

# VAPOR BLOCK EPOXY

## SAFETY DATA SHEET

### PRODUCT NAME: Vapor Block Epoxy-A

#### SECTION 1 – IDENTIFICATION

**Manufacturer's Info:****PROLINE**2664 Vista Pacific  
Oceanside, CA 92056**Product name: Vapor Block Epoxy-A****Information phone:** (760) 758-7240**Emergency contact:** CHEMTREC (800) 424 9300

#### SECTION 2 – HAZARD(S) IDENTIFICATION

**OSHA Hazard Communication Standard:**

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

**GHS-Label Elements:**     **Signal Word:**  
WARNING

GHS 07



GHS 09

**Classification of the substance or mixture:**

Hazard Class	Category	Hazard Statement Codes	Hazard Statements
Skin corrosion / Irritation	2	H315	Causes skin irritation
Serious eye damage / Eye irritation	2A	H319	Causes serious eye irritation
Skin Sensitization	1	H317	May cause an allergic skin reaction
Aquatic Hazard, Acute	2	H402	Toxic to aquatic life
Aquatic Hazard, Long term	2	H411	Toxic to aquatic life with long lasting effects

**Precautionary Statements:**

Prevention:	P280 P261 P264 P272 P273	Wear protective gloves/ protective clothing / eye protection/ face protection. Avoid breathing mist/ vapors/ spray. Wash exposed area with plenty of water and soap thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.
Response:	P302 + P352 P362 P333 + P313 P305 + P351 + P338  P337 + P313 P391	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention. 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. Collect spillage.
Storage:	None	
Disposal:	P501	Dispose of contents/container to hazardous or special waste collection point in accordance with local/regional/national/international regulations.

**Hazards not otherwise classified:**     See Section 11 for additional info.

#### SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS #	EC #	Concentration, %
Bisphenol F Epoxy Resin	9003-36-5	500-006-8	30 - 60
Bisphenol A Epoxy Resin	25085-99-8	607-537-5	30 - 60
Oxirane, mono [(C12-14-alkyloxy)methyl] derivatives	68609-97-2	271-846-8	10 - 30

#### SECTION 4 – FIRST-AID MEASURES

**Description of First Aid measures:****Inhalation:**     Remove the exposed person to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  
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.  
If unconscious, place in recovery position and maintain an open airway. Loosen tight clothing such as a collar, tie, belt

or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person should be kept under medical surveillance for 48 hours.

- Skin:** Wash material off of the skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes immediately and wash them before reuse. For severe exposures, immediately get under safety shower and begin rinsing. For molten product, immediately immerse affected area in cool water or flush with large amounts of cool water, and get medical attention. If irritation develops, consult a physician or dermatologist.
- Eye:** Immediate medical attention required. Chemical burns must be treated promptly by a physician or ophthalmologist. Rinse cautiously with water for several minutes, especially under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Do not rub eyes in order to prevent cornea injury.
- Ingestion:** Remove the exposed person to fresh air and keep at rest in a position comfortable for breathing. Remove dentures if any. If conscious, rinse mouth thoroughly with water and then give 60 to 240 mL (2 to 8 oz) of water to drink. Do not give milk. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.  
If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

**Most important symptoms/effects, acute and delayed:** See Section 11 for more details.

**General advice for First Aid responders:** No action should be taken involving any personal risk or without suitable training. If potential for exposure exist refer to Section 8 for specific personal protective equipment. Move out of dangerous area. Do not leave the victim unattended. Show this SDS to physician.

**Note to physician:** Specific antidotes or neutralizers do not exist. Treatment should be supportive and based on the judgment of the physician in response to the reaction of the patient. Symptoms of poisoning may even occur after several hours. Recommended medical monitoring for at least 48 hours.

Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed.

Skin: This product contains component that is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn.

Ingestion: Inducing vomiting can be contraindicated because of the irritating nature of the chemical.

### SECTION 5 – FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media:** Direct water stream may cause frothing, splattering of burning material, violent steam generation or eruption and spreading of fire.

**Specific hazards arising from the chemical:** Material may be ignited only if preheated to high temperatures (such in fire conditions). Fire in vicinity poses risk of pressure build-up and rupture. Containers at risk from fire should be cooled with water and, if possible, removed from the danger area. Hazardous Combustion products: carbon and nitrogen oxides, amines, hydrogen cyanide, lower molecular weight organic molecules. Dense smoke is emitted when burned without sufficient oxygen.

**Special Protective Equipment and Precautions for fire-fighters:** Wear NIOSH or OSHA approved self-contained breathing apparatus in positive pressure mode with full face piece and full protective gear. Isolate the scene by removing all persons from the incident area. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. No action should be taken involving any personal risk or without suitable training. Contain fire water run-off. IT must not be discharged into drains. Fire water run-off, if not contained, may cause environmental damage. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

### SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Keep unnecessary and unprotected personnel from entering. Ensure adequate ventilation/exhaust extraction. Avoid breathing vapors or mist during clean up. Use protective equipment as described in Section 8. Do not touch or walk through spilled material, spilled material may cause a slipping hazard.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Inform the relevant authorities if the product has caused environmental pollution. Water polluting material. May be harmful to the environment if released in large quantities. See Section 12 for more details.

**Methods and materials for containment and cleaning up:** Remove mechanically; cover the remainder with non-combustible absorbent material (e.g. sand, earth, vermiculite or diatomaceous earth). Following absorption, transfer into properly labeled chemical waste containers. If necessary, repeat application of absorbent material until all liquid has been removed from the surface. Remove residual with warm, soapy water or non-flammable, safe solvent. Solvents are not recommended for clean-up unless the recommended exposure guidelines and safe handling practices for the specific solvent are followed. Consult appropriate solvent Safety

Data Sheet for handling information and exposure guidelines. Scrubbing the surface with a broom or brush helps the decontamination solution to penetrate into porous surfaces. After cleaning, remove waste container and keep in a well ventilated area. Properly dispose of the waste material and any contaminated equipment (i.e., broom or brush) in accordance with existing federal, state and local regulations.

