACCIDENTAL RELEASE MEASURES

**Person-related safety precautions:** Not required.

### Measures for environmental protection:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

### Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

## Section 7: HANDLING AND STORAGE

### Handling:

**Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.

**Information about protection against explosions and fires:** No special measures required.

### Storage:

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

### Further information about storage conditions:

Keep receptacle tightly sealed.

Protect from heat and direct sunlight.

## Section 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

**Additional information about design of technical systems:** No further data; see item 7.

### Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists that were valid during the creation were used as basis.

### Personal protective equipment:

### General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Breathing equipment:** Not required.

**Protection of hands:**

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Nitrile rubber, NBR

**As protection from splashes gloves made of the following materials are suitable:**

Nitrile rubber, NBR

**Eye protection:**

Tightly sealed goggles

**Body protection:** Protective work clothing

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**General Information**

**Form:** Fluid

**Color:** Yellowish

**Odor:** Characteristic

**Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** Undetermined.

**Flash point:** 126°C (259°F)

**Ignition temperature:** 460.0°C (860°F)

**Auto igniting:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Vapor pressure at 20°C (68°F):** 0.1 hPa (0 mm Hg)

**Density at 20°C (68°F):** 1.150 g/cm<sup>3</sup>

**Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix.

**Viscosity:**

**Dynamic at 20°C (68°F):** 1950 mPas

**Solvent content:**

**Organic solvents:** 0.1 %

**Water:** 0.0 %

**Solids content:** 0.0 %

## Section 10: STABILITY AND REACTIVITY

**Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**Dangerous reactions** No dangerous reactions known.

**Dangerous products of decomposition:** No dangerous decomposition products known.

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## Section 11: TOXICOLOGICAL INFORMATION

**Acute toxicity:**

**Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.

**Sensitization:** Sensitization possible through skin contact.

**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

## Section 12: ECOLOGICAL INFORMATION

**General notes:**

Water hazard class 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.

## Section 13: DISPOSAL CONSIDERATIONS

**Product:**

**Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:**

**Recommendation:**

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

## Section 14: TRANSPORT INFORMATION

**DOT regulations:**

**Hazard class:** 9

**Identification number:** UN3082

**Packing group:** III

**Proper shipping name (technical name):** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol A-(epichlorhydrin); epoxy resin(number average molecular weight<700))

**Label 9**

**Land transport ADR/RID (cross-border):**

**ADR/RID class:** 9 Miscellaneous dangerous substances and articles

**Danger code (Kemler):** 90

**UN-Number:** 3082

**Packaging group:** III

**Description of goods:** 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700))

**Maritime transport IMDG:**

**IMDG Class:** 9

**UN Number:** 3082

**Label 9**

**Packaging group:** III

**EMS Number:** F-A,S-F

**Marine pollutant:** No

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**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S. (bisphenol A-(epichlorhydrin); epoxy  
resin(number average molecular weight<700))

**Air transport ICAO-TI and IATA-DGR:**

**ICAO/IATA Class:** 9

**UN/ID Number:** 3082

**Label** 9

**Packaging group:** III

**Propper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S. (bisphenol A-(epichlorhydrin); epoxy  
resin(number average molecular weight<700))

<b>Section 15: REGULATORY INFORMATION</b>
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**Sara**

**Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

**Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

**TSCA (Toxic Substances Control Act):**

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

9003-36-5 Epoxy novolac resin

68609-97-2 C12/C14 Alkylglycidylether

8052-41-3 Stoddard solvent

**Proposition 65**

**Chemicals known to cause cancer:**

None of the ingredients is listed.

**Chemicals known to cause reproductive toxicity:**

None of the ingredients is listed.

**Cancerogenity categories**

**EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

**NTP (National Toxicology Program)**

None of the ingredients is listed.

**TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

**MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

**Hazard symbols:**

Xi Irritant

N Dangerous for the environment

**Hazard-determining components of labeling:**

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

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Comptek Structural Composites

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C12/C14 Alkylglycidylether  
Trimethylolpropanetriglycidylether

**Risk phrases:**

Irritating to eyes and skin.  
May cause sensitization by skin contact.  
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

**Safety phrases:**

Avoid contact with skin.  
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
After contact with skin, wash immediately with plenty of water  
Wear suitable gloves and eye/face protection.  
Use appropriate container to avoid environmental contamination.  
This material and its container must be disposed of as hazardous waste.

**Special labeling of certain preparations:**

Contains epoxy constituents. See information supplied by the manufacturer.

**National regulations:**

All components in this formulation are listed in the EPA TSCA chemical inventory. They comply with applicable rules and orders of the regulations.

**Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

<b>Section 16: OTHER INFORMATION</b>
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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Contact: Comptek Structural Composites, Inc.**

Larry Cercone  
303-531-5758

## MATERIAL SAFETY DATA SHEET (MSDS)

FIRST ISSUE DATE: September 9, 2009

### Section 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Comptek Epoxy Fast Hardener

MFR'S NAME: Comptek Structural Composites. 5500 Flatiron Pkwy., Suite 100, Bolder, CO 80301  
EMERGENCY PHONE: 303-531-5758 GENERAL INFORMATION: 303-531-5758

### Section 2: COMPOSITION, INFORMATION ON INGREDIENTS

#### Chemical characterization

**Description:** Mixture of the substances listed below with nonhazardous additions.

#### Dangerous components:

140-31-8 2-piperazin-1-ylethylamine 25-50%

100-51-6 benzyl alcohol 10-25%

112-24-3 3,6-diazaoctanethylenediamin 2.5-10%

929-59-9 3,6-dioxaoctamethylenediamine 2.5-10%

108-95-2 phenol 2.5-10%

9046-10-0 Polyoxyalkyleneamine 2.5-10%

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine 2.5-10%

98-54-4 4-tert-butylphenol 0.5-10%

### Section 3: HAZARDS IDENTIFICATION

#### Hazard description:

C Corrosive

#### Information pertaining to particular dangers for man and environment:

Harmful in contact with skin and if swallowed.

Causes burns.

May cause sensitization by skin contact.

#### Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

#### NFPA ratings (scale 0 - 4)

Health = 2

Fire = 1

Reactivity = 0

#### HMIS-ratings (scale 0 - 4)

HEALTH

FIRE

REACTIVITY

Health = 2

Fire = 1

Reactivity = 0

### Section 4: FIRST AID MEASURES

#### General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

#### After inhalation:

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Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

**After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing:** Immediately call a doctor. Drink copious amounts of water and provide fresh air.

Immediately call a doctor.

