Section 1: Product and Company Identification

1.1 Product Identifier

Trade Name	Epoxytec CPP, A Component
Product Number	RC3-A
Product Description	Epoxy Formulation
Recommended Use	Protective Coating

1.2 Details of the Supplier of the Safety Data Sheet

Company	EPOXYTEC INTL, INC. 3000 N 29 CT HOLLYWOOD, FLORIDA 33023 Telephone (General): 954-961-4656

1.3 Emergency Telephone Number

3E Company Contract # 14738	N. America/S. America (+)1.760.476.3962 Europe (+)1.760.476.3962 Asia Pacific (+)1.760.476.3960 Middle East/Africa (+)1.760.476.3959

Section 2: Hazard(s) Identification

The product is classified and labeled according to the Globally Harmonized System (GHS) Classification in accordance with 29 CFR 1910 (OSHA HCS)

2.1. Classification of the mixture

Contains Diglycidyl ether of Bisphenol A (Number average MW <= 700)
Silica based materials
Other inorganic fillers
Fiber

Carcinogens: No carcinogens as a mixture. Any and all carcinogens reported here for pigments or fillers are related to airborne dust exposure only, they are not known to be hazardous after blended into a liquid. If product is machined, sanded or grinded, in an airborne dry form, these substances can cause severe lung diseases if you breathe their dusts, see Section 8 for recommended respiratory protection.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment, Category 1, H410.

2.2. GHS Label elements, including precautionary statements

Pictogram	Signal Word	Hazard Category	Hazard Statement
	Warning	1.2	Causes skin irritation Causes serious eye irritation May cause an allergic skin reaction
	Warning	2	Toxic to aquatic life with long lasting effects

Signal word	Code	Warning
Hazard Statements	H315 H317 H319 H320 H335 H411	Causes skin irritation May cause an allergic skin reaction Causes serious eye irritation Causes eye irritation May cause respiratory irritation Toxic to aquatic life with long lasting effects.
Precautionary Statements	P201 P202 P260 P264 P270 P273 P280 P391	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves, eye and face protection. Collect spillage
Supplementary Precautionary Statements	P308 + P313 P314 P303 + P361 + P353 P305 + P351 + P338 P337 + P313 P362 P340	If exposed or concerned: Get medical advice/ attention. Get medical advice/ attention if you feel unwell. If ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse. Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Supplemental label information	P302+352 P332+313	IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
Storage/Disposal	P501 P405 P404 + P233	Dispose of contents/ container to an approved waste disposal plant. Keep container tightly closed. Store in a well-ventilated place. Keep container tightly closed.

Section 3: Composition/Information on Ingredients

Chemical Characterization: Mixture
Description Mixture: Consisting of the following components
Dangerous components: Contains other Trade Secret Component(s). For Trade Secret information refer to 29 CFR 1910.120.

Materials	CAS Number	Percentage, %
Diglycidyl ether of Bisphenol A (Number average MW <= 700)	25085-99-8	40-70
Silica (Quartz)	14808-60-7	10-20
Silica (Amorphous)	7631-86-9	1-5
Other Inorganics	Proprietary*	10-25
Fiber	Proprietary*	1-10

**: Chemical Identity and/or exact percentage (concentration) of composition has been withheld as a trade secret*

Section 4: First Aid Measures

4.1 Description of first aid measures

General advice
Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. If product is machined, sanded or grinded, in an airborne dry form, these substances can cause severe lung diseases if you breathe their dusts, see Section 8 for recommended respiratory protection.
If inhaled,
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Remove clothing contaminated with epoxy resin system chemicals and immediately wash off any epoxies that get on your skin. Pay particular attention to your fingernails and the area around the nail.
In case of eye contact
Flush eyes with water at least 15 minutes. Consult a physician
If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2)

Section 5: Firefighting Measures

5.1. Extinguishing media
Fire can be extinguished using: Foam. Alcohol resistant foam. Dry chemicals, sand, dolomite etc.

5.2. Special hazards arising from the substance or mixture
Hazardous combustion products
Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors and inorganic fillers such as Silicon oxides.

5.3. Advice for firefighters
Special Fire Fighting Procedures:
Use water to keep fire exposed containers cool and disperse vapours.

Protective equipment for fire-fighters:
Wear self-contained breathing apparatus and full protective clothing in case of fire.