For major spills: Stop leak if without risk. Approach release from upwind. Remove ignition sources. Move containers from spill area.

Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or contain and collect with an absorbent material as described in the previous paragraph.

For minor spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly with soap and water to remove residual contamination. Never return spills to original containers for re-use.

Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, see Section 1 for the Emergency contact; for further disposal measures, see Section 13.

## SECTION 7 – HANDLING AND STORAGE

**Precautions for safe handling:** Protect chemical from atmospheric moisture. Avoid prolonged exposure to heat and air. Keep away from sources of ignition. Avoid use of electric band heaters. Failures of electric band heaters have been reported to cause drums of liquid epoxy resin to explode and catch fire. Application of a direct flame to a container of liquid epoxy resin can also cause explosion and/or fire. Do not reseal if contamination is suspected.

Use adequate ventilation to keep airborne levels below the exposure limits. Do not breathe vapors and mists. Wear respiratory protection if material is heated, mixed, sprayed or used in a confined space. Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Wash hands thoroughly after handling. Hands and/or face should be washed before eating, drinking and smoking and at the end of the shift. Remove contaminated clothing and protective equipment before entering eating areas. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

This material can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations. Individuals with asthma, chronic respiratory disease or prior allergic reactions to isocyanates and those with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not handle until all safety precautions have been read and understood.

**Conditions for safe storage, including any incompatibilities:** Store in original or approved alternative container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.

Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Protect it against physical damage and moisture. Normal temperature and pressures do not affect the material. Keep liquid away from heat, sparks and flame. Do not cut, drill, grind, weld or perform similar operations on or near containers. Use appropriate containment to avoid environmental contamination.

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

**Storage stability:** Stable under normal conditions.

**Storage temperature:** 60 - 105°F (16 - 40°C)

Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200. Employees and consumers should be warned of health risks associated with product use.

See Section 8 for additional information on hygiene measures.

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

**Control Parameters/Occupational exposure limit values:** Contains no substances with occupational exposure limit values.

**Appropriate engineering controls:** Good local and general ventilation should be sufficient to control worker exposure to airborne contaminants below recommended exposure limits. Local exhaust may be required in some areas.

**Personal protective equipment:**

**Eye/face protection:**

When directly handling liquid product, eye protection is required. Examples of eye protection include safety glasses and goggles or full face shield when there is a greater risk of splash. Contact lenses should not be worn when working with chemicals.

**Skin/body protection:**

Avoid contact with skin. Impervious gloves (nitrile butyl rubber, neoprene or PVC) should be worn always when working with this product. Body should be covered with appropriate clothing (apron, arm covers or full body suit) depending on the task being performed and the risks involved. Protective clothing should be selected and used in accordance with "Guidelines for the Selection of Chemical Protective Clothing" published by ACGIH. Wash contaminated clothing before reuse. Store work clothing separately. Appropriate footwear should be also selected based on the task being performed and the risks involved. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

**Respiratory protection:**

Use local or general ventilation to control exposures below applicable exposure limits. When ventilation is inadequate, use either an atmosphere supplying respirator or NIOSH or OSHA approved air-purifying respirator for organic vapors. Respirator must be properly fitted and its selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Additional Protective Measures:** Educate and train employees in safe handling of this product. Follow all label instructions. As a general hygiene practice, wash hands and face after use. Clean water should always be readily available for emergency skin and eye washing. Emergency eyewash fountains and safety shower are recommended in close proximity as a matter of good work practice.

### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Light yellow transparent Liquid
<b>Odor:</b>	Not available
<b>Odor threshold:</b>	Not available
<b>pH:</b>	Not available
<b>Melting point/ freezing point:</b>	Not available
<b>Initial boiling point and boiling range:</b>	Not available
<b>Flash point:</b>	~120°C (closed cup)
<b>Evaporation rate:</b>	Not available
<b>Flammability (solid, gas):</b>	Not available
<b>Upper/ lower flammability or explosive limits:</b>	Not available
<b>Vapor pressure:</b>	Not available
<b>Vapor density:</b>	Not available
<b>Relative density:</b>	1.09 g/cm <sup>3</sup> @ 25°C (77°F)
<b>Solubility (water):</b>	Insoluble
<b>Partition coefficient n-octanol/water:</b>	Not available
<b>Auto-ignition temperature:</b>	Not available
<b>Decomposition temperature:</b>	Not available
<b>Viscosity:</b>	Not available

### SECTION 10 – STABILITY AND REACTIVITY

**Reactivity:** Hazardous Polymerization will not occur by itself. Reaction of more than one pound (0.5 kg) of product with an aliphatic amine will cause irreversible polymerization with considerable heat build-up.

**Chemical stability:** Stable under recommended storage conditions.

**Conditions to avoid:** Avoid short term exposures to temperatures above 300°C. Avoid prolonged exposure to temperatures above 250°C. Potentially violent decomposition can occur above 350°C. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid.

**Incompatible materials:** Oxidizing agents. Water, alcohols, amines, bases, acids.

**Hazardous decomposition products:** Depend upon temperature, air supply and presence of other materials. Can include, but are not limited to carbon dioxide, carbon monoxide, nitrogen oxides, amines, hydrogen cyanide, lower molecular weight organic molecules.

### SECTION 11 – TOXICOLOGICAL INFORMATION

**Likely Routes of Exposure:** Inhalation, Skin and Eye Contact, Ingestion.

**Symptoms of exposure:**

**Acute toxicity:**

**Oral:** May be harmful if swallowed. Adverse symptoms may include abdominal pain, nausea, and diarrhea.

**Dermal:** May be harmful in contact with skin. Adverse symptoms may include irritation and redness.

**Inhalation:** Inhalation is unlikely due to the low vapor pressure. However, if handled at elevated temperatures, it may give off-gas, vapor or mist that is very irritating to the respiratory system. Adverse symptoms may include nausea, headache, and difficulties with breathing.

