Section 1: Product and Company Identification

1.1 Product Identifier

Trade Name	Uroflex 61, A Component
Product Number	WUME38-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 Epoxy Resin
Proprietary oligomer

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Skin sensitisation (Category 1), H317
Acute aquatic toxicity (Category 2), H401
Chronic aquatic toxicity (Category 2), H411

2.2. GHS Label elements, including precautionary statements

Pictogram	Signal Word	Hazard Category	Hazard Statement
	Warning	4	Harmful in contact with skin Harmful if inhaled 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	Causes skin irritation
	H317	May cause an allergic skin reaction
	H319	Causes serious eye irritation
	H332	Harmful if inhaled
	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
	H360	May damage fertility or the unborn child
	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.
	P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
	P264	Wash skin thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	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.
	P391	Collect spillage
Supplementary Precautionary Statements	P314	IF IN EYES: Rinse cautiously with water for several minutes.
	P302+352	Get medical advice/ attention if you feel unwell.
	P305 + P351 + P338	IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P321	Specific treatment (see supplemental first aid instructions on this label).
	P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
	P337 + P313	If eye irritation persists: Get medical advice/ attention.
	P362	Take off contaminated clothing and wash before reuse.
	P391	Collect spillage
Storage/Disposal	P501	Dispose of contents/ container to an approved waste disposal plant.
	P405	Store locked up.
	P404 + P233	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
Trade Secret Components: Contains trade secret component. For Trade Secret information refers to 29 CFR 1910.120.

Materials	CAS Number	Percentage, %
4,4'-isopropylidenediphenol-Epichlorohydrin Copolymer	25068-38-6	75-90
Proprietary oligomer	Proprietary*	5-10

: 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 inhaled,
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Get medical attention.
In case of skin contact,
Remove contaminated clothing/shoes and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. In case of inflammation (redness, and irritation) obtain medical attention. Show this sheet to the doctor. Do not reuse clothing until cleaned. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse.
In case of eye contact,
Immediately flush eyes with plenty of water for 15 minutes while holding eyelids open. Get medical attention.
If swallowed,
Never give anything by mouth to an unconscious person. Rinse mouth with water. Do not induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical advice.

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) and/or in toxicological effects on section 11.

4.3 Protection of first aid personnel
In the case of body contact with molten material, immediately cool with running water; do not attempt to remove material from skin. It may be dangerous to the person providing air to give mouth to mouth resuscitation.

4.4. Notes to physician
Person might give an indication of skin, and eye injury because of mixture contains small concentration of isocyanate. Physician Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed.

Workplace vapors could produce reversible corneal epithelial edema impairing vision. Skin: Treat symptomatically as for contact dermatitis or thermal burn. Ingestion: Treat symptomatically. An individual having a dermal or pulmonary sensitization reaction to this material should be removed from further exposure.

Section 5: Firefighting Measures

Flammability of the product
Product contains epoxy. In a fire or if heated a pressure increase will occur and the container may burst.

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
During a fire, thermal decomposition of isocyanate vapors or combustion may liberate carbon oxides and other toxic gases or vapors. Exposure to heated diisocyanate can be extremely dangerous.

5.3. Special firefighting Procedure
Firefighters should wear NFPA compliant structural firefighting protective equipment, including self-contained breathing apparatus and NFPA compliant helmet, hood, boots, and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse.

Section 6: Accidental Release Measures

Wear self-contained breathing apparatus and full protective clothing in case of fire.

6.1. Personal precautions, protective equipment and emergency procedures
No action shall be taken involving any personal risk or without suitable training. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Use appropriate respirator when ventilation is inadequate and use personal protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards.

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
Stop leak if without risk. Move containers from spill area. Absorb with liquid-binding material (sand, earth, vermiculate, and universal binders) Wear necessary protective equipment. Wash thoroughly after dealing with a spillage. Vacuum or sweep up material and place in designated labeled waste container. Dispose of via a licensed waste disposal contractor.

Section 7: Handling and Storage

For waste disposal, see section 13.

7.1 Precautions for safe handling

Put on appropriate personal protective equipment (see section 8 of SDS). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Avoid contact with skin,

eyes and clothing. Wash thoroughly after handling. Use soap and water or a commercial hand cleaner. Person with a history of skin sensitization problems should not be employed in any process in which this product is used. 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
Store in original container protected from direct sunlight, 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).