Section 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures
Use personal protective clothing as described in Section 8 of this safety data sheet.
6.2. Environmental precautions
Do not let product enter drains, do not allow to sewers/surface or ground water. Prevent leakage or spillage.
6.3. Methods and material for containment and cleaning up
Absorb with liquid-binding material (sand, earth, vermiculate, and universal binders)
Wear necessary protective equipment. Wash thoroughly after dealing with a spillage.
6.4. Reference to other sections
Wear protective clothing and niosh/msha approved self-contained breathing apparatus as described in Section 8 of this safety data sheet.
See section 11 for additional information on health hazards.
For waste disposal, see section 13.

Section 7: Handling and Storage

7.1 Precautions for safe handling
Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Use soap and water or a commercial hand cleaner. Don't use solvents to clean your hands; they remove the natural protective oils from your skin and leave your skin dry and irritated. After washing, use a skin conditioner or lotion to help keep the skin on your hands in good condition.
Handle with good mechanical ventilation and local exhaust. Avoid inhalation of vapor or mist. For precautions see section 2.2. Avoid use of electric band heaters. Failures of electric band heaters have been reported to cause drums of epoxy resin to catch fire.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place, away from heat, and strong oxidizers.
Recommended storage temperature 35-109 °F (2-43 °C).
Shelf life: Use within storage temperature, 24 months.

Section 8: Exposure Controls/Personal Protection

Additional Information for the Limit Values Due to the wetted form, the limit values for the dust form listed are not required. The limit values must be followed strictly if dust form occurs during any of the use. As a classified Carcinogen, there may be NO safe level of exposure; reduce all contact to the lowest possible level.

Other Engineering Measures or Controls Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below

recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

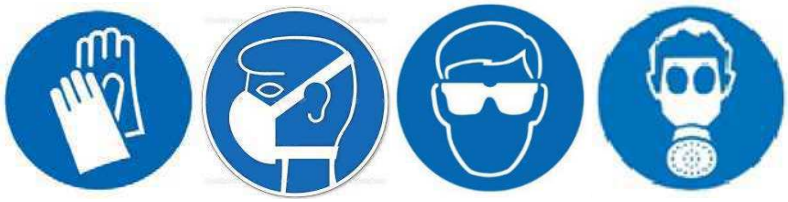
Some of the substances listed are present in concentration of 1% or greater, or 0.1% if cited as a potential Carcinogen in the OSHA hazards communication standard.

Silica (quartz), CAS # 14808-60-7
ACGIH, TLV, - TWA: 0.025 mg/m^3, A2
OSHA, Occupational Exposure Limits, PEL, -TWA 10mg/m^3

Other Inorganics
ACGIH TLV, -TWA: 10 mg/m^3
OSHA, PEL,- TWA: 15mg/m^3

Fiber
ACGIH TLV, -TWA: 10 mg/m^3
NIOSH Recommended Exposure Limits TWA: 15mg/m^3

Personal Protective Equipment



Respiratory Protection
In case of inadequate ventilation wear respiratory protection. If cured product is machined, sanded or grinded, wear particulate respirators or other air-purifying respirators based on the specific airborne concentration found in the workplace.

Hand Protection
Wear chemical-resistant gloves such as: Nitrile, neoprene, and butyl. Gloves should conform to EN374

Eye Protection
Chemical goggles or safety glasses with side shields

Body Protection
If frequent or prolonged skin contact with epoxy resin systems is unavoidable, protective equipment such as gloves, goggles should be worn. Protective clothing should be made of a material that will protect you from the chemicals in the epoxy resin system you use.

Hygiene measures
Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. When using do not eat, drink or smoke.

Section 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties of Mixture

Appearance

Form	: Paste
Color	: Gray
Odor	: Mild epoxy odor
Density	: 1.1 g/cm^3
pH	: Not established
Boiling Point (deg. C)	: Not established