**Skin corrosion / irritation:**

Irritating to skin. Skin contact may result in dermatitis, either irritative or allergic.

**Serious eye damage / eye irritation:**

Causes serious eye irritation. Adverse symptoms may include tearing, redness and swelling.

**Specific target organ toxicity, single exposure:**

No data available.

**Aspiration hazard:** Not an aspiration hazard.

**Chronic toxicity:**

**Respiratory and Skin Sensitizer:**

This material contain component that is reported to be a respiratory or skin sensitizer.

- Bisphenol F Epoxy Resin, CAS #: 9003-36-5: skin sensitizer.
- Bisphenol A Epoxy Resin, CAS #: 25085-99-8: skin sensitizer.
- Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives, CAS #: 68609-97-2: skin sensitizer.

**Germ cell mutagenicity:**

This product contains components which may cause concern due to a possible mutagenic effects, but for which the available information is not adequate for making a satisfactory assessment.

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**Carcinogenicity:**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, EPA, OSHA, ACGIH.

**Reproductive toxicity:**

Based on available information, risk to humans is not expected from exposure to this product.

**Specific target organ toxicity, repeated exposure:**

Not known.

**Medical conditions aggravated by overexposure:**

Skin disorders if product is handled without adequate protection.

**Toxicity test results:** Not available for mixture. Results for components:

Components	Test Results
Bisphenol F Epoxy Resin, CAS #: 9003-36-5	<p><u>Acute Toxicity</u>                      Oral: LD50 (Rat, male and female): &gt; 5,000 mg/kg (OECD Test Guideline 401) GLP: yes                      Dermal:LD50 (Rat, male and female): &gt; 2,000 mg/kg (OECD Test Guideline 402) GLP: yes                      Skin corrosion/irritation: causes skin irritation.                      Serious eye damage/eye irritation (Rabbit): Causes serious eye irritation.</p> <p><u>Chronic Toxicity:</u>                      Sensitization, skin and respiratory: may cause an allergic skin reaction.                      Germ cell mutagenicity: in vitro: with and without metabolic activation (OECD Test Guideline 471, 473 and 476) Result: positive, GLP: yes; in vivo: Cell type: Somatic, Oral, 48 hrs: Dose: 2000 mg/kg (OECD Test Guideline 474 and 486) Result: negative, GLP: yes                      Carcinogenicity: No data available                      Reproductive Toxicity: Effects on fertility: Oral (Rat, male and female) (OECD Test Guideline 416) GLP: yes                      Effects on fetal development: Dermal (Rabbit, female): General Toxicity Maternal: NOAEL: 30 mg/kg body weight; Result: No teratogenic effects. GLP: yes                      STOT, RE: Ingestion (Rat, male and female), 13 Weeks/7days: NOAEL: 250 mg/kg (Subchronic toxicity)</p>
Bisphenol A Epoxy Resin, CAS #: 25085-99-8	<p><u>Acute Toxicity</u>                      Oral LD50 (Rat): &gt;5,000 mg/kg                      Dermal LD50 (Rabbit): 20,000 mg/kg                      Inhalation LC50 (Rat): No data available                      Skin corrosion/irritation (Rabbit): Prolonged and repeated contact may cause skin irritation with local redness.                      Serious eye damage/eye irritation (Rabbit): May cause eye irritation. Corneal injury is unlikely.</p> <p><u>Chronic Toxicity:</u>                      Sensitization, skin: Has caused allergic skin reactions in humans. Did not demonstrate the potential for contact allergy in mice.                      Germ cell mutagenicity: In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.                      Carcinogenicity: Many studies have been conducted to assess the potential carcinogenicity of DGEBA. The most recent review of the available data by the IARC has concluded that DGEBA is not classified as a carcinogen. Although some weak evidence of carcinogenicity has been reported in animals, when all of the data are considered, the weight of evidence does not show that DGEBA is carcinogenic.                      Reproductive toxicity: Not observed. Resins based on the DGEBA did not cause birth defects or other adverse effects on the fetus when pregnant rabbits were exposed by skin contact or by ingestion.                      STOT, RE: Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects.</p>
Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives, CAS #: 68609-97-2	<p><u>Acute Toxicity</u>                      Oral: LD50 (Rat, male): ca. 30.1 ml/kg, GLP: no                      Inhalation: LCO (Rat), 7hrs / vapor: &gt; 0.15 mg/L                      Skin corrosion/irritation: causes skin irritation.</p> <p><u>Chronic Toxicity:</u>                      Sensitization, skin and respiratory: may cause an allergic skin reaction.                      Germ cell mutagenicity: in vitro: with and without metabolic activation (OECD Test Guideline 476) Result: negative, GLP: yes; in vivo: Cell type: Somatic: intraperitoneal injection (OECD Test Guideline 474), Result: negative, GLP: yes                      Reproductive Toxicity: Dermal (Rat, female): NOEL: 200 mg/kg body weight (OECD Test Guideline 414), No teratogenic effects.                      STOT, RE: Dermal (Rat, male and female), 13 Weeks: NOEL: 1 mg/kg/d (Subchronic toxicity)</p>

### SECTION 12 – ECOLOGICAL INFORMATION

**Ecotoxicity:** Acutely and chronically hazardous for aquatic organisms. Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