Section 8: Exposure Controls/Personal Protection

8.1. Control parameters

If user operations generate dust, fumes, gas, vapor, or mist use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Ingredient	CAS #	Agency	Limit type
4,4'-isopropylidenediphenol-Epichlorohydrin Copolymer	25068-38-6		No occupational exposure limit values.
Proprietary oligomer	-	ACGIH	TWA: 0.005 ppm STEL: 0.02 ppm

8.2. Personal Protective Equipment

8.3. Exposure controls

Respiratory Protection
In case of inadequate ventilation wear respiratory protection. In the recommended room temperature, product does not release airborne side products; however, if a fire or a process occurs resulting heating above 248 °F (120 °C), workers must wear air supplied respirators.

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

Eye Protection
Safety eyewear complying with an approved standard should be used: chemical goggles or safety glasses with side shields.

Body Protection
Avoid all skin contact. Depending on the condition of use, cover as much of the exposed skin area as possible with appropriate clothing to prevent skin contact such as gloves, goggles, long sleeved shirts and pants 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 lavatory. Wash promptly if skin becomes wet or contaminated. When using do not eat, drink or smoke. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to workstation location.

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties of Mixture

Appearance	
Form	Viscous, liquid
Color	Tan
Odor	Mild epoxy odor
Solids (% by weight)	100.0
Density	1.19 g/cm^3
Viscosity	12,000 (cPs)
Boiling Point	Not established
Vapor Pressure (mm Hg)	Not established
Vapor Density	Not established

Basic Physical and Chemical Properties of Components

4,4'-isopropylidenediphenol-Epichlorohydrin Copolymer, CAS # 25068-38-6	
Physical State: Viscous, Liquid	Flash Point: 252 °C (486 °F)
Color: Colorless	Vapour pressure: 0.04 hPa (0.03 mmHg) at 77 °C (171 °F)
Boiling Point (760 mmHg): 320 °C (608 °F)	Relative Density: 1.168 g/cm^3
Proprietary Oligomer	
Physical State: Viscous, Liquid	Melting/Freezing point: 3.89 °C (39 °F)
Color: Clear, light yellow	Flash Point: 192 °C (378 °F)
Density: 1.0 g/cm^3 at 20°C (68 °F)	Bulk Density: 1,042 kg/m^3

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

Inhalation

Not expected to be a relevant route of exposure, however, under conditions where exposure to vapors or mists is possible, could cause respiratory tract irritation.
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.
Skin Contact
Signs/symptoms may include abrasion, redness, pain, and blistering, itching and skin sensitization.
Eye Contact
May be severely irritating to the eyes: Signs/symptoms may include pain, redness, tearing and corneal abrasion.
Ingestion
Product may be slightly toxic and harmful if swallowed.
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Toxicological information on ingredients:

Name	Route	Species	Value
4,4'-isopropylidenediphenol-Epichlorohydrin Copolymer	Dermal	Rat	LD50 - > 1,200 mg/kg
4,4'-isopropylidenediphenol-Epichlorohydrin Copolymer	Ingestion	Rat	LD50 - > 30,000 mg/kg
Proprietary oligomer (data is based on a similar product)	Ingestion	Rat	LD50: > 5,000 mg/kg

Other Toxicological Information

Carcinogenicity Classification
4,4'-isopropylidenediphenol-Epichlorohydrin Copolymer
ACGIH : Not classified
IARC : Not classified
NTP : Not classified
OSHA : Not classified
EU : Not classified

Section 12: Ecological Information

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.

Mobility in soil: Paste insoluble in water.