Basic Physical and Chemical Properties of Components

Diglycidyl ether of Bisphenol A, CAS # 25085-99-8	
Physical State: Viscous, Liquid	Flash Point: Closed Cup 264 - 268 °C (507 - 514 °F)
Color: Colorless to yellow	Specific Gravity: (H_2O = 1) 1.16 20 °C/20 °C Literature
Odor: Odorless to mild	Solubility in water (by weight): 5.4 - 8.4 mg/l @ 20 °C
Boiling Point (760 mmHg): 320 °C (608 °F)	Liquid Density: 1.16 g/cm^3 at 25 °C
Melting Point: Not applicable	Freezing Point: No test data available
Silica (amorphous), CAS # 7631-86-9	
Physical State: Powder	Melting Point: > 2930 °F/1700 °C
Color: White	Flammability: Not flammable
Odor: Odorless	Vapour pressure: Not applicable
Silica (quartz), CAS # 14808-60-7	
Physical State: Powder	Melting Point: 2930 °F/1710 °C
Color: White	Boiling Point: 4046 °F/2230 °C
Odor: Odorless	Flash Point: Fully oxidized, will not burn
Other Inorganics	
Physical State: Powder	Melting Point: 3349 °F/ 1843 °C
Color: White	Boiling Point: 5432 °F/ 3000 °C
Odor: Odorless	Flash Point: does not flash

Section 10: Stability and Reactivity

Reactivity
No dangerous reaction known under conditions of normal use.
Chemical Stability
Stable under recommended storage conditions. See Storage, Section 7.
Thermal Decomposition and Conditions to be avoided
Avoid short term exposures to temperatures above 300 °C (572 °F). Avoid prolonged exposure to temperatures above 250 °C (482 °F). Potentially violent decomposition can occur above 350 °C (662 °F). Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid.
Incompatible materials
Avoid contact with oxidizing materials. Avoid contact with: acids, bases and oxidizing agents such as fluorine, chlorine. Avoid unintended contact with amines.
Hazardous Decomposition Products
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.

Possibility of Hazardous Reactions
Polymerization will not occur by itself. Masses of more than one pound (0.5 kg) of product plus an aliphatic amine will cause irreversible polymerization with considerable heat build-up.

Section 11: Toxicological Information

Skin Contact
Contact may cause moderate skin irritation with local redness.

Eye contact
May cause moderate eye irritation.

Respiratory
No relevant data found.

Toxicological information on ingredients:

Diglycidyl ether of Bisphenol A (Number average MW <= 700), CAS #: 25085-99-8

Acute oral toxicity: LD50, rat > 15,000 mg/kg
Acute dermal toxicity: LD50, rabbit 23,000 mg/kg
Acute inhalation toxicity: No data available

Silica (Quartz), CAS #: 14808-60-7

Acute oral toxicity: LD50: 3,160 mg/kg, rat
Inhalation: No data available
Dermal: No data available
Carcinogenicity - Rat - Inhalation
Tumorigenic: Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration:Tumors.

Silica (Amorphous), CAS #: 7631-86-9

Acute oral toxicity: LD> 10.000 mg/kg, rat;
Acute dermal toxicity: LD> 5.00 mg/kg, rabbit
Acute inhalation toxicity: LD > 0.139 mg/l, rat

Other Inorganics

High Vapor concentrations resulting from heating or spraying can cause respiratory tract irritation
LC50: >6.82mg/ (dust), rat, 4 hours

Fiber

Acute oral toxicity: LD 50 - > 5,000 mg/kg, rat
Acute dermal toxicity: LD50 - > 2,000 mg/kg, rabbit

Section 12: Ecological Information

Acute inhalation toxicity: No data available

OVERVIEW: No ecological information available on the specific mixture.

Eco toxicological data have not been determined for this product. The information is given below is based on a knowledge of the components and ecotoxicology of similar components.

No levels of volatile organic compound emissions are expected at ambient temperatures and pressure; however, higher levels of VOC and low molecular weight hydrocarbons may be emitted at cure temperatures.

Mobility in soil: Paste insoluble in water.