### Section 5: FIRE FIGHTING MEASURES

**Suitable extinguishing agents:**

Water haze

Foam

Fire-extinguishing powder

Carbon dioxide

**For safety reasons unsuitable extinguishing agents:** Water with full jet

**Special hazards caused by the material, its products of combustion or resulting gases:**

Formation of toxic gases is possible during heating or in case of fire.

**Protective equipment:**

Mount respiratory protective device.

Wear fully protective suit.

### Section 6: ACCIDENTAL RELEASE MEASURES

**Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Wear protective clothing.

**Measures for environmental protection:**

Prevent seepage into sewage system, workpits and cellars.

Do not allow to enter sewers/ surface or ground water.

**Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

### Section 7: HANDLING AND STORAGE

**Handling:**

**Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**Information about protection against explosions and fires:** No special measures required.

**Storage:**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep receptacle tightly sealed.

### Section 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

**Additional information about design of technical systems:** No further data; see item 7.

**Components with limit values that require monitoring at the workplace:**

**108-95-2 phenol (2.5-10%)**

ACGIH TLV

NIOSH REL

OSHA PEL

5 ppm

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Skin; A4; BEI  
Short-term value: C 60\* mg/m<sup>3</sup>, C 15.6\* ppm  
Long-term value: 19 mg/m<sup>3</sup>, 5 ppm  
\*15-min  
19 mg/m<sup>3</sup>, 5 ppm  
Skin

**Additional information:** The lists that were valid during the creation were used as basis.

**Personal protective equipment:**

**General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.

**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Protection of hands:**

Protective gloves

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Nitrile rubber, NBR

**As protection from splashes gloves made of the following materials are suitable:**

Nitrile rubber, NBR

**Eye protection:**

Tightly sealed goggles

**Body protection:** Protective work clothing

<b>Section 9: PHYSICAL AND CHEMICAL PROPERTIES</b>
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**General Information**

**Form:** Fluid

**Color:** Light brown

**Odor:** Characteristic

**Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** 88°C (190°F)

**Flash point:** 101°C (214°F)

**Ignition temperature:** 315.0°C (599°F)

**Auto igniting:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Density at 20°C (68°F):** 1.000 g/cm<sup>3</sup>

**Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix.

**pH-value at 20°C (68°F):** 11.0

**Viscosity:**

**Dynamic at 20°C (68°F):** 180 mPas

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**Solvent content:**  
**Organic solvents:** 0.0 %  
**Water:** 0.0 %  
**Solids content:** 4.9 %

### Section 10: STABILITY AND REACTIVITY

**Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**Dangerous reactions** No dangerous reactions known.

**Dangerous products of decomposition:** No dangerous decomposition products known.

### Section 11: TOXICOLOGICAL INFORMATION

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:**

**140-31-8 2-piperazin-1-ylethylamine**

Oral LD50 1470 mg/kg (rat)

Dermal LD50 866 mg/kg (rbt)

**108-95-2 phenol**

Oral LD50 300 mg/kg (mus)

Dermal LD50 670 mg/kg (rat)

Inhalative LC50/4 h 316 mg/l (rat)

**Primary irritant effect:**

**on the skin:** Caustic effect on skin and mucous membranes.

**on the eye:** Strong caustic effect.

**Sensitization:** Sensitization possible through skin contact.

**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

### Section 12: ECOLOGICAL INFORMATION

**General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow product to reach ground water, water course or sewage system.

### Section 13: DISPOSAL CONSIDERATIONS

**Product:**

**Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packagings:**

**Recommendation:**

Packaging that cannot be cleansed are to be disposed of in the same manner as the product.

### Section 14: TRANSPORT INFORMATION

**DOT regulations:**

**Hazard class:** 8

**Identification number:** UN2735

**Packing group:** III

**Proper shipping name (technical name):** POLYAMINES, LIQUID, CORROSIVE, N.O.S.  
( T R I E T H Y L E N E T E T R A M I N E , N - A M I N O E T H Y L P I P E R A Z I N E )

ATTENTION: No representation is made as to the accuracy or correctness of the information contained herein, other than to state that it is presented by this organization in good faith and we believe it to be correct and accurate per the limits of our understanding and training as of the date of first publication. The user or handler of this product is warned to take the most conservative and safest interpretation possible of all information contained herein and to use the most extreme personal protection measures and exposure limitations prudently dictated by the specific usage or handling situation, this MSDS information and good industrial safety and hygiene practices.

**Label 8**

**Land transport ADR/RID (cross-border):**

**ADR/RID class:** 8 Corrosive substances

**Danger code (Kemler):** 80

**UN-Number:** 2735

**Packaging group:** III

**Description of goods:** 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S.

( TRIETHYLENETETRAMINE , N - AMINOETHYLPIPERAZINE)

**Maritime transport IMDG:**

**IMDG Class:** 8

**UN Number:** 2735

**Label 8**

**Packaging group:** III

**EMS Number:** F-A,S-B

**Marine pollutant:** No

**Propper shipping name:** POLYAMINES, LIQUID, CORROSIVE, N.O.S.

( TRIETHYLENETETRAMINE , N - AMINOETHYLPIPERAZINE)

**Air transport ICAO-TI and IATA-DGR:**

**ICAO/IATA Class:** 8

**UN/ID Number:** 2735

**Label 8**

**Packaging group:** III

**Propper shipping name:** POLYAMINES, LIQUID, CORROSIVE, N.O.S.

( TRIETHYLENETETRAMINE , N - AMINOETHYLPIPERAZINE)

**Section 15: REGULATORY INFORMATION**

**Sara**

**Section 355 (extremely hazardous substances):**

108-95-2 phenol

**Section 313 (Specific toxic chemical listings):**

108-95-2 phenol

**TSCA (Toxic Substances Control Act):**

140-31-8 2-piperazin-1-ylethylamine

100-51-6 benzyl alcohol

112-24-3 3,6-diazaoctanethylenediamin

929-59-9 3,6-dioxaoctamethylenediamine

108-95-2 phenol

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

98-54-4 4-tert-butylphenol

**Proposition 65**

**Chemicals known to cause cancer:**

None of the ingredients is listed.

**Chemicals known to cause reproductive toxicity:**

None of the ingredients is listed.

**Product related hazard information:**

The product has been classified and marked in accordance with directives on hazardous materials.

**Hazard symbols:**

C Corrosive

**Hazard-determining components of labeling:**

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2-piperazin-1-ylethylamine  
3,6-diazaoctanethylenediamin  
3,6-dioxaoctamethylenediamine  
3-aminomethyl-3,5,5-trimethylcyclohexylamine

**Risk phrases:**

Harmful in contact with skin and if swallowed.

Causes burns.

May cause sensitization by skin contact.

**Safety phrases:**

When using do not eat or drink.

Do not breathe gas/fumes/vapour/spray.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After contact with skin, wash immediately with plenty of ... .