12.1. Toxicity

4,4'-isopropylidenediphenol-Epichlorohydrin Copolymer

Acute LC50 1.3 mg//96 h Fish
Other adverse effects: No known significant effects or critical hazards

Proprietary oligomer
Acute and Prolonged Toxicity to Fish
LC50: > 10,000 mg/l (Danio magna (zebra fish), 96 h)

Acute Toxicity to Aquatic Invertebrates
EC50: > 100 mg/l (Daphnia magna (water flea), 96 h)

Toxicity to Aquatic Plants
ErC50: > 100 mg/l, (Desmodesmus subspicatus (Green algae), 72 h)
Toxicity to Microorganisms
EC50: > 10,000 mg/l, (activated sludge)

12.2 Persistence and degradability

4,4'-isopropylidenediphenol-Epichlorohydrin Copolymer: According to the results of tests of biodegradability this product is not readily biodegradable. Remarks: no data available

Proprietary oligomer: Biodegradation, 0%, Exposure time: 28 d, i.e. not readily degradable

Section 13: Disposal Considerations

The generation of waste should be avoided or minimized. Do not dump into any sewers, on the ground, or into any body of water. For disposal of residual product, mix by weight 100 parts Part A with 73 parts Part B. Allow mix to solidify in well ventilated area or outdoors. Regulations may vary in different locations. Dispose of this product, and/or any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Labels should not be removed from containers until they have been cleaned. Empty containers may contain hazardous residues.

Section 14: Transport Information

DOT (US)
Basic Shipping Requirements:
Proper Shipping Name : Environmentally Hazardous Substance, Liquid, N.O.S
Technical Name : 4'-isopropylidenediphenol-Epichlorohydrin Copolymer
Hazard Class : 9
UN/ID Number : 3082
Packing Group : III

IMO/IMDG
Proper Shipping Name : Environmentally Hazardous Substance, Liquid, N.O.S
Technical Name : 4'-isopropylidenediphenol-Epichlorohydrin Copolymer
Hazard Class : 9
UN/ID Number : 3082
Packing Group : III

IATA
Proper Shipping Name : Environmentally Hazardous Substance, Liquid, N.O.S
Technical Name : 4'-isopropylidenediphenol-Epichlorohydrin Copolymer
Hazard Class : 9
UN/ID Number : 3082
Packing Group : III

CFR/TDG
Not regulated for transport

Section 15: Regulatory Information

Superfund Amendments and Reauthorization Act (SARA) of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

SARA 302 Components (Emergency Planning)
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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

SARA 311/312 Hazards (Hazardous Chemical Storage Reporting Requirements)
Acute Health Hazard

Massachusetts Right To Know Components

Proprietary oligomer	Cas # is a trade secret

Pennsylvania Right To Know Components

Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	Cas # 25068-38-6
Proprietary oligomer	Cas # is a trade secret

New Jersey Right To Know Components

Reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	Cas # 25068-38-6
Proprietary oligomer	Cas # is a trade secret

California Prop. 65 Components (Safe Drinking Water and Toxic Enforcement Act of 1986)

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

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

Section 16: Other Information

Contains epoxy constituents and aliphatic acrylates. See information supplied by the manufacturer.

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

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

Abbreviations and acronyms

ACGIH	*Industrial Hygienists Suggest Exposure Limits*
CFR	*Code of Federal Regulations*
OT	*Federal Department of Transportation*
DSL	*Domestic Substance List*
EC50	*Half maximal effective concentration*
ErC50	*EC50 in terms of reduction of growth rate*
EU	*European Union*

GHS	*The Globally Harmonized System of Classification and Labelling of Chemicals*
HMIS	*Hazardous Material Identification System*
HCS	*Hazard Communication Standard*
IARC	*International Agency for Research on Cancer*
IATA	*The International Air Transport Association*
IMDG	*International Maritime Dangerous Goods*
IMO	*International Maritime Organization*
LD50/LC0	*Lethal Concentration/Dose, 50 percent*
NFPA	*National Fire Protection Association*
NTP	*National Toxicology Program*
OSHA	*Occupational Safety and Health*
SARA	*Superfund Amendments and Reauthorization Act*
STEL	*Short Term Exposure Limit*
TDG	*The Canadian Transportation of Dangerous Goods*
TWA	*Time-Weighted Average*
WEEL	*Workplace Environmental Exposure Levels*

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.*

Epoxytec products are designed for industrial use only.