Diglycidyl ether of Bisphenol A

Toxicity
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).
Fish Acute & Prolonged Toxicity
LC50, Oncorhynchus mykiss (rainbow trout), semi-static test, 96 h: 2 mg/l
Aquatic Invertebrate Acute Toxicity
EC50, Daphnia magna (Water flea), static test, 48 h, immobilization: 1.8 mg/l
Aquatic Plant Toxicity
ErC50, Scenedesmus capricornutum (fresh water algae), static test, Growth rate inhibition, 72 h: 11 mg/l
Toxicity to Micro-organisms
IC50; Bacteria, 18 h: > 42.6 mg/l
Aquatic Invertebrates Chronic Toxicity Value
Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, NOEC: 0.3 mg/l

Silica
Acute water flea toxicity: EC 50 (24 h) > 1.000 mg/l. Specie : Daphnia magna.
Acute fish toxicity: LC 0 (96h) > 10000 mg/l

Section 13: Disposal Considerations

Do not dump into any sewers, on the ground, or into any body of water. For disposal of residual product, mix by weight 5 parts Part A with 1 parts Part B. Allow mix to solidify in well ventilated area or outdoors. Regulations may vary in different locations. Dispose of in accordance with all applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Empty containers may contain hazardous residues. Dispose of containers with care. Dispose of in accordance with all applicable local, state and national regulations.

Section 14: Transport Information

DOT
Not regulated for transport

IMDG
Basic Shipping Requirements:
Proper Shipping Name: Environmentally Hazardous Substance, Paste, N.O.S.
Technical Name: Diglycidyl ether of Bisphenol A
Hazard Class: 9

ID Number: UN3077
Packing Group: PG III

IMO
Proper Shipping Name: Environmentally Hazardous Substance, Paste, N.O.S.
Marine pollutant: Yes
Product Name: Diglycidyl ether of Bisphenol A
Hazard Class: 9
ID Number: UN3077
Packing Group: PG III

ICAO/IATA
Proper Shipping Name: Environmentally Hazardous Substance, Paste, N.O.S.
Technical Name: Diglycidyl ether of Bisphenol A
Hazard Class: 9
ID Number: UN3077
Packing Group: PG III
Cargo Packing Instruction: 964
Passenger Packing Instruction: 964

Section 15: Regulatory Information

OSHA Hazard Communication Standard
Epoxy is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200.

Superfund Amendments and Reauthorization Act (SARA) of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312 (Hazardous Chemical Storage Reporting Requirements)
Acute Health Hazard

Diglycidyl ether of Bisphenol A
Immediate (Acute) Health Hazard: Yes, A
Delayed (Chronic) Health Hazard: No
Fire Hazard: No
Reactive Hazard: No
Sudden Release of Pressure Hazard: No

Silica (Amorphous)
Immediate (Acute) Health Hazard: Yes, A
Delayed (Chronic) Health Hazard: Yes, C

Silica (Quartz), TiO_2, Halloysite nanoclay
Delayed (Chronic) Health Hazard: Yes, C

Superfund Amendments and Reauthorization Act (SARA) of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313 (Toxic Chemical Release Inventory)

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components
Fiber

New Jersey Right To Know Components
Fiber

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):
Chemicals known to cause cancer: 14808-60-7/Quartz (SiO_2)
Chemicals known to cause reproductive toxicity: None of the ingredients is listed.

(DSL) Canada Domestic Substance List:
All components of this product are on the DSL (Canada Domestic Substance List) or are exempt from DSL requirements.

Cancerogenity categories
EPA: None of the ingredients is listed.
IARC: 14808-60-7 Quartz (SiO_2)
NTP: 14808-60-7 Quartz (SiO_2)

Section 16: Other Information

Contains epoxy constituents and inorganic fillers. See information supplied by the manufacturer.

HMIS Rating (Scale 0-4)
Health hazard: 2
Flammability: 1
Reactivity Hazard: 1

NFPA Rating (Scale 0-4)
Health hazard: 2
Flammability Hazard: 1
Reactivity Hazard: 1

Abbreviations and acronyms

A	*Acute Health Hazard*
A2	*Suspected human carcinogen.*
ACGIH	*Industrial Hygienists Suggest Exposure Limits*
C	*Chronic Health Hazard*
EPA	*Environmental Protection Agency*
F	*Fire Hazard*
DOT	*Federal Department of Transportation*
DSL	*Domestic Substance List*
HMIS	*Hazardous Material Identification System*
IARC	*International Agency for Research on Cancer*
IATA	*The International Air Transport Association*
ICAO	*International Civil Aviation Organization*
IMDG	*International Maritime Dangerous Goods*
IMO	*International Maritime Organization*
LD50/LC0	*Lethal Concentration/Dose, 50 percent*
NFPA	*National Fire Protection Association*
NIOSH	*National Institute for Occupational Safety and Health*
NTP	*National Toxicology Program*
OSHA	*Occupational Safety and Health*
PELs	*Permissible Exposure Limits*
R	*Reactive Hazard*
S	*Sudden Release of Pressure Hazard*
SARA	*Superfund Amendments and Reauthorization Act*
TLV	*Threshold Limit Value,*
TWA	*Time-Weighted Average*