**Persistence and degradability:** Expected to be moderately biodegradable based on components info.

**Bioaccumulative potential:** No significant accumulation in organisms is expected.

**Mobility in soil:** Not known.

**Other adverse effects:** Not known.

**Ecotoxicity test results:** Not available for the mixture. Results for components:

Components	Test Results
	<b>Ecotoxicity Ingredients:</b>
Bisphenol F Epoxy Resin, CAS #: 9003-36-5	<p><u>Acute Toxicity</u>                      Fish (rainbow trout), 96hrs: LC50: 0.55 mg/L (OECD Test Guideline 203, semi-static test, Fresh water), GLP: no                      Aquatic invertebrates (Daphnia magna), 48hrs: EC50: 1.6 mg/L (OECD Test Guideline 202, static test, Fresh water), GLP: no                      Algae (green algae), 72hrs: EC50: 1.8 mg/L (OECD Test Guideline 201, static test, Fresh water), GLP: no</p> <p><u>Chronic toxicity:</u>                      Aquatic invertebrates (Daphnia magna), 21days: NOEC: 0.3 mg/L(OECD Test Guideline 211, semi-static test, Fresh water),                      Activated sludge (Bacteria), 3hrs: IC50: &gt;100 mg/L (static test, Fresh water), GLP: no                      Persistence and degradability :</p>

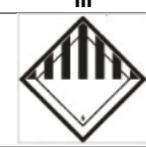
	<p>Biodegradability: Inoculum: activated sludge Concentration: 3 mg/L-Not readily biodegradable.                  Biodegradation, 28days: ca. 0 % (Directive 67/548/EEC Annex V, C.4.E.)                  Partition coefficient: n- octanol/water: log Pow: 2.7 - 3.6 (OECD Test Guideline 117) GLP: yes                  Mobility in soil: Distribution among environmental compartments: Koc: 4460 (OECD Test Guideline 121)</p>
Diglycidyl Ether of Bisphenol A Homopolymer, CAS #: 25085-99-8	<p><u>Acute Toxicity</u>                  Fish: LC50 (fathead minnow), 96hrs: 3.1 mg/L (OECD Guideline 203, static)                  Aquatic invertebrates: EC50 (Daphnia magna), 48hrs: 1.4 - 1.7 mg/L (OECD Guideline 202, part 1, static)  <u>Ecological Data</u>                  Microorganisms, IC50 (Bacteria), 18hrs: &gt; 42.6mg/L (Growth inhibition)                  Bioconcentration potential: moderate (BCF 100-3,000 or Log Pow between 3 and 5).                  Mobility in soil: Low (Koc 500-2,000) Based on its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.                  Henry's Law Constant (H): ≤ 6.94E-09 atm*m<sup>3</sup>/mole; @25 °C Estimated.                  Partition coefficient, n-octanol/water (log Pow): 3.7 - 3.9 Measured                  Partition coefficient, soil organic carbon/water (Koc): 1,800 - 4,400 Estimated.  <u>Elimination data</u>                  Biodegradability, 28days: 12% BOD of the ThOD; Not readily biodegradable (OECD Guideline 302 B); however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.</p>
Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives, CAS #: 68609-97-2	<p><u>Acute Toxicity</u>                  Fish (rainbow trout), 96hrs: LC50: 5,000 mg/L (OECD Test Guideline 203, static test, Fresh water), GLP: yes                  Aquatic invertebrates (Daphnia magna), 48hrs: EC50: 7.2 mg/L (OECD Test Guideline 202, static test, Fresh water), GLP: yes                  Algae (green algae), 72hrs: EC50: 843.75 mg/L (OECD Test Guideline 201, static test, Fresh water), GLP: no  <u>Chronic toxicity</u>                  Activated sludge (Bacteria), 3hrs: IC50: &gt;100 mg/L (OECD Test Guideline 209), GLP: yes                  Biodegradability: Inoculum: Domestic sewage Concentration: 100 mg/L - Readily biodegradable.                  Biodegradation, 28days: 87% (OECD Test Guideline 301F)                  Partition coefficient: n- octanol/water: log Pow: 3.77 (20 °C) (OECD Test Guideline 107) GLP: yes</p>

**SECTION 13 – DISPOSAL CONSIDERATIONS**

**Product Disposal:** The generation of waste should be avoided or minimized wherever possible. If product becomes a waste, it does not meet criteria of hazardous waste as defined in 40 CFR 261, Subpart C and D. Do not discharge into any sewers, on the ground, or into any body of water. Spill cleanup residues may still be subject to RCRA storage and disposal requirements. All disposal practices must be in compliance with local, state and federal regulations via licensed waste disposal contractor.

**Container disposal:** Even after emptying, container may retain residues. Empty containers should be completely drained and safely stored until appropriately reconditioned or disposed through licensed contractor in accordance with government regulations. This material and its container must be disposed of in a safe way.

**SECTION 14 – TRANSPORT INFORMATION**

	Land transport, U.S. DOT	Sea transport, IMDG:	Air transport, IATA/ICAO:
<b>UN number:</b>	Not regulated for transport	UN 3082	UN 3082
<b>UN proper shipping name:</b>		Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy Resin, Epoxy Phenol Novolac Resin)	Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy Resin, Epoxy Phenol Novolac Resin)
<b>Transport hazard class(es):</b>		9	9
<b>Packing group:</b>		III	III
<b>Hazard Label</b>			
<b>Special precautions:</b>		Marine pollutant: yes EMS Code: F-A,S-F	

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable for product as supplied.

**SECTION 15 – REGULATORY INFORMATION**

**U.S. Regulations:**

**OSHA HCS:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200.

**TSCA Regulations:**

All components of this product are listed or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

**EPCRA Section 302 (40 CFR Part 355)** (Emergency Response Planning, Extremely Hazardous Substance):

No components are subject to the reporting.

**EPCRA Section 304 (40 CFR Part 355)** (Emergency Release Notification Requirements):

No components are subject to the reporting.

**EPCRA Sections 311 & 312** (Hazardous Chemical Inventory Reporting, Hazard Categories):

Acute Health Hazard, Chronic health hazard

**EPCRA Section 313 (40 CFR Part 372)** (Toxic Chemical Release Inventory Reporting):

No components or impurities of this product are present above De Minimis level and therefore do not require reporting.

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### CERCLA Sections 102-103 (40 CFR Part 302) (Hazardous Substances Release Notification):

No components are subject to the reporting.