Section 1: Product and Company Identification

1.1 Product Identifier

Trade Name	Uroflex 61 Part B
Product Number	Not Available
Product Description	Epoxy Formulation

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use	Protective Coating

1.3 Details of the Supplier of the Safety Data Sheet

Company	EPOXYTEC INTL, INC. 3000 N 29 CT HOLLYWOOD, FLORIDA 33020 Telephone (General): 954-961-4656

1.4 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

The product is classified and labeled according to the Globally Harmonized System (GHS) Classification in accordance with 29 CFR 1910 (OSHA HCS) and Regulation (EC) No 1907/2006 (REACH).

Section 2: Hazard(s) Identification

2.1. Classification of the mixture

Component(s) Contributing to Classification(s)
All components listed in Section 3

2.2. GHS Label elements, including precautionary statements

Pictogram(s)		
Signal Word	**Danger**	
GHS Hazard Classification	Acute Toxicity Category 4 (Oral, Dermal, Inhalation) Skin Corrosion Category 1 Eye Damage Category 1 Skin Sensitization Category 1 Reproductive Toxicity Category 2 Aquatic Acute Category 2 Aquatic Chronic Category 2	
Hazard Statements	H302 H312	Harmful if swallowed Harmful in contact with skin

	H332 H314 H317 H361 H401 H411	Harmful if inhaled Causes severe skin burns and eye damage May cause an allergic skin reaction Suspected of damaging fertility or the unborn child Toxic to aquatic life Toxic to aquatic life with long lasting effects
Prevention Statements	P201 P202 P260 P264 P270 P272 P280 P273	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. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye and face protection. Avoid release to the environment.
Response Statements	P301+P330+P331 P308+P313 P304+P340+P312 P303+P361+P353 P305+P351+P338 P333+P313 P310 P363 P321 P314 P391	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF exposed or concerned: Get medical advice/ attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 skin irritation or rash occurs: Get medical advice/attention. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse. Specific treatment (see section 4 of this SDS) Get medical advice/attention if you feel unwell. Collect spillage.
Storage/Disposal	P405 P501	Store locked up. Dispose of contents/ container to an approved waste disposal plant.

2.3 Other Hazards
None applicable

Section 3: Composition/Information on Ingredients

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

Materials	CAS #	EINECS #	Index #	Percentage	Classification
Fatty acids, C18 unsatd., dimers, reaction products with polyethylenepolyamines	68410-23-1	614-452-7	Not Listed	30-60	Skin Irrit. Cat 2 Skin Sens Cat 1 Eye Dam. Cat 1 Aquatic Chronic 2
Benzyl alcohol	100-51-6	202-859-9	603-057-00-5	10-30	Acute Tox. Cat 4 (Oral, Dermal, Inhal) Eye Irrit Cat 2a Aquatic Acute Cat 2
Isophoronediamine	2855-13-2	220-666-8	612-067-00-9	10-30	Acute Tox. Cat 4 (Oral, Dermal)

					Skin Corr. Cat. 1B Skin Sens Cat 1 Aquatic Acute Cat 3 Aquatic Chronic Cat 3
Polyamine reaction product	N/A	N/A	Not Listed	5-10	Skin Corr. Cat. 1B
Phenol, 4-nonyl-, branched	84852-15-3	284-325-5	601-053-00-8	1-5	Acute Tox. Cat 4 (oral) Skin Corr. Cat. 1B Repr. Cat 2 Aquatic Acute/Chronic Cat 1
Triethylenetetramine	112-24-3	203-950-6	612-059-00-5	0.1-1	Acute Tox. Cat 4 (Oral, Dermal) Skin Corr. Cat. 1B Skin Sens Cat 1 STOT SE Cat 3 Aquatic Acute Cat 3 Aquatic Chronic Cat 3
bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate	41556-26-7	255-437-1	Not Listed	0.1-1	Skin Sens Cat 1 Aquatic Acute Cat 1 Aquatic Chronic Cat 1
Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	82919-37-7	280-060-4	Not Listed	0.1-1	Skin Sens Cat 1 Aquatic Acute Cat 1 Aquatic Chronic Cat 1

Additional Information:
See SECTION 16 for full Classification phrases.
* Actual concentration of ingredients is Company Trade Secret - Business Confidential. The manufacturer is withholding the specific chemical identity under provision of WHMIS 2015 and the OSHA Hazard Communication Rule Trade Secrets (1910.1200(i)(1)). The specific chemical concentration will be made available to health professionals.