Wear suitable protective clothing, gloves and eye/face protection.

In case of accident or if you feel unwell, seek medical advice immediately.

**National regulations:**

All components in this formulation are listed in the EPA TSCA chemical inventory. They comply with applicable rules and orders of the regulations.

**Technical instructions (air):**

**Class Share in %**

I 4.5

II 11.1

III 26.3

**Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

<b>Section 16: OTHER INFORMATION</b>
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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing MSDS:** Comptek Structural Composites, Inc.

**Contact:**

Larry Cercone

303-531-5758

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## MATERIAL SAFETY DATA SHEET (MSDS)

FIRST ISSUE DATE September 9, 2009

### Section 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME Comptek Epoxy Slow Hardener

MFR'S NAME: Comptek Structural Composites. 5500 Flatiron Parkway, Suite 100 Boulder, CO 80301  
EMERGENCY PHONE: 303-531-5758 GENERAL INFORMATION: 303-531-5758

### Section 2: COMPOSITION, INFORMATION ON INGREDIENTS

#### Chemical characterization

**Description:** Mixture of the substances listed below with nonhazardous additions.

#### Dangerous components:

9046-10-0 Polyoxyalkyleneamine 25-50%  
1477-55-0 m-phenylenebis(methylamine) 10-25%  
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine 10-25%  
1761-71-3 4,4'-methylenebis(cyclohexylamine) 10-25%  
111-40-0 2,2'-iminodiethylamine 2.5-10%  
80-05-7 bisphenol A 2.5-10%

### Section 3: HAZARDS IDENTIFICATION

#### Hazard description:

C Corrosive

#### Information pertaining to particular dangers for man and environment:

The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Harmful in contact with skin and if swallowed.

Causes severe burns.

May cause sensitization by skin contact.

#### Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

#### NFPA ratings (scale 0 - 4)

Health = 3

Fire = 1

Reactivity = 0

#### HMIS-ratings (scale 0 - 4)

HEALTH

FIRE

REACTIVITY

Health = \*3

Fire = 1

Reactivity = 0

### Section 4: FIRST AID MEASURES

**General information:** Immediately remove any clothing soiled by the product.

#### After inhalation:

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Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

**After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing:**

Immediately call a doctor.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

## Section 5: FIRE FIGHTING MEASURES

**Suitable extinguishing agents:**

Water haze

Foam

Fire-extinguishing powder

Carbon dioxide

**For safety reasons unsuitable extinguishing agents:** Water with full jet

**Special hazards caused by the material, its products of combustion or resulting gases:**

Formation of toxic gases is possible during heating or in case of fire.

**Protective equipment:**

Mount respiratory protective device.

Wear fully protective suit.

## Section 6: ACCIDENTAL RELEASE MEASURES

**Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.

**Measures for environmental protection:**

Prevent seepage into sewage system, workpits and cellars.

Do not allow to enter sewers/ surface or ground water.

**Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

## Section 7: HANDLING AND STORAGE

**Handling:**

**Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**Information about protection against explosions and fires:** No special measures required.

**Storage:**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep receptacle tightly sealed.

## Section 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

**Additional information about design of technical systems:** No further data; see item 7.

**Components with limit values that require monitoring at the workplace:**

**1477-55-0 m-phenylenebis(methylamine) (10-25%)**

TLV 0.1 mg/m<sup>3</sup>

**111-40-0 2,2'-iminodiethylamine (2.5-10%)**

TLV 4.2 mg/m<sup>3</sup>, 1 ml/m<sup>3</sup>

**Additional information:** The lists that were valid during *the creation were used as basis.*

**Personal protective equipment:**

**General protective and hygienic measures:**

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Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.

**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Protection of hands:**

Protective gloves

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

**For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Nitrile rubber, NBR

**As protection from splashes gloves made of the following materials are suitable:**

Nitrile rubber, NBR

**Eye protection:**

Tightly sealed goggles

**Body protection:** Protective work clothing

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### General Information

**Form:** Fluid

**Color:** Light brown

**Odor:** Amine-like

### Change in condition

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** 207°C (405°F)

**Flash point:** 110°C (230°F)

**Ignition temperature:** 240.0°C (464°F)

**Auto igniting:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Density at 20°C (68°F):** 0.968 g/cm<sup>3</sup>

### Solubility in / Miscibility with

**Water:** Not miscible or difficult to mix.

### Viscosity:

**Dynamic at 20°C (68°F):** 200 mPas

### Solvent content:

**Organic solvents:** 0.0 %

**Water:** 0.0 %

**Solids content:** 0.0 %

## Section 10: STABILITY AND REACTIVITY

### Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

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**Dangerous reactions** No dangerous reactions known.

**Dangerous products of decomposition:** No dangerous decomposition products known.

### Section 11: TOXICOLOGICAL INFORMATION

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:**

**9046-10-0 Polyoxyalkyleneamine**

Oral LD50 1660 mg/kg (rat)

Dermal LD50 760 mg/kg (rab)

**Primary irritant effect:**

**on the skin:** Caustic effect on skin and mucous membranes.

**on the eye:** Strong caustic effect.

**Sensitization:** Sensitization possible through skin contact.

**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

### Section 12: ECOLOGICAL INFORMATION

**General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow product to reach ground water, water course or sewage system.

### Section 13: DISPOSAL CONSIDERATIONS

**Product:**

**Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packagings:**

**Recommendation:**

Disposal must be made according to official regulations.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

### Section 14: TRANSPORT INFORMATION

**DOT regulations:**

· **Hazard class:** 8

· **Identification number:** UN2735

· **Packing group:** II

· **Proper shipping name (technical name):** POLYAMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-methylenebis(cyclohexylamine), Polyoxyalkyleneamine)

· **Label** 8

· **Land transport ADR/RID (cross-border):**

· **ADR/RID class:** 8 Corrosive substances

· **Danger code (Kemler):** 80

· **UN-Number:** 2735

· **Packaging group:** II

· **Description of goods:** 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-

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methylenebis(cyclohexylamine), Polyoxyalkyleneamine)

**Maritime transport IMDG:**

**IMDG Class:** 8

**UN Number:** 2735

**Label 8**

**Packaging group:** II

**EMS Number:** F-A,S-B

**Marine pollutant:** No

**Propper shipping name:** POLYAMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-methylenebis(cyclohexylamine), Polyoxyalkyleneamine)

**Air transport ICAO-TI and IATA-DGR:**

**ICAO/IATA Class:** 8

**UN/ID Number:** 2735

**Label 8**

**Packaging group:** II

**Propper shipping name:** POLYAMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-methylenebis(cyclohexylamine), Polyoxyalkyleneamine)

<b>Section 15: REGULATORY INFORMATION</b>
---

**Sara**

**Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

**Section 313 (Specific toxic chemical listings):**

80-05-7 bisphenol A

**TSCA (Toxic Substances Control Act):**

All ingredients are listed.