Special Precautions: *Silica fillers in a dry form can cause severe lung diseases if you breathe their dusts. Do not sand or grind hardened epoxies that contain these substances. They are not known to be hazardous after blended into a liquid. Wet sanding is suggested to eliminate airborne dust, if product is machined or ground. The only other exposure limits established for ingredients of this product apply to nuisance dusts from inert fillers. These fillers are blended into a liquid and pose no hazard as supplied. Substances listed are present in concentration of 1% or greater, cited as a potential Carcinogen in the OSHA hazards communication standard.*

Explanation and Disclaimer: *Each customer or recipient has to become aware of and understand the data given in this SDS and any hazards associated with the product. The information is provided in good faith and believed to be accurate; however, does not appear all inclusive and shall be used only as a guide. Regulatory requirements are subject to change and may differ between various locations, it is buyer's responsibility to ensure that comply with all state, federal or local laws. The information in this document is based on the present state of our knowledge applicable to the product with regard to safety precautions. The information presented in here relates only to the product as shipped, and it is the buyer's responsibility to determine the conditions necessary for the safe use of this product. If you have received this SDS from any source other than Epoxytec or its authorized agent, the information contained in it may have been modified from the original document and it may not be the most current revision.*

Epoxytec products are designed for Industrial use only.

Section 1: Product and Company Identification

Product Identifier

Trade Name	CPP, B Component
Product Number	RC3-B
Product Description	Epoxy Formulation
Recommended Use	Protective Coating

Details of the Supplier of the Safety Data Sheet

Company	EPOXYTEC INTL, INC. 3000 N 29 CT HOLLYWOOD, FLORIDA 33023 Telephone (General): 954-961-4656

Emergency Telephone Number

3E Company Contract # 14738	N. America/S. America (+)1.760.476.3962 Europe (+)1.760.476.3962 Asia Pacific (+)1.760.476.3960 Middle East/Africa (+)1.760.476.3959

Section 2: Hazard(s) Identification

The product is classified and labeled according to the Globally Harmonized System (GHS) Classification in accordance with 29 CFR 1910 (OSHA HCS)

2.1. Classification of the mixture

Chemical Family: Amidoamine

Contains Diethylenetriamine
Phenol, 4,4'-(1-methylethylidene)bis
Tetraethylenepentamine
Corrosive
Severe respiratory irritant
Severe skin irritant
Severe eye irritant
May cause sensitization by skin contact
May cause sensitization by inhalation

2.2. GHS Label elements, including precautionary statements

Pictogram	Signal Word	Hazard Category	Hazard Statement
	Warning	4	Harmful if swallowed Harmful in contact with skin Causes skin irritation Causes serious eye irritation May cause an allergic skin reaction
	Danger	1	Causes serious eye irritation and damage
	Danger	3	Toxic if swallowed
	Warning	2,3	Acute aquatic toxicity Chronic aquatic toxicity

Signal word	Code	Warning
Hazard Statements	H302 + H312	Harmful if swallowed or in contact with skin
	H314	Causes severe skin burns and eye damage.
	H315	Causes skin irritation
	H317	May cause an allergic skin reaction
	H318	Causes serious eye damage
	H319	Causes serious eye irritation
	H320	Causes eye irritation
	H330	Fatal if inhaled
	H332	Harmful if inhaled
	H335	May cause respiratory irritation
	H361	Suspected of damaging fertility or the unborn child.
	H373	May cause damage to organs through prolonged or repeated exposure if inhaled.
	H401	Acute aquatic toxicity
	H411	Toxic to aquatic life with long lasting effects
Precautionary Statements	P201	Obtain special instructions before use.
	P202	Do not handle until all safety precautions have been read and understood.
	P233	Keep container tightly closed.
	P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
	P264	Wash skin thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P271	Use only outdoors or in a well-ventilated area
	P272	Contaminated work clothing should not be allowed out of the workplace.
	P273	Avoid release to the environment.
	P280	Wear protective gloves, eye and face protection.
	P281	Use personal protective equipment as required.
Supplementary Precautionary Statements	P308+P313	If exposed or concerned: Get medical advice/ attention.
	P305, P337, 338	IF IN EYES: If eye irritation persists: Remove contact lenses, if