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 inhaled,
If breathed in, remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention.
In case of skin contact,
Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Consult a physician.
In case of eye contact,
Immediately flush eyes with plenty of water for 15 minutes while holding eyelids open. Get medical attention.
If swallowed,
Wash out mouth with water. Remove dentures if any. Never give anything by mouth to an unconscious person. Do not induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical advice.
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) and/or in toxicological effects on section 11

4.3 Indication of immediate medical attention and special treatment needed
No specific antidote. Treatment of exposure should be directed at the control of symptoms and clinical condition of the patient.

Section 5: Firefighting Measures

5.1. Extinguishing media
Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

5.2. Specific hazards arising from the chemical
In a fire or if heated, a pressure increase will occur and the container may burst.

5.3. Special hazards arising from the substance or mixture
During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Phenolics, Carbon monoxide, Carbon dioxide, Silicon dioxide.

5.4. Special firefighting Procedure
Firefighters should wear NFPA compliant structural firefighting protective equipment, including self-contained breathing apparatus and NFPA compliant helmet, hood, boots, and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse.
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
No action shall be taken involving any personal risk or without suitable training. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Use appropriate respirator when ventilation is inadequate and use personal protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards.

6.2. Environmental precautions
Do not let product enter drains, do not allow to sewers/surface or ground water. See Section 12, Ecological information.

6.3. Methods and material for containment and cleaning up
Wear necessary protective equipment. Vacuum or sweep up material and place in designated labeled waste container. Dispose of via a licensed waste disposal contractor. Wash thoroughly with soap and hot water after dealing with a spillage. For waste disposal, see section 13.

Section 7: Handling and Storage

7.1 Precautions for safe handling
Put on appropriate personal protective equipment (see section 8 of SDS). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Use soap and water or a commercial hand cleaner. Person with a history of skin sensitization problems should not be employed in any process in which this product is used.
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
Store in original container protected from direct sunlight, keep container tightly closed in a dry and well-ventilated place, away from heat, and strong oxidizers. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end uses.
See section 1.2.

Section 8: Exposure Controls/Personal Protection

8.1. Control parameters

If user operations generate dust, fumes, gas, vapor, or mist use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The limit values must be followed strictly if dust form occurs during any of the use.

Ingredient	CAS #	Agency	Limit type
Fatty acids, C18 unsatd., dimers, reaction products with polyethylenepolyamines	68410-23-1	No Data	No Data
Benzyl alcohol	100-51-6	No Data	No Data
Isophoronediamine	2855-13-2	No Data	No Data
Polyamine reaction product	N/A	No Data	No Data
Phenol, 4-nonyl-, branched	84852-15-3	No Data	No Data
Triethylenetetramine	112-24-3	WEEL	TWA: 1 ppm (skin)
bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate	41556-26-7	No Data	No Data
Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	82919-37-7	No Data	No Data

8.2. Personal Protective Equipment

8.3. Exposure controls

Respiratory Protection

In case of inadequate ventilation wear respiratory protection. If 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, butyl rubber, neoprene, and polyvinyl chloride. Gloves should conform to EN374

Eye Protection

Safety eyewear complying with an approved standard should be used: chemical goggles or safety glasses with side shields.

Body Protection

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Wash hands at the end of each work shift and before eating, smoking and using the lavatory. Wash promptly if skin becomes wet or contaminated. When using do not eat, drink or smoke. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to workstation location.

Control of environmental exposure

Prevent spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties of Mixture

Appearance	
Form	Liquid
Color	Clear to grey
Odor	Mild epoxy odor
Odor Threshold	Not applicable
pH	Not applicable
Boiling Point (deg. C)	Not Available
Flash Point	>93°C (>200°F)
Evaporation Rate	Slower than Ether
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	Not Available
Vapour pressure	Not Available
Vapour density	Heavier than air
Relative density	0.81 g/cm^3
Solubility	Not established
Partition coefficient	Not established

Auto-ignition temperature	Not established
Decomposition temperature	Not established
Viscosity	Not established
Weight per Gallon	7.06 +/- .1
Percent Volatile	Not Available

Section 10: Stability and Reactivity

10.1 Reactivity
No dangerous reaction known under conditions of normal use.
10.2 Chemical Stability
Stable under recommended storage conditions. See Storage, Section 7.
10.3 Possibility of Hazardous Reactions
Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Thermal Decomposition and Conditions to be avoided
Heat, flames and sparks. Ignition sources.
10.5 Incompatible materials
Avoid contact with oxidizing materials.
10.6 Hazardous Decomposition Products
Nature of decomposition products unknown.