**Proposition 65**

**Chemicals known to cause cancer:**

None of the ingredients is listed.

**Chemicals known to cause reproductive toxicity:**

None of the ingredients is listed.

**Carcinogeny categories**

**EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

**NTP (National Toxicology Program)**

None of the ingredients is listed.

**TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

**MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

**Hazard symbols:**

C Corrosive

**Hazard-determining components of labelling:**

4,4'-methylenebis(cyclohexylamine)

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3-aminomethyl-3,5,5-trimethylcyclohexylamine  
2,2'-iminodiethylamine  
bisphenol A

**Risk phrases:**

Harmful in contact with skin and if swallowed.  
Causes severe burns.  
May cause sensitization by skin contact.

**Safety phrases:**

Keep locked up and out of the reach of children.  
Keep away from food, drink and animal feedingstuffs.  
When using do not eat or drink.  
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Wear suitable protective clothing, gloves and eye/face protection.  
In case of accident or if you feel unwell, seek medical advice immediately.

**National regulations:**

All components in this formulation are listed in the EPA TSCA chemical inventory. They comply with applicable rules and orders of the regulations.

**Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

<b>Section 16: OTHER INFORMATION</b>
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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing MSDS:** Comptek Structural Composites, Inc.

**Contact:**

Larry Cercone  
303-531-5758

MATERIAL SAFETY DATA SHEET

TCR MSDS-001  
Issue 2

Page 1 of 4

Latest Revision: February 3, 2009

<b>TCR COMPOSITES</b> 219 North 530 West Ogden, UT 84404	<b>Emergency Phone No.</b> (801) 622-3800 <b>Product Information</b> (800) 827-3746
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Section 1.

**CHEMICAL PRODUCT IDENTIFICATION**

**NAME:** TCR™ Prepregs containing the following epoxy resin systems:

UF3323	UF3354	UF3372	TR1103
UF3325	UF3357	UF3374	
UF3339	UF3360	UF3380	
UF3350	UF3362	UF3393	
UF3352	UF3366	UF3395	

Section 2.

**COMPOSITION AND INFORMATION ON INGREDIENTS**

Ingredients	CAS #	Percent	PEL (TWA)	STEL	TLV
Epoxy resin <sup>1</sup>	*	*	NE	NE	NE
Prepreg material <sup>2</sup>	*	*	NE	NE	NE

NE: Not established.  
 \* CAS #s and percentage are Proprietary/trade secret.  
<sup>1</sup> The chemical identities of this composition are being withheld as trade secrets in accordance with 29 CFR 1910.1200(i) and 29 CFR 1910.1200 Appendix D. The chemical identities will be disclosed to health professionals in a medical emergency in accordance with 29 CFR 1910.1200(i)(2). Non-emergency requests will be considered in accordance with 29 CFR 1910.1200 paragraph (i).  
<sup>2</sup> Prepreg material can be in the following forms: Tow, Roving, 0-90 Degree Woven Cloth, and Unidirectional Cloth, and other broadgoods.

Section 3.

**HAZARDS IDENTIFICATION**

**Exposure Limits:** A Threshold Limit Value (TLV) or Permissible Exposure Limit (PEL) is not established for this formulation.

**Effects of Exposure:** The prepreg material is a low exposure risk under normal operating conditions. Exposed persons (from **inhalation**) may become sensitized, inducing an allergic reaction. Causes mild irritation to the **eyes**. Causes **skin** irritation. May sensitize individuals, causing allergic symptoms. **Ingestion** has no known effects.

**Existing conditions that may be aggravated:** See above.

Section 4. **FIRST AID MEASURES**

**Inhalation:** If any adverse symptoms appear move person to fresh air. If necessary administer artificial respiration or oxygen and contact a physician.

**Eyes:** Flush eyes immediately with water for at least 15 minutes. Contact a physician.

**Skin:** Wash skin with soap and water. Contact a physician if symptoms develop/persist.

**Ingestion:** If ingested, contact a physician.

Section 5. **FIREFIGHTING MEASURES**

**SPECIAL FIRE FIGHTING PROCEDURES:** Protective clothing and (**self-contained breathing apparatus**) should always be used when fighting chemical fires. **Caution:** Open incineration may release highly conductive carbon fibers which present electrical short circuit hazards.

**EXTINGUISHING MEDIA:** Halogenated agents, foam, steam, or water fog.

**UNUSUAL FIRE AND EXPLOSIONS HAZARDS:** Phosphine, CO, CO<sub>2</sub>, NO<sub>x</sub>, and other toxic products may be released during fire.

Section 6. **ACCIDENTAL RELEASE MEASURES**

**Precautions if Container is Damaged:** Rolls of prepreg material should be handled with impervious gloves if packaging is damaged.

Section 7. **HANDLING AND STORAGE**

Store at warehouse ambient temperature in sealed plastic wrap.

Section 8. **EXPOSURE CONTROLS - PERSONAL PROTECTION**

**Ventilation:** Provide sufficient mechanical (general and/or local exhaust) ventilation to limit vapor inhalation.

**Respiratory Protection:** An organic vapor respirator may be necessary in the absence of adequate ventilation. Engineering controls should be implemented to reduce exposure.

**Protective Gloves:** Impervious gloves are recommended for handling the product.

**Eye Protection:** Safety glasses should be worn for all industrial operations.

**Personal Protective Clothing:** Personal protective clothing (i.e., smocks, coveralls, etc.) should be worn. **NOTE:** Protective clothing should be laundered separately from street clothes.

Section 9.

**PHYSICAL AND CHEMICAL PROPERTIES**

**SPECIFIC GRAVITY (H<sub>2</sub>O = 1):** 1.3 - 2.2

**SOLUBILITY IN WATER:** Slight

**VAPOR PRESSURE:** N/A

**EVAPORATION RATE:** N/A

**MELTING POINT:** N/A

**BOILING POINT:** N/A

**APPEARANCE AND COLOR:** The material is slightly tacky with an appearance dominated by a reinforcement fiber. For example, each type of reinforcement fiber may have one of the following color characteristics: (1) Graphite fiber prepreg is a black color, (2) Glass fiber prepreg is a cream color, and (3) Aramid fiber prepreg is a yellow color. Traces of methyl cyclopentadiene dimer CAS# 26472-00-4 and dicyclopentadiene CAS# 77-73-6 have been detected.

**DETECTION METHODS:** None

**pH:** Not applicable.

**FLASHPOINT:** >200°F.

Section 10.