		present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Rinse skin with water/shower.
	P353	Remove/Take off immediately all contaminated clothing.
	P361	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P340	
	P363	Wash contaminated clothing before reuse.
Supplemental label information	P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
	P332+313	If skin irritation occurs: Get medical advice/attention.
	P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
	P304 + P340 +P310	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
	P307 + P311	IF exposed: Call a POISON CENTER or doctor/physician.
Storage/Disposal	P391	Collect spillage.
	P403 + P235	Store in a well-ventilated place. Keep cool.
	P404	Store in a closed container.
	P405	Store locked up.
	P420	Store away from other materials.
	P501	Dispose of contents/ container to an approved waste disposal plant.

Section 3: Composition/Information on Ingredients

Chemical Characterization: Amidoamine
Description Mixture: Consisting of the following components

Materials	CAS Number	Concentration, (Weight)
Diethylenetriamine (DETA)	111-40-0	< 15 %
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	< 10 %
Tetraethylenepentamine	112-57-2	< 2.5 %

Section 4: First Aid Measures

4.1 Description of first aid measures

General advice
Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
If inhaled,
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Supplemental oxygen may be indicated. Trained personnel should begin cardiopulmonary resuscitation immediately
In case of skin contact
Immediately remove contaminated clothing and shoes without delay. Flush immediately with plentiful amounts of water. Initiate and maintain continuous wash until the patient receives medical care. If medical care is not promptly available, continue to wash with water for one hour. Cover wound with sterile dressing.

NOTE TO PHYSICIANS: Application of corticosteroid cream has been effective in treating skin irritation.
In case of eye contact
Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical care. Remove contact lenses, if present and easy to do. If medical care is not available immediately, continue rinsing for one hour.
If swallowed
Do not induce vomiting without medical advice. If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side.

Section 5: Firefighting Measures

5.1. Extinguishing media
Fire can be extinguished using: Foam. Alcohol resistant foam. Carbon dioxide (CO_2). Dry chemicals, sand, limestone powder.

5.2. Special hazards arising from the substance or mixture
Hazardous combustion products
Ammonia gas may be liberated at high temperatures. It may generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Use of water may result in the formation of very toxic aqueous solutions. Carbon monoxide and nitrogen oxides (NOx) may form result of incomplete combustion. Downwind personnel must be evacuated
5.3. Advice for firefighters
Special Fire Fighting Procedures:
Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary.
5.4. Further Information
Do not allow run-off from firefighting to enter drains or water courses. Fire residues and contaminated water must be disposed of in accordance with local regulations.

Section 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear self-contained breathing apparatus and chemically protective clothing in case of fire. Use suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.
2. Environmental precautions
Do not let product enter drains, do not allow to sewers/surface or ground water. Prevent leakage or spillage. Use appropriate containment to avoid environmental contamination. Construct a dike to prevent spreading.
6.3. Methods and material for containment and cleaning up
Approach suspected leak areas with caution. Wear necessary protective equipment. Place in appropriate chemical waste container. Absorb with liquid-binding material (sand, earth, vermiculate, and universal binders)
6.4. Additional advice
See section 11 for additional information on health hazards.
For waste disposal, see section 13.
Open enclosed spaces to outside atmosphere. If possible, stop flow of product.

Section 7: Handling and Storage

7.1 Precautions for safe handling
Use only in well-ventilated areas and avoid breathing vapors and/or aerosols. Emergency showers and eye wash stations should be readily accessible. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Use personal protective equipment, do not drink, eat and smoke during handling.
Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Suspected cancer causing nitorsamines could be formed.
7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place, away from heat, and strong oxidizers.
7.3. Technical Measures/Precautions
Do not store in reactive metal containers.

Section 8: Exposure Controls/Personal Protection

Provide accessible eye wash stations and safety showers.
Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limit.

Personal Protective Equipment

Respiratory Protection
Wear appropriate respirator when ventilation is inadequate.

Hand Protection
Wear chemical-resistant gloves such as: Nitrile- rubber, neoprene, and butyl-rubber. Gloves should conform to EN374. The breakthrough time of the selected gloves must be greater than the indented use period.