Section 11: Toxicological Information

11.1 Information on Toxicological Effects

Epoxy Resin together with inorganic fillers. Toxicological data has not been determined for this product. The information is given below is based on main component of this product.

Toxicological information on ingredients:

Name	Route	Species	Value
Phenol, 4-nonyl-, branched	Ingestion	Rat	LD50 - 1,412 mg/kg
	Dermal		No data available
	Skin corrosion	Rabbit	Causes burns. - 4 h
	Eye irritation	Rabbit	Corrosive - 72 h
Fatty acids, C18 unsatd., dimers, reaction products with polyethylenepolyamines	Ingestion	Rat	LD50 - > 8000 mg/kg
Isophoronediamine	Inhalation	Rat	LC50- 4 h - > 5.01 mg/
	Oral	Rat	LD50 - 1,030 mg/kg
	Dermal	Rat	LD50 - > 2,000 mg/kg
	Skin irritation	Rabbit	Causes burns
	Eye irritant	Rabbit	Corrosive to eyes
Benzyl alcohol	Inhalation	Rat	LD50 - > 1,230 mg/kg
	Dermal	Rabbit	LD50: 2,000 mg/kg
	Eye Irritation	Rabbit	Causes serious eye damage. Corrosive

11.1.2 Mixtures

Acute toxicity	Acute Toxicity Category 4 (Oral, Dermal, Inhalation)
Skin corrosion / irritation	Skin Corrosion Category 1
Serious eye damage / irritation	Eye Damage Category 1
Respiratory or skin sensitization	Skin Sensitization Category 1
Germ cell mutagenicity	Based on available data, the classification criteria are not met
Carcinogenicity	Based on available data, the classification criteria are not met
Reproductive toxicity	Reproductive Toxicity Category 2
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met

Other Information
Eye damage/eye irritation : May cause damage to the eyes.

Skin corrosion/irritation : May cause skin burns. May cause an allergic skin reaction.

Inhalation : May cause respiratory irritation

Ingestion : Irritating to mouth, throat and stomach.

Carcinogenicity Classification
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
4-NONYLPHENOL, BRANCHED : Suspected human reproductive toxicant
Reproductive toxicity - Rat – Oral
4-NONYLPHENOL, BRANCHED: Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Physical. Suspected human reproductive toxicant.

Section 12: Ecological Information

12.1 TOXICITY:
No ecological information available on the specific mixture. The following is information for components.

Name	Toxicity to fish	Toxicity to daphnia	Toxicity to algae
Fatty acids, C18 unsatd., dimers, reaction products with polyethylenepolyamines	Golden Orfe LC50 – 2.3 mg/l	Daphnia Magna EC50 – 31.1 mg/l	Scenedesmus subspicatus EC50 – 2.5 mg/l
Benzyl alcohol	Bluegill sunfish LC50 – 10 mg/l	No data available	IC50 – 700 mg/l
Isophoronediamine	Golden Orfe LC50 (96 h): 110 mg/l	EC50 (48h) : 23 mg/l	EC50 (72 h): 37 mg/l

12.2 PERSISTENCE AND DEGRADABILITY:
No data is available for product.
12.3 BIOACCUMULATIVE POTENTIAL:
No specific data available on this product.
12.4 MOBILITY IN SOIL:
No data is available for product.
12.5 RESULTS OF PBT AND vPvB ASSESSMENT:
No specific data available on this product.
12.6 OTHER ADVERSE EFFECTS:
No specific data available on this product.
12.7 WATER ENDANGERMENT CLASS:
May be water endangering in accordance with EU Guideline 91/155-EWG. Do not allow product to reach ground water, water course or sewage system. At present there are no ecotoxicological assessments for this product

Section 13: Disposal Considerations

13.1 Waste Treatment Methods
The generation of waste should be avoided or minimized. Do not dump into any sewers, on the ground, or into any body of water. For disposal of residual product, mix by weight 1 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 this product, and/or any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Labels should not be removed from containers until they have been cleaned. Empty containers may contain hazardous residues.