**STABILITY AND REACTIVITY**

**STABILITY:** Stable at room temperature, thermosets at elevated temperatures.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Incompatible with bases, strong oxidizers, acids, amines, and excessive heat.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Incomplete burning can produce phosphine, carbon monoxide, carbon dioxide, oxides of nitrogen, and other harmful products.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**OTHER HAZARDS:** Not known.

Section 11.

**TOXICOLOGICAL INFORMATION**

**ACUTE EFFECTS:** Causes skin and eye irritation. May cause respiratory tract sensitization.

**CHRONIC EFFECTS:** May induce asthmatic or allergic reaction from prior exposure sensitization.

**TARGET ORGAN(S):** Unknown.

Section 12.

**ECOLOGICAL INFORMATION**

Data not yet available.

Section 13.

**DISPOSAL CONSIDERATIONS**

Dispose of in accordance with federal, state, and local regulations. Enclosed-controlled incineration is recommended unless directed otherwise by applicable ordinances.

Section 14.

**TRANSPORTATION INFORMATION**

**TCR™ Prepregs** do not meet any of the DOT definitions of Classes 1-9, ORM-D and elevated temperature materials. Therefore, this material is not regulated by the Hazardous Materials regulations of the United States Department of Transportation.



Section 15.

**REGULATORY INFORMATION**

**TOXIC SUBSTANCES CONTROL ACT (TSCA)** All original components of this Prepreg are registered on the Toxic Substances Control Act Inventory. Any new chemicals that may form during the manufacture of this Prepreg are exempt from Inventory reporting under 40 CFR 720.30(h) as they are incorporated into an article.

Section 16.

**OTHER INFORMATION**

For industrial use only. To the best of our knowledge the information contained herein is correct. All chemicals may present unknown health hazards and must be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Final determination of the suitability of the chemical is the sole responsibility of the user. Users of any chemical should satisfy themselves that the conditions and methods of use assure that the chemical is used safely.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, TO INCLUDE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION CONTAINED HEREIN OR THE CHEMICAL TO WHICH THE INFORMATION REFERS.

Comptek Structural Composites, Inc.  
5500 Flatiron Pkwy., Suite 100  
Boulder, Colorado 80301  
Phone: (303) 531-5758



Effective Date: 2/22/2010

**MATERIAL SAFETY DATA  
SHEET**

MSDS No # : UltraCarbon  
Resin, Part A

**SECTION 1 – PRODUCT IDENTIFICATION**

**Trade Name:** UltraCarbon Resin, Part A

**Chemical Family:** Epoxy Resin

**Intended Use or Product Type:** Intended to be used with Part B component.

**SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS**

<u>INGREDIENT</u>	<u>CAS#</u>	<u>%</u>
Diglycidylether of Bisphenol F	54208-83-8	60-80%
Multifunctional Epoxy Epoxy	T.S.	20-30%

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200) in addition, other substances not Hazardous per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

**SECTION 3 – HAZARDS IDENTIFICATION**

**EYE:** Moderate transient irritation. Possible minor temporary corneal injury.

**SKIN CONTACT:** May cause moderate skin irritation. Sensitizer - may cause allergic skin reaction which can be severe in certain individuals. Not likely to be absorbed in toxic amounts.

**INGESTION:** Low acute oral toxicity.

**INHALATION:** Heating can generate vapors that could cause headaches, nausea, dizziness, and respiratory irritation if inhaled.

**CARCINOGENICITY:** This product contains less than .1% of any substance which is listed as a carcinogen by NTP, IARC, or OSHA.

**NFPA HAZARD RATING**

4 = EXTREME	HEALTH	1
3 = HIGH	FIRE	1
2 = MODERATE	REACTIVITY	0
1 = SLIGHT	SPECIFIC	-
0 = INSIGNIFICANT		

ATTENTION: No representation is made as to the accuracy or correctness of the information contained herein, other than to state that it is presented by this organization in good faith and we believe it to be correct and accurate per the limits of our understanding and training as of the date of first publication. The user or handler of this product is warned to take the most conservative and safest interpretation possible of all information contained herein and to use the most extreme personal protection measures and exposure limitations prudently dictated by the specific usage or handling situation, this MSDS information and good industrial safety and hygiene practices.

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**Effective Date: 2/22/2010**

**MATERIAL SAFETY DATA  
SHEET**

**MSDS No # : UltraCarbon  
Resin, Part A**

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**SECTION 4 – FIRST AID**

**EYES:** Flush eyes with plenty of water for 15 minutes and get medical attention.

**SKIN:** Remove contaminated clothing and wipe excess from skin. Wash with soap and water immediately.

**INGESTION:** Give more than two glasses of water and seek medical attention.

**INHALATION:** Remove to fresh air if effect occurs. Seek medical attention.

**SECTION 5 – FIRE FIGHTING MEASURES**

**FLASH POINT:** > 200°F

**METHOD USED:** Closed Cup

**FLAMMABLE LIMITS**

LFL: not applicable

UFL: not applicable

**EXTINGUISHING MEDIA:** water spray, foam, CO<sub>2</sub>, dry chemical

**FIRE AND EXPLOSION HAZARDS:** none.

**FIRE-FIGHTING EQUIPMENT:** Wear positive pressure self-contained breathing apparatus.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES (see section 15 for regulatory information)**

**ACTION TO TAKE FOR SPILLS/LEAKS:** Soak up in absorbent material and collect in suitable containers. Residual may be removed using steam or hot soapy water. Wear protective gear during clean up.

**SECTION 7 – HANDLING AND STORAGE**

This material may cause sensitization. Do not get in eyes, on skin or clothing. Do not allow contaminated clothing to contact skin. Avoid contact with vapors or fumes.

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**MATERIAL SAFETY DATA  
SHEET**

**MSDS No # : UltraCarbon  
Resin, Part A**

**SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION**

**VENTILATION:** Local exhaust ventilation recommended if generating vapor, mist, or dust. If ventilation is not available, use MSHA or NIOSH approved respirator.

**RESPIRATORY PROTECTION:** None normally necessary. An organic vapor respirator should be considered in areas where spray mist or heated vapors are present.

**SKIN PROTECTION:** For operations where contact can occur, wear impervious gloves (Neoprene).

**EYE PROTECTION:** Use chemical goggles.

**OTHER PROTECTIVE EQUIPMENT:** For operations where contact can occur, coveralls, apron, and rubber foot coverings are recommended. A safety eye wash facility should be available.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

**BOILING POINT:** not applicable

**VAP PRESS:** not applicable

**VAP DENSITY:** not applicable

**SOL. IN WATER:** none

**SP. GRAVITY:** 1.20

**APPEARANCE:** amber colored liquid

**ODOR:** faint epoxy odor

**SECTION 10 – STABILITY AND REACTIVITY**

**STABILITY: (CONDITIONS TO AVOID)** Excess heat over long periods of time degrades resin.

**INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID)** Can react vigorously with strong Lewis acid, strong Lewis base, uncontrolled primary and secondary amines.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, aldehydes, nitrogen oxides and compounds.