Eye Protection
Full face shield with googles underneath, and chemical resistant googles must be worn.

Body Protection
Protective clothing should be made of a material that will protect you from the chemicals: Slicker suit, impervious clothing, full rubber suit, rubber or plastic boots, long sleeve shirts and trousers without cuffs.

Hygiene Measures
Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. When using do not eat, drink or smoke. Discard contaminated leather articles.

Environmental Control Measures
Construct a dike to prevent spreading.

Exposure Limits

Diethylenetriamine (DETA)	Time Weighted Average (TWA): ACGIH	1 ppm	-
Diethylenetriamine (DETA)	Recommended Exposure Limit (REL): NIOSH	1 ppm	4 mg/m^3

Section 9: Physical and Chemical Properties

Physical and Chemical Properties

Form : Liquid
Color : Amber
Odor : Ammoniacal
Density : 0.98 g/cm^3 (61.179 lb/ft^3) at 70 °F (21 °C)
Vapor Pressure (mm Hg) : <5.17 mmHg at 70 °F (21 °C)
pH : Alkaline
Boiling Point (deg. C) : > 374 °F (> 190 °C)
Flash Point : 126.11 °C
Water Solubility : Slightly soluble

Section 10: Stability and Reactivity

Stability
Stable under recommended storage conditions.

Incompatible materials
Avoid contact with oxidizing materials. Avoid contact with: acids (organic and mineral), bases and oxidizing agents (such as sodium hypochlorite, acetic acid, citric acids). Reaction with peroxides may result in violent decomposition of peroxide (creating explosion). Product slowly corrodes copper, aluminum, zinc, and galvanized surfaces. Reactive metals (e.g. sodium, calcium, zinc. etc). Nitrous acid and other nitrosating agents. N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations.

Hazardous Decomposition Products
Nitrogent oxides (NOx): Nitrogen oxide can react with water vapors to form corrosive nitric acids. Chlorine, nitric acid, ammonia, carbon monoxide, carbon dioxide (CO_2), aldehydes, nitrosamine.

Section 11: Toxicological Information

Eye contact/corrosion : Severe eye irritation

Acute dermal irritation/corrosion : Severe skin irritation

Sensitization : May cause sensitization by inhalation and skin contact. Sensitization has occurred in laboratory animals after repeated exposures.

Acute Health Hazard
Inhalation Components : Diethylenetriamine (DETA)

Acute toxicity
Dermal : LD50 - 1,090 mg/kg (Rabbit)
Oral : LD50 - 1,080 mg/kg (Rat)
Inhalation : LC50 - 0.3 mg/l (Rat)

Inhalation Components : Phenol, 4,4'-(1-methylethylidene)bis-

Acute toxicity
Dermal : LD50, 6,400 mg/kg (Rabbit)
Oral : LD50 - > 2,000 - 5,000 mg/kg (Rat - male and female)
Inhalation : LC50 - 6 h - 170 mg/m^3 (Rat - male and female)

Section 12: Ecological Information

Toxicity
Diethylenetriamine (DETA)

Toxicity to fish LC50 - Poecilia reticulata (guppy) - 1,014 mg/l - 96 h

Aquatic toxicity : No data is available on the product itself.
Toxicity to other organisms : No data is available.

Persistence and Degradability
Mobility : No data is available.
Bioaccumulation : No data is available on the product itself.

Phenol, 4,4'-(1-methylethylidene)bis-

Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead minnow) - 4.6 mg/l -96 h
Toxicity to daphnia and other aquatic invertebrates: static test EC50 - Daphnia magna (Water flea) - 10.2 mg/l - 48 h
Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata (green algae) - 2.73 - 3.1

Persistence and degradability
Biodegradability aerobic : Exposure time 28 d Result: 89 % - Readily biodegradable.

Bioaccumulative potential : Bioaccumulation Cyprinus carpio (Carp) - 42 d- 0.015 mg/l

Section 13: Disposal Considerations

Waste from Residues/Unused
Do not dump into any sewers, on the ground, or into any body of water. Contact supplier if guidance is required

Contaminated Packaging
Dispose of container and unused contents in accordance with all applicable local and national regulations.