Section 14: Transport Information

Road Transport: DOT / ADR
Proper Shipping Name : Amines, liquid, corrosive, n.o.s. (Isophoronediamine, Polyamines)
Hazard Class : 8
UN/ID Number : UN2735
Packing Group : III
Marine Pollutant : Yes

Air Transport: IATA/ICAO
Proper Shipping Name : Amines, liquid, corrosive, n.o.s. (Isophoronediamine, Polyamines)
Hazard Class : 8
UN/ID Number : UN2735
Packing Group : III
Marine Pollutant : Yes

Sea Transport: IMDG
Proper Shipping Name : Amines, liquid, corrosive, n.o.s. (Isophoronediamine, Polyamines)
Hazard Class : 8
UN/ID Number : UN2735
Packing Group : III
Marine Pollutant : Yes

Section 15: Regulatory Information

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

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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

Massachusetts Right To Know Components
None

Pennsylvania Right To Know Components
4-Nonylphenol, branched CAS # 84852-15-3

New Jersey Right To Know Components
4-Nonylphenol, branched CAS # 84852-15-3

California Prop. 65 Components (Safe Drinking Water and Toxic Enforcement Act of 1986)
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

CANADIAN REGULATIONS:
CANADIAN DSL/NDSL INVENTORY STATUS: Components are DSL Listed, NDSL Listed and/or are exempt from listing
OTHER CANADIAN REGULATIONS: Not applicable.
CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.
CANADIAN WHMIS CLASSIFICATION and SYMBOLS: This product has been classified per WHMIS 2015.

EUROPEAN ECONOMIC COMMUNITY INFORMATION:
This product does meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.
See Section 2 for Details.

CHEMICAL SAFETY ASSESSMENT :
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

AUSTRALIAN INFORMATION FOR PRODUCT:
This product does meet the definition of a hazardous substance or preparation as defined by the Safe Work Australia Act. Components of this product are listed on the International Chemical Inventory list

Section 16: Other Information

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

NFPA Rating (Scale 0-4)
Health hazard: 3
Flammability Hazard: 1
Reactivity Hazard: 0

Caution: HMIS ratings are based on a 0-4 rating scale
0= Minimal Hazard
1= Slight
2= Moderate
3= High
4= Extreme

Abbreviations and acronyms

ACGIH	*American Conference of Governmental Industrial Hygienists*
AIHA	*American International Health Alliance*
CFR	*Code of Federal Regulations*
DOT	*Federal Department of Transportation*
DSL	*Domestic Substance List*
EC50	*Half maximal effective concentration*
GHS	*The Globally Harmonized System of Classification and Labelling of Chemicals*
HMIS	*Hazardous Material Identification System*
HCS	*Hazard Communication Standard*
IARC	*International Agency for Research on Cancer*
IATA	*The International Air Transport Association*
IMDG	*International Maritime Dangerous Goods*
IMO	*International Maritime Organization*
LD50/LC50	*Lethal Concentration/Dose, 50 percent*
NFPA	*National Fire Protection Association*
NIOSH	*National Institute for Occupational Safety and Health*
NTP	*National Toxicology Program*
OEL	*Occupational Exposure Limit*
OSHA	*Occupational Safety and Health*
REL	*Recommended Exposure Limit*
SARA	*Superfund Amendments and Reauthorization Act*
TLV	*ACGIH Threshold Limit Value*
TWA	*Time-Weighted Average*
WEEL	*Workplace Environmental Exposure Levels*
Skin Corr.	*Skin Corrosion*
Skin Sens.	*Skin Sensitization*
Eye Irrit.	*Eye Irritation*
Acute Tox	*Acute Toxicity*
Repr	*Reproductive Toxicity*
STOT SE	*Single Target Organ Toxicity - Single Exposure*

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/MCOR or its authorized agent, the information contained in it may have been modified from the original document.*

Epoxytec products are designed for industrial use only.

Revision History:
April 16, 2018 - Document creation.

END OF SDS