### Clean Air Act:

- This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
- This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
- This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCOMI Intermediate or Final VOC's (40 CFR 60.489).

### Clean Water Act:

- Section 307(a) (Toxic pollutants): No components are listed.
- Section 311(b)(2): Table 116.4A (Hazardous chemicals) / Table 117.3 (RQ): No components are listed.

**NFPA rating:** Health: 2 Fire: 1 Reactivity: 0 Special: -  
**HMIS rating:** Health: 2 Flammability: 1 Physical hazard: 0

### State Regulations:

California Prop. 65 Components:

This product contains a chemical known to State of California to cause cancer, birth defects, or any other reproductive harm.

- 1-chloro-2,3-epoxypropane, CAS #: 106-89-8; cancer and birth defects or other reproductive harm.

Instruction: for regulatory information on components of this mixture, check the appropriate state websites.

### International Regulations/Inventories:

Canadian Regulations: All ingredients of this product are listed or are exempt from the DSL.

WHMIS Classification (Controlled Products Regulations): Class D-2A: Material causing other toxic effects (Very Toxic).  
Class D-2B: Material causing other toxic effects (Toxic).

WHMIS Label Information:



Listed on the following inventories: AICS (Australia), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines)

## SECTION 16 – OTHER INFORMATION

**Disclaimer:** The data set forth in this sheet are based on information provided by the suppliers of the raw materials and chemicals used in the manufacture of the aforementioned product. Duracorp makes no warranty with respect to the accuracy of the information provided by their suppliers, and disclaims all liability of reliance thereof.

May 13, 2016

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## SAFETY DATA SHEET

### PRODUCT NAME: Vapor Block Epoxy-B

#### SECTION 1 – IDENTIFICATION

**Manufacturer's Info:****DURACORP**2560 Jason Court  
Oceanside, CA 92056**Product name: Vapor Block Epoxy-B****Chemical Family:** Epoxy Hardener**Information phone:** (760) 758-7240**Emergency contact:** CHEMTREC (800) 424 9300

#### SECTION 2 – HAZARD(S) IDENTIFICATION

**OSHA Hazard Communication Standard:**

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

**GHS-Label Elements:**      **Signal Word:**  
DANGER**Pictogram(s):**

GHS 06



GHS 05



GHS 08



GHS 09



GHS 07

**Classification of the substance or mixture:**

Hazard Class	Category	Hazard Statement Codes	Hazard Statements
Acute toxicity, Oral	4	H303	Harmful if swallowed
Acute Toxicity, Dermal	4	H312	Harmful in contact with skin
Acute Toxicity, Inhalation	3	H331	Toxic if inhaled
Skin corrosion / Irritation	1B	H314	Causes severe skin burns and eye damage.
Serious eye damage / Eye irritation	1	H318	Causes serious eye damage
Skin Sensitization	1	H317	May cause an allergic skin reaction
Reproductive toxicity	2	H361	Suspected of damaging fertility and the unborn child
Specific target organ toxicity, single exposure	3	H335	May cause respiratory irritation
Specific target organ toxicity, repeated exposure	2	H373	May cause damage to central nervous system through prolonged or repeated exposure by skin absorption.
Aquatic Hazard, Acute	1	H400	Very toxic to aquatic life
Aquatic Hazard, Long term	1	H410	Very toxic to aquatic life with long lasting effects
Flammable Liquids	4	H227	Combustible liquid

**Precautionary Statements:**

Prevention:	P201 P202 P281 P260 P270 P280 P285 P264 P272 P271 P273 P210	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe mist, vapors, spray. Do not eat, drink, and smoke when using this product. Wear protective gloves/ protective clothing / eye protection/ face protection. In case of inadequate ventilation wear respiratory protection. Wash exposed area with plenty of water and soap thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Keep away from flames and hot surfaces. No smoking.
Response:	P301 + P330 + P312 P331 P303 + P361 + P353  P333 + P313 P363 P305 + P351 + P338	IF SWALLOWED: Rinse mouth. Call a POISON CENTER or physician if you feel unwell. Do not induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

	P310	Immediately call a POISON CENTER or doctor/ physician.
	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.
	P308 + P313	IF exposed or concerned: Get medical advice/attention.
	P391	Collect spillage.
	P370 + P378	In case of fire: Use alcohol-resistant foam, dry chemical or carbon dioxide for extinction.
Storage:	P403 + P233 + P235 P405	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
Disposal:	P501	Dispose of contents/container to hazardous or special waste collection point in accordance with local/regional/national/international regulations.

**Hazards not otherwise classified:** No specific dangers known.

### SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS #	Concentration, %
Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine	186321-96-0	60 - 100
Benzyl Alcohol	100-51-6	13 – 30
Confidential Component 1	Trade Secret	3 - 7
Confidential Component 2	Trade Secret	3 - 7
Confidential Component 3	Trade Secret	1 - 5
4,4'-Isopropylidenediphenol	80-05-7	1 - 5

### SECTION 4 – FIRST-AID MEASURES

**Description of First Aid measures:**

- Inhalation:** Immediate medical attention required. 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. If unconscious, place in recovery position and maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person should be kept under medical surveillance for 48 hours.
- Skin:** Immediate medical attention required. Chemical burns must be treated promptly by a physician or dermatologist. Wash material off of the skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes immediately and wash them before reuse. For severe exposures, immediately get under safety shower and begin rinsing.
- Eye:** Immediate medical attention required. Chemical burns must be treated promptly by a physician or ophthalmologist. Rinse cautiously with water for several minutes, especially under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Do not rub eyes in order to prevent cornea injury.
- Ingestion:** Immediate medical attention required. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Remove dentures if any.  
If the exposed person is conscious, rinse mouth with water and then give plenty of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Do not induce vomiting unless directed to do so by medical personnel.  
If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

**Most important symptoms/effects, acute and delayed:** See Section 11 for details.

**General advice for First Aid responders:** No action should be taken involving any personal risk or without suitable training. If potential for exposure exist refer to Section 8 for specific personal protective equipment. Show this SDS to physician.