**HAZARDOUS POLYMERIZATION:** Will not occur by itself, but masses more than 1 pound of product plus aliphatic amine will cause irreversible polymerization with considerable heat buildup.

**ATTENTION:** No representation is made as to the accuracy or correctness of the information contained herein, other than to state that it is presented by this organization in good faith and we believe it to be correct and accurate per the limits of our understanding and training as of the date of first publication. The user or handler of this product is warned to take the most conservative and safest interpretation possible of all information contained herein and to use the most extreme personal protection measures and exposure limitations prudently dictated by the specific usage or handling situation, this MSDS information and good industrial safety and hygiene practices.

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**MATERIAL SAFETY DATA  
SHEET**

MSDS No # : UltraCarbon  
Resin, Part A

**SECTION 11 – TOXICOLOGICAL INFORMATION**

NO INFORMATION AVAILABLE

**SECTION 12 – ECOLOGICAL INFORMATION**

ADDITIONAL INFORMATION: NO ECOLOGICAL INFORMATION AVAILABLE

**SECTION 13 – DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL METHOD: DISPOSE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

**SECTION 11 – TRANSPORT INFORMATION**

DOT:

PROPER SHIPPING NAME: Not Regulated  
HAZARD CLASS:  
IDENTIFICATION NUMBER:  
LABEL REQUIRED:

**SECTION 15 – REGULATORY INFORMATION**

STATUS ON SUBSTANCE LIST: The concentrations shown in this document are maximum or ceiling levels (expressed in weight %, unless otherwise specified) to be used for regulations. Trade Secrets are indicated by "TS".

**FEDERAL EPA**

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, and LIABILITY ACT of 1980 (CERCLA): requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQ's) in 40 CFR 302.4 . Components present in this product at level which could require reporting under the statute are:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% By Weight</u>	<u>RQ</u>
NONE			

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**MATERIAL SAFETY DATA  
SHEET**

**MSDS No # : UltraCarbon  
Resin, Part A**

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SUPERFUND AMENDMENTS and REAUTHORIZATION ACT of 1986 (SARA) TITLE III:

**Sections 301-304** require emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (Rqs) in 40 CFR 355. Components present in this product at a level which could require reporting under this statute are:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% By Weight</u>	<u>RQ</u>
NONE			

**Sections 311-312** require products be reviewed and applicable EPA Hazard Definitions be identified and made known.

**EPA HAZARD CLASSIFICATIONS:**

Acute Hazard – Yes  
Chronic Hazard – No  
Fire Hazard – No  
Pressure Hazard – No  
Reactive Hazard – No

**Section 313** requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDS's that are copied and distributed for this material. Components present in this product at level which could require reporting under the statute are:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% By Weight</u>	<u>RQ</u>
NONE			

If you are unsure if you must report more information, call the EPA Emergency Planning and Right-To-Know Hot Line: 800-535-0202 or 202-479-2449.

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Effective Date: 2/22/2010

**MATERIAL SAFETY DATA  
SHEET**

MSDS No # : UltraCarbon  
Fast, Part B

**SECTION 1 – PRODUCT IDENTIFICATION**

**Trade Name:** UltraCarbon Fast, Part B

**Chemical Family:** Epoxy Hardener

**Intended Use or Product Type:** Intended to be used with Part A component

**SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS**

<u>INGREDIENT</u>	<u>CAS#</u>	<u>%</u>
Cylcoaliphatic amine	2855-13-2	60-95%
Amine	TS	5-40%

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200) in addition, other substances not Hazardous per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

**SECTION 3 – HAZARDS IDENTIFICATION**

**WARNING STATEMENT**

**CORROSIVE - CAUSES EYE AND SKIN BURNS  
HARMFUL OR FATAL IF SWALLOWED  
HARMFUL IF ABSORBED THROUGH SKIN  
MAY CAUSE RESPIRATORY TRACT IRRITATION  
MAY CAUSE LUNG INJURY IF SWALLOWED AND ASPIRATED**

**EYES:** Vapor especially when heated can cause irritation, redness, tearing, blurred vision; liquid can cause severe or permanent eye damage.

**SKIN CONTACT:** Causes severe irritation and burns. May cause allergic skin reaction. Prolonged or widespread skin contact may result in absorption of potentially harmful amount of material.

**INGESTION:** Causes burning of mouth, throat, and stomach with abdominal and chest pain, nausea, vomiting, diarrhea, and thirst. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

**INHALATION:** Heating can generate vapors that could cause irritation of respiratory tract. Prolonged overexposure may result in lung damage.

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**MATERIAL SAFETY DATA  
SHEET**

**MSDS No # : UltraCarbon  
Fast, Part B**

CARCINOGENICITY: This product contains less than .1% of any substance, which is listed as a carcinogen by NTP, IARC, or OSHA.

**NFPA HAZARD RATING**

4 = EXTREME	HEALTH	3
3 = HIGH	FIRE	1
2 = MODERATE	REACTIVITY	0
1 = SLIGHT	SPECIFIC	-
0 = INSIGNIFICANT		

**SECTION 4 – FIRST AID**

**EYES:** Flush eyes with large amounts of water for 15 minutes, lifting upper and lower lids occasionally. Get medical attention immediately. If physician is not immediately available, continue flushing with water. Do not use chemical antidote.

**SKIN:** Immediately flush skin with large amounts of running water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse.

**INGESTION:** If patient is conscious and can swallow, give two glasses of water (16 oz.). Do not induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious or convulsing person.

**INHALATION:** Remove to fresh air if effect occurs. If burning sensation develops in throat or chest, or shortness of breath occurs, get immediate medical attention.

**SECTION 5 – FIRE FIGHTING MEASURES**

**FLASH POINT:** > 200°F  
**METHOD USED:** PMCC  
**FLAMMABLE LIMITS**  
LFL: not data  
UFL: not data

**EXTINGUISHING MEDIA:** foam, CO<sub>2</sub>, dry chemical. Water or foam may cause frothing which can be violent, especially if sprayed into containers of hot burning liquid.