Section 14: Transport Information

IATA
Proper Shipping Name : Amines, Liquid, Corrosive, N.O.S.,
Technical Name : Diethylenetriamine (DETA)
Hazard Class : 8
UN/ID Number : UN2735
Packing Group : II

CFR
Proper Shipping Name : Amines, Liquid, Corrosive, N.O.S.,
Technical Name : Diethylenetriamine (DETA)
Hazard Class : 8
UN/ID Number : UN2735
Packing Group : II

IMDG
Proper Shipping Name : Amines, Liquid, Corrosive, N.O.S.,
Technical Name : Diethylenetriamine (DETA)
Hazard Class : 8
UN/ID Number : UN2735
Packing Group : II

CTC
Proper Shipping Name : Amines, Liquid, Corrosive, N.O.S.,
Technical Name : Diethylenetriamine (DETA)
Hazard Class : 8
UN/ID Number : UN2735
Packing Group : II

Section 15: Regulatory Information

OSHA Hazard Communication Standard (29CFR 1910.1200) Hazard Class(es): Corrosive, Sensitizer.

Country	Regulatory List	Notification
USA	TSCA	Included on inventory
EU	EINECS	Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer
Canada	DSL	Included on inventory
Australia	AICS	Included on inventory
Japan	ENCS	Not on inventory
South Korea	ECL	Included on inventory
China	SEPA	Included on inventory
Philippines	PICCS	Included on inventory

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification
Acute Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Components above 'de minimums' level
Phenol, 4.4'-(1-methylethylidene)bis-

Massachusetts Right To Know Components

Phenol, 4.4'-(1-methylethylidene)bis-	CAS# 80-05-7
Diethylenetriamine	CAS# 111-40-0

Pennsylvania Right To Know Components

Phenol, 4.4'-(1-methylethylidene)bis-	CAS# 80-05-7
Diethylenetriamine	CAS# 111-40-0

New Jersey Right To Know Components

Phenol, 4.4'-(1-methylethylidene)bis-	CAS# 80-05-7
Diethylenetriamine	CAS# 111-40-0

US California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)
This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm

WHMIS Hazard Classification
Very Toxic Material, Causing Other Toxic Effects, Toxic Material Causing Other Toxic Effects, Corrosive

Section 16: Other Information

Contains Diethylenetriamine (DETA), Tetraethylenepentamine, and Phenol, 4,4'-(1-methylethylidene)bis-.

HMIS Rating (Scale 0-4)
Health hazard: 3
Flammability: 1
Physical Hazard: 0

Abbreviations and acronyms

CGIH	*CGIH: American Conference of Industrial Hygienists*
AICS	*The Australian Inventory of Chemical Substances*
CFR	*U.S. Code of Federal Regulations*
DSL	*Domestic Substance List*
EPA	*Environmental Protection Agency*
ECL	*Korean Existing Chemicals List*
EINECS	*The European Inventory of Existing Commercial Chemical Substances*
ENCS	*Japanese Existing and New Chemical Substances Inventory*
HMIS	*Hazardous Material Identification System*
IATA	*The International Air Transport Association*
IMDG	*International Maritime Dangerous Goods*
LD50/LC0	*Lethal Concentration/Dose, 50 percent*
NIOSH	*NIOSH: National Institute for Occupational Safety and Health*
OSHA	*OSHA: Occupational Safety and Health*
PELs	*Permissible Exposure Limits*
PICCS	*Philippine Inventory of Chemicals and Chemical Substances*
REL	*Recommended Exposure Limit*
SARA	*Superfund Amendments and Reauthorization Act*
SEPA	*State Environmental Protection Administration*
TSCA	*The Toxic Substances Control Act*
WHMIS	*Workplace Hazardous Materials Information System*
TLV	*Threshold Limit Value,*
TWA	*Time-Weighted Average*

Explanation and Disclaimer: *Each customer or recipient has to become aware of and understand the data given in this SDS and any hazards associated with the product. The information is provided in good faith and believed to be accurate; however, does not appear all inclusive and shall be used only as a guide. Regulatory requirements are subject to change and may differ between various locations, it is buyer's responsibility to ensure that comply with all state, federal or local laws. The information in this document is based on the present state of our knowledge applicable to the product with regard to safety precautions. The information presented in here relates only to the product as shipped, and it is the buyer's responsibility to determine the conditions necessary for the safe use of this product.*

Epoxytec products are designed for Industrial use only.