**Note to physician:** Specific antidotes or neutralizers do not exist. Treatment should be supportive and based on the judgment of the physician in response to the reaction of the patient. Symptoms of poisoning may even occur after several hours. Recommended medical monitoring for at least 48 hours.

Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed.

Skin: This product contains component that is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn.

Ingestion: Inducing vomiting can be contraindicated because of the irritating nature of the chemical.

**SECTION 5 – FIRE-FIGHTING MEASURES**

**Suitable extinguishing media:** Those recommended for Class B fuels: Alcohol-resistant foam, dry chemical or carbon dioxide fire extinguishers.

**Unsuitable extinguishing media:** Direct water stream may cause frothing, splattering of burning material, violent steam generation or eruption and spreading of fire.

**Specific hazards arising from the chemical:** If heated above its flash point, product will release flammable vapors which can burn in the open or be explosive in confined spaces if exposed to ignition source. Mists or sprays may be flammable below normal flash point. Keep away from extreme heat or open flame. Fire in vicinity poses risk of pressure build-up and rupture. Containers at risk from fire should be cooled with water and, if possible, removed from the danger area. Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

Hazardous combustion products: carbon dioxide, carbon monoxide, nitrogen oxides, amines, hydrogen cyanide, lower molecular weight organic molecules.

**Special Protective Equipment and Precautions for fire-fighters:** Wear NIOSH or OSHA approved self-contained breathing apparatus in positive pressure mode with full face piece and full protective gear. Isolate the scene by removing all persons from the incident area. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. No action should be taken involving any personal risk or without suitable training.

Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

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

Keep unnecessary and unprotected personnel from entering. Ensure adequate ventilation/exhaust extraction. Do not breath vapors or mist during clean up. Use protective equipment as described in Section 8. Do not touch or walk through spilled material, spilled material may cause a slipping hazard.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Inform the relevant authorities if the product has caused environmental pollution. Water polluting material. Harmful to the environment. See Section 12 for more details.

**Methods and materials for containment and cleaning up:** Remove mechanically; cover the remainder with non-combustible absorbent material (e.g. sand, earth, vermiculite or diatomaceous earth). Following absorption, transfer into properly labeled chemical waste containers. If necessary, repeat application of absorbent material until all liquid has been removed from the surface. Cover container, but do not seal, and remove from work area. Keep in a well ventilated area. If necessary, repeat application of absorbent material until all liquid has been removed from the surface. Wash the spill site with decontamination solution or with soap and water. Scrubbing the surface with a broom or brush helps the decontamination solution to penetrate into porous surfaces. Wait at least 15 minutes after first application. Cover the area again with absorbent material and shovel this into chemical waste container. Cover container, but do not seal, and remove from work area. Keep in a well ventilated area. After 72 hours, seal the container, and properly dispose of the waste material and any contaminated equipment (i.e., broom or brush) in accordance with existing federal, state and local regulations.

For major spills: Stop leak if without risk. Move containers from spill area. Remove ignition sources. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or contain and collect with an absorbent material as described in the previous paragraph.

For minor spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly with soap and water to remove residual contamination. Never return spills to original containers for re-use.

Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, see Section 1 for the Emergency contact; for further disposal measures, see Section 13.

**SECTION 7 – HANDLING AND STORAGE**

**Precautions for safe handling:** Protect chemical from atmospheric moisture. Avoid prolonged exposure to heat and air. Keep away from sources of ignition. Do not reseal if contamination is suspected.

Use adequate ventilation to keep airborne levels below the exposure limits. Do not inhale vapors and mists. Wear respiratory protection if material is heated, mixed, sprayed or used in a confined space. Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Wash hands thoroughly after handling. Hands and/or face should be washed before eating, drinking and smoking and at the end of the shift. Remove contaminated clothing and protective equipment before entering eating areas.

**Conditions for safe storage, including any incompatibilities:** Store in original or approved alternative container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.

Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Protect it against physical damage and moisture. Normal temperature and pressures do not affect the material. Keep liquid away from heat, sparks and flame. Do not cut, drill, grind, weld or perform similar operations on or near containers. Use appropriate containment to avoid environmental contamination.

**Storage stability:** Stable under normal conditions.

**Storage temperature:** 65 - 80°F (18 – 27°C)

Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200. Employees and consumers should be warned of health risks associated with product use. See Section 8 for additional information on hygiene measures.

### SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

**Control Parameters/Occupational exposure limit values:** Not available for mixture. Not available for components. See Section 15 for additional information.

**Appropriate engineering controls:** Good local and general ventilation should be sufficient to control worker exposure to airborne contaminants below recommended exposure limits. Local exhaust may be required in some areas.

**Personal protective equipment:**

**Eye/face protection:**

When directly handling liquid product, eye protection is required. Examples of eye protection include safety glasses and goggles or full face shield when there is a greater risk of splash. Contact lenses should not be worn when working with chemicals.

**Skin/body protection:**

Avoid contact with skin. Impervious gloves (nitrile butyl rubber, neoprene or PVC) should be worn always when working with this product. Body should be covered with appropriate clothing (apron, arm covers or full body suit) depending on the task being performed and the risks involved. Protective clothing should be selected and used in accordance with “Guidelines for the Selection of Chemical Protective Clothing” published by ACGIH. Wash contaminated clothing before reuse. Store work clothing separately. Appropriate footwear should be also selected based on the task being performed and the risks involved. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

**Respiratory protection:**

Use local or general ventilation to control exposures below applicable exposure limits. When ventilation is inadequate, use either an atmosphere supplying respirator or NIOSH or OSHA approved air-purifying respirator for organic vapors. Respirator must be properly fitted and its selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Additional Protective Measures:** Educate and train employees in safe handling of this product. Follow all label instructions. As a general hygiene practice, wash hands and face after use. Emergency eyewash fountains and safety shower should be in close proximity as a matter of good practice.

### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Light Yellow Liquid
<b>Odor:</b>	Irritating, Ammonia-like
<b>Odor threshold:</b>	Not available
<b>pH:</b>	10 - 12 [Cone. (% w/w): 10%]
<b>Melting point/ freezing point:</b>	Not available
<b>Initial boiling point and boiling range:</b>	135°C (275°F)
<b>Flash point:</b>	76°C (168.8°F) (Pensky-Martens Closed Cup)]
<b>Evaporation rate:</b>	Not available
<b>Flammability (solid, gas):</b>	Not applicable
<b>Upper/ lower flammability or explosive limits:</b>	Not available
<b>Vapor pressure:</b>	Not available
<b>Vapor density:</b>	Not available
<b>Relative density:</b>	1.01 g/cm <sup>3</sup> [20°C (68°F)]
<b>Solubility (water):</b>	Not available
<b>Partition coefficient n-octanol/water:</b>	Not available
<b>Auto-ignition temperature:</b>	Not available
<b>Decomposition temperature:</b>	>150°C (>302°F)
<b>Viscosity:</b>	700 to 2000 mPa·s (700 to 2000 cP)

**SECTION 10 – STABILITY AND REACTIVITY**

**Reactivity:** Hazardous Polymerization: Product will not undergo hazardous polymerization.  
 Corrosion to metals: Not known.  
 Oxidizing properties: Based on its structural properties the product is not classified as oxidizing.  
 Formation of flammable gases: Does not form flammable gases in the presence of water.

**Chemical stability:** Stable under recommended storage conditions. Product is hygroscopic; contamination with moisture will negatively affect product performance.

**Conditions to avoid:** Unintentional contact with moisture, excessive heat, open flame and sparks.  
**Incompatible materials:** Strong oxidizing agents. Water, bases, acids, copper, aluminum and zinc alloys.

**Hazardous decomposition products:** Depend upon temperature, air supply and presence of other materials. Can include, but are not limited to carbon dioxide, carbon monoxide, nitrogen oxides, amines, hydrogen cyanide, lower molecular weight organic molecules.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

**Likely Routes of Exposure:** Inhalation, Skin and Eye Contact, Ingestion.

**Symptoms of exposure:**

**Acute toxicity:**

**Oral:** Harmful if swallowed. May cause burns to mouth, throat and stomach. Adverse symptoms may include abdominal pain, nausea and diarrhea.

**Dermal:** Harmful in contact with skin. Adverse symptoms may include pain or irritation, redness, blistering and burns.

**Inhalation:** Can cause severe eye, skin and respiratory system irritation. Adverse symptoms may include nausea, headache and difficulties with breathing.

**Skin corrosion / irritation:**

Corrosive! Contact may result in in pain, severe local redness, burns and tissue damage. Prolonged contact may result in absorption of harmful amounts. A more severe response may be expected if skin is abraded (scratched or cut).

**Serious eye damage / eye irritation:**

Causes serious eye damage. Adverse symptoms may include tearing, redness, swelling, burning and blindness.

**Specific target organ toxicity, single exposure:** May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Aspiration hazard:** Not an aspiration hazard.

**Chronic toxicity:**

**Respiratory and Skin Sensitizer:**

This material contains components that are reported to be a skin sensitizer.

**Germ cell mutagenicity:**

This product does not contain component(s) suspected to have mutagenic effect.

**Carcinogenicity:**

Based on available information, this product does not contain component(s) known or reported to be carcinogenic by any reference by IARC, NTP, EPA, OSHA, ACGIH.

**Reproductive toxicity:**

This product contains component(s) reported to be suspected human reproductive toxicant.

**Specific target organ toxicity, repeated exposure:** N/A

**Medical conditions aggravated by overexposure:** N/A

**Toxicity test results:** Not available for mixture. Results for components:

Components	Test Results
Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine	<u>Acute Toxicity</u>
	Oral LD50 (Rat): >2000 mg/kg (OECD 423)
	Dermal LD50 (Rabbit): >2000 mg/kg (OECD 402)
	Inhalation LC50 (Rat): No data available
	Skin corrosion/irritation (Human skin model): Irritant (OECD 439- InVitro Skin Irritation - Reconstructed Human Epidermis Test Method)
	Serious eye damage/eye irritation (Rabbit): Severe irritant (OECD Bovine Corneal Opacity and Permeability Test Method for Identifying Ocular Corrosives and Severe Irritants)
	STOT, SE: No data available
	Aspiration hazard: No data available
	<u>Chronic Toxicity</u>
	Sensitization, skin and respiratory (mouse): skin sensitizer
	Germ cell mutagenicity: Not genotoxic
	Carcinogenicity: No data available
	Reproductive toxicity: Negative
	STOT, RE: Oral (Rat, Male, Female): NOAEL:1000 mg/kg/d (OECD 422 Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test, Sub-acute)