**FIRE AND EXPLOSION HAZARDS:** Toxic vapors may be formed nitriles, cyanic acid, isocyanates, cyanogens, and amides.

**FIRE-FIGHTING EQUIPMENT:** Wear positive pressure self-contained breathing apparatus.

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**MATERIAL SAFETY DATA  
SHEET**

**MSDS No # : UltraCarbon  
Fast, Part B**

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**SECTION 6 – ACCIDENTAL RELEASE MEASURES (see section 15 for regulatory information)**

**ACTION TO TAKE FOR SPILLS/LEAKS:** Ventilate area. Avoid breathing vapor. Use self-contained breathing apparatus for large spills or confined areas. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes, or clothing.

**SECTION 7 – HANDLING AND STORAGE**

Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided. Eye wash and safety shower should be available when this product is handled or used.

**SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION**

**VENTILATION:** Local exhaust ventilation recommended if generating vapor, mist, or dust. If ventilation is not available, use MSHA or NIOSH approved respirator.

**RESPIRATORY PROTECTION:** None normally necessary. Use respirator approved by MSHA or NIOSH if spray, mist or heated vapors are generated.

**SKIN PROTECTION:** Wear protective Nitrile rubber gloves. Impervious suits, gloves, and rubber boots are recommended when handling large quantities.

**EYE PROTECTION:** Use chemical goggles and full face shield are advised. Do not wear contact lenses.

**OTHER PROTECTIVE EQUIPMENT:** For operations where contact can occur, coveralls, apron, and rubber foot coverings are recommended. A safety eye wash facility should be available.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

**BOILING POINT:** not applicable

**VAP PRESS:** not applicable

**VAP DENSITY:** heavier than air

**SOL. IN WATER:** none

**SP. GRAVITY:** 1.05

**APPEARANCE:** clear liquid

**ODOR:** ammonia odor

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**Effective Date: 2/22/2010**

**MATERIAL SAFETY DATA  
SHEET**

**MSDS No # : UltraCarbon  
Fast, Part B**

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**SECTION 10 – STABILITY AND REACTIVITY**

STABILITY: (CONDITIONS TO AVOID) Stable

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Can react vigorously with acids. Do not add or formulate with nitrites.

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic levels of ammonia, combustion products of nitrogen, carbon monoxide, carbon dioxide, irritating aldehydes and ketones may be formed on burning in limited air supply.

HAZARDOUS POLYMERIZATION: Will not occur by itself.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

NO INFORMATION AVAILABLE

**SECTION 12 – ECOLOGICAL INFORMATION**

ADDITIONAL INFORMATION: NO ECOLOGICAL INFORMATION AVAILABLE

**SECTION 13 – DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL METHOD: DISPOSE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

**SECTION 11 – TRANSPORT INFORMATION**

DOT:

Proper Shipping Name: Corrosive Liquid N.O.S, (Alkyl Polyamine)

Hazard Class: Corrosive Material, 8

Identification Number: UN 1760, PG III

Label Required: Corrosive

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Effective Date: 2/22/2010

MATERIAL SAFETY DATA  
SHEET

MSDS No # : UltraCarbon  
Fast, Part B

**SECTION 15 – REGULATORY INFORMATION**

STATUS ON SUBSTANCE LIST: The concentrations shown in this document are maximum or ceiling levels (expressed in weight %, unless otherwise specified) to be used for regulations. Trade Secrets are indicated by "TS".

**FEDERAL EPA**

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, and LIABILITY ACT of 1980 (CERCLA); requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQ's) in 40 CFR 302.4 . Components present in this product at level, which could require reporting under the statute are:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% By Weight</u>	<u>RQ</u>
NONE			

SUPERFUND AMENDMENTS and REAUTHORIZATION ACT of 1986 (SARA) TITLE III:

**Sections 301-304** require emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (Rqs) in 40 CFR 355. Components present in this product at a level, which could require reporting under this statute are:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% By Weight</u>	<u>RQ</u>
NONE			

**Sections 311-312** require products be reviewed and applicable EPA Hazard Definitions be identified and made known.

EPA HAZARD CLASSIFICATIONS:

Acute Hazard      Chronic Hazard      Fire Hazard      Pressure Hazard      Reactive Hazard

**Section 313** requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDS's that are copied and distributed for this material. Components present in this product at level, which could require reporting under the statute are:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% By Weight</u>	<u>RQ</u>
NONE			

If you are unsure if you must report more information, call the EPA Emergency Planning and Right-To-Know Hot Line: 800-535-0202 or 202-479-2449.

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Effective Date: 2/22/2010

**MATERIAL SAFETY DATA  
SHEET**

MSDS No # : UltraCarbon  
Slow, Part B

**SECTION 1 – PRODUCT IDENTIFICATION**

**Trade Name:** UltraCarbon Slow, Part B

**Chemical Family:** Epoxy Hardener

**Intended Use or Product Type:** Intended to be used with Part A component

**SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS**

<u>INGREDIENT</u>	<u>CAS#</u>	<u>%</u>
Amine	TS	40-75%
Cyclohexanediamine	1761-71-3	25-60%

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200) in addition, other substances not Hazardous per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

**SECTION 3 – HAZARDS IDENTIFICATION**

**WARNING STATEMENT**

**CORROSIVE - CAUSES EYE AND SKIN BURNS  
HARMFUL OR FATAL IF SWALLOWED  
HARMFUL IF ABSORBED THROUGH SKIN  
MAY CAUSE RESPIRATORY TRACT IRRITATION  
MAY CAUSE LUNG INJURY IF SWALLOWED AND ASPIRATED**

**EYES:** Vapor especially when heated can cause irritation, redness, tearing, blurred vision; liquid can cause severe or permanent eye damage.

**SKIN CONTACT:** Causes severe irritation and burns. May cause allergic skin reaction. Prolonged or widespread skin contact may result in absorption of potentially harmful amount of material.

**INGESTION:** Causes burning of mouth, throat, and stomach with abdominal and chest pain, nausea, vomiting, diarrhea, and thirst. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

**INHALATION:** Heating can generate vapors that could cause irritation of respiratory tract. Prolonged overexposure may result in lung damage.

**CARCINOGENICITY:** This product contains less than .1% of any substance, which is listed as a carcinogen by NTP, IARC, or OSHA.

ATTENTION: No representation is made as to the accuracy or correctness of the information contained herein, other than to state that it is presented by this organization in good faith and we believe it to be correct and accurate per the limits of our understanding and training as of the date of first publication. The user or handler of this product is warned to take the most conservative and safest interpretation possible of all information contained herein and to use the most extreme personal protection measures and exposure limitations prudently dictated by the specific usage or handling situation, this MSDS information and good industrial safety and hygiene practices.



**Effective Date: 2/22/2010**

**MATERIAL SAFETY DATA  
SHEET**

**MSDS No # : UltraCarbon  
Slow, Part B**

**NFPA HAZARD RATING**

4 = EXTREME	HEALTH	3
3 = HIGH	FIRE	1
2 = MODERATE	REACTIVITY	0
1 = SLIGHT	SPECIFIC	-
0 = INSIGNIFICANT		

**SECTION 4 – FIRST AID**

**EYES:** Flush eyes with large amounts of water for 15 minutes, lifting upper and lower lids occasionally. Get medical attention immediately. If physician is not immediately available, continue flushing with water. Do not use chemical antidote.

**SKIN:** Immediately flush skin with large amounts of running water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse.

**INGESTION:** If patient is conscious and can swallow, give two glasses of water (16 oz.). Do not induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious or convulsing person.

**INHALATION:** Remove to fresh air if effect occurs. If burning sensation develops in throat or chest, or shortness of breath occurs, get immediate medical attention.

**SECTION 5 – FIRE FIGHTING MEASURES**

**FLASH POINT:** > 200°F

**METHOD USED:** PMCC

**FLAMMABLE LIMITS**

LFL: not data

UFL: not data

**EXTINGUISHING MEDIA:** foam, CO<sub>2</sub>, dry chemical. Water or foam may cause frothing which can be violent, especially if sprayed into containers of hot burning liquid.

**FIRE AND EXPLOSION HAZARDS:** Toxic vapors may be formed nitriles, cyanic acid, isocyanates, cyanogens, and amides

**FIRE-FIGHTING EQUIPMENT:** Wear positive pressure self-contained breathing apparatus.

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**MATERIAL SAFETY DATA  
SHEET**

**MSDS No # : UltraCarbon  
Slow, Part B**

**SECTION 6 – ACCIDENTAL RELEASE MEASURES (see section 15 for regulatory information)**

**ACTION TO TAKE FOR SPILLS/LEAKS:** Ventilate area. Avoid breathing vapor. Use self-contained breathing apparatus for large spills or confined areas. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes, or clothing.

**SECTION 7 – HANDLING AND STORAGE**

Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided. Eye wash and safety shower should be available when this product is handled or used.

**SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION**

**VENTILATION:** Local exhaust ventilation recommended if generating vapor, mist, or dust. If ventilation is not available, use MSHA or NIOSH approved respirator.

**RESPIRATORY PROTECTION:** None normally necessary. Use respirator approved by MSHA or NIOSH if spray, mist or heated vapors are generated.

**SKIN PROTECTION:** Wear protective Nitrile rubber gloves. Impervious suits, gloves, and rubber boots are recommended when handling large quantities.

**EYE PROTECTION:** Use chemical goggles and full face shield are advised. Do not wear contact lenses.

**OTHER PROTECTIVE EQUIPMENT:** For operations where contact can occur, coveralls, apron, and rubber foot coverings are recommended. A safety eye wash facility should be available.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

**BOILING POINT:** not applicable

**VAP PRESS:** not applicable

**VAP DENSITY:** heavier than air

**SOL. IN WATER:** none

**SP. GRAVITY:** 1.05

**APPEARANCE:** clear liquid

**ODOR:** ammonia odor

**ATTENTION:** No representation is made as to the accuracy or correctness of the information contained herein, other than to state that it is presented by this organization in good faith and we believe it to be correct and accurate per the limits of our understanding and training as of the date of first publication. The user or handler of this product is warned to take the most conservative and safest interpretation possible of all information contained herein and to use the most extreme personal protection measures and exposure limitations prudently dictated by the specific usage or handling situation, this MSDS information and good industrial safety and hygiene practices.

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**Effective Date: 2/22/2010**

**MATERIAL SAFETY DATA  
SHEET**

**MSDS No # : UltraCarbon  
Slow, Part B**

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**SECTION 10 – STABILITY AND REACTIVITY**

STABILITY: (CONDITIONS TO AVOID) Stable

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Can react vigorously with acids. Do not add or formulate with nitrites.

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic levels of ammonia, combustion products of nitrogen, carbon monoxide, carbon dioxide, irritating aldehydes and ketones may be formed on burning in limited air supply.

HAZARDOUS POLYMERIZATION: Will not occur by itself.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

NO INFORMATION AVAILABLE

**SECTION 12 – ECOLOGICAL INFORMATION**

ADDITIONAL INFORMATION: NO ECOLOGICAL INFORMATION AVAILABLE

**SECTION 13 – DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL METHOD: DISPOSE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

**SECTION 11 – TRANSPORT INFORMATION**

DOT:

Proper Shipping Name: Corrosive Liquid N.O.S, (Alkyl Polyamine)

Hazard Class: Corrosive Material, 8

Identification Number: UN 1760, PG III

Label Required: Corrosive

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ATTENTION: No representation is made as to the accuracy or correctness of the information contained herein, other than to state that it is presented by this organization in good faith and we believe it to be correct and accurate per the limits of our understanding and training as of the date of first publication. The user or handler of this product is warned to take the most conservative and safest interpretation possible of all information contained herein and to use the most extreme personal protection measures and exposure limitations prudently dictated by the specific usage or handling situation, this MSDS information and good industrial safety and hygiene practices.



Effective Date: 2/22/2010

MATERIAL SAFETY DATA  
SHEET

MSDS No # : UltraCarbon  
Slow, Part B

**SECTION 15 – REGULATORY INFORMATION**

STATUS ON SUBSTANCE LIST: The concentrations shown in this document are maximum or ceiling levels (expressed in weight %, unless otherwise specified) to be used for regulations. Trade Secrets are indicated by "TS".

**FEDERAL EPA**

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, and LIABILITY ACT of 1980 (CERCLA): requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQ's) in 40 CFR 302.4 . Components present in this product at level, which could require reporting under the statute are:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% by Weight</u>	<u>RQ</u>
NONE			

SUPERFUND AMENDMENTS and REAUTHORIZATION ACT of 1986 (SARA) TITLE III:

**Sections 301-304** require emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (Rqs) in 40 CFR 355. Components present in this product at a level, which could require reporting under this statute are:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% by Weight</u>	<u>RQ</u>
NONE			

**Sections 311-312** require products be reviewed and applicable EPA Hazard Definitions be identified and made known.

EPA HAZARD CLASSIFICATIONS:

Acute Hazard  
Chronic Hazard  
Fire Hazard  
Pressure Hazard  
Reactive Hazard

**Section 313** requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDS's that are copied and distributed for this material. Components present in this product at level which could require reporting under the statute are:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% by Weight</u>	<u>RQ</u>
NONE			

If you are unsure if you must report more information, call the EPA Emergency Planning and Right-To-Know Hot Line: 800-535-0202 or 202-479-2449.