Benzyl Alcohol	<p><u>Acute Toxicity</u>                      Oral LD50 (Rat): 1620 mg/kg mg/kg (OECD 401)                      Dermal LD50 (Rabbit): No data available                      Inhalation LC50 (Rat), Dust and mist: &gt;4178 mg/m<sup>3</sup> (OECD 403)                      Skin corrosion/irritation (Rabbit): Non-irritant (OECD Test Guideline 404)                      Serious eye damage/eye irritation (Rabbit): Irritant (OECD Test Guideline 405)                      STOT, SE: No data available                      Aspiration hazard: No data available  <u>Chronic Toxicity</u>                      Sensitization, skin and respiratory (Guinea pig): Not sensitizing (Guinea pig maximization test) (OECD Test Guideline 406)                      Germ cell mutagenicity: Not genotoxic                      Carcinogenicity: Oral (Rat, Male, Female), 103 weeks; 5 days per week :NOAEL: 400 mg/kg - Negative (OECD 453)                      Reproductive toxicity: Negative                      STOT, RE: Oral (Rat, Male, Female): NOAEL: 400 mg/kg Sub-chronic                      Inhalation (Rat, Male, Female), 28-days or 14-days, Dusts and mists: NOEC: 1072 mg/m<sup>3</sup> (OECD 412, Study Sub-chronic)</p>
Confidential Component 1, CAS #: Trade Secret	<p><u>Acute Toxicity</u>                      Oral LD50 (Rat): 410 mg/kg mg/kg (OECD 401)                      Dermal LD50 (Rat): &gt;1000 mg/kg (OECD 402)                      Inhalation LC50 (Rat), Vapor: 24.8 mg/L (OECD 403)                      Skin corrosion/irritation (Rabbit): Corrosive (OECD Test Guideline 404)                      Serious eye damage/eye irritation (Rabbit): No data available                      STOT, SE: No data available                      Aspiration hazard: No data available  <u>Chronic Toxicity</u>                      Sensitization, skin and respiratory (Guinea pig): Sensitizing (Guinea pig maximization test) (OECD Test Guideline 406)                      Germ cell mutagenicity: Not genotoxic                      Carcinogenicity: No data available                      Reproductive toxicity: Negative                      STOT, RE: Oral (Rat, Male, Female), 28-days: NOAEL: 50 mg/kg/d (OECD 407, Sub-acute)                      Reproductive toxicity: The results of animal studies suggest a fertility impairing effect. Rat, Oral / Effects on newborn: growth statistics (e.g., reduced weight gain). Suspected human reproductive toxicant.</p>
Confidential Component 2, CAS #: Trade Secret	<p><u>Acute Toxicity</u>                      Oral LD50 (Rat, male): 2169 mg/kg (OECD 401)                      Dermal LD50 (Rat, male): &gt;971 mg/kg (unknown)                      Inhalation LC50 (Rat): No data available                      Skin corrosion/irritation (Rabbit): Corrosive (OECD Test Guideline 404)                      Serious eye damage/eye irritation (Rabbit): Corrosive (OECD Test Guideline 405)                      STOT, SE: No data available                      Aspiration hazard: No data available  <u>Chronic Toxicity</u>                      Sensitization, skin and respiratory (Guinea pig): Not sensitizing (Guinea pig maximization test) (OECD Test Guideline 406)                      Germ cell mutagenicity: Not genotoxic                      Carcinogenicity: No data available                      Reproductive toxicity: Negative                      STOT, RE: brain; Category 2                      Oral (Rat/Male, Female): NOEL: 15 mg/kg (OECD 422 Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test, Sub-acute)</p>
4,4'-Isopropylidenediphenol	<p><u>Acute toxicity</u>                      LD50 Oral - Rat - male and female - &gt; 2,000 - 5,000 mg/kg (OECD Test Guideline 401)                      LC50 Inhalation - Rat - male and female - 6 h - 170 mg/m<sup>3</sup>                      LD50 Dermal - Rabbit - 6,400 mg/kg                      Skin corrosion/irritation: Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)                      Serious eye damage/eye irritation Eyes – Rabbit Result: Severe eye irritation - 24 h                      Aspiration hazard: No data available  <u>Chronic Toxicity</u>                      Respiratory or skin sensitization: No data available                      Germ cell mutagenicity: Ames test (S. typhimurium) Result: negative; Mouse - male and female: Result: negative                      Carcinogenicity: 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, NTP, ACGIH and OSHA:                      Reproductive toxicity: Suspected of damaging fertility or the unborn child.                      STOT, SE: Inhalation - May cause respiratory irritation.                      STOT, RE: Rat - male and female - Oral - Lowest observed adverse effect level - 600 mg/kg;                      Stomach - Irregularities - Based on Human Evidence                      To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.</p>

**SECTION 12 – ECOLOGICAL INFORMATION**

**Ecotoxicity:** Very toxic to aquatic life with long lasting effects.

**Persistence and degradability:** Not known.

**Bioaccumulative potential:** Not known.

**Mobility in soil:** Not known.

**Other adverse effects:** Very toxic to aquatic life with long lasting effects. Do not allow product to reach ground water, water course or sewage system. Presents danger to drinking water if even small quantities leak into the ground.

**Ecotoxicity test results:** Not available.

### SECTION 13 – DISPOSAL CONSIDERATIONS

**Product Disposal:** The generation of waste should be avoided or minimized wherever possible. **Do not discharge into any sewers, on the ground, or into any body of water.** Spill cleanup residues may still be subject to RCRA storage and disposal requirements. All disposal practices must be in compliance with local, state and federal regulations via licensed waste disposal contractor.

**Container disposal:** Even after emptying, container may retain residues. Empty containers should be completely drained and safely stored until appropriately reconditioned or disposed through licensed contractor in accordance with government regulations.

This material and its container must be disposed of in a safe way.

### SECTION 14 – TRANSPORT INFORMATION

	Land transport, U.S. DOT	Sea transport, IMDG:	Air transport, IATA/ICAO:
<b>UN number:</b>	UN 2735	UN 2735	UN 2735
<b>UN proper shipping name:</b>	Amines, liquid, corrosive, n.o.s.,	Amines, liquid, corrosive, n.o.s.,	Amines, liquid, corrosive, n.o.s.,
<b>Transport hazard class(es):</b>	8	8	8
<b>Packing group:</b>	II	II	II
<b>Hazard Label</b>			
<b>Environmental Hazard:</b>	Yes, Marine pollutant	Yes, Marine pollutant Product contains environmentally hazardous substances: Polyoxypropyleneamines, Nonylphenol	Yes, Marine pollutant Product contains environmentally hazardous substances: Polyoxypropyleneamines, Nonylphenol
<b>Special precautions:</b>	The marine pollutant mark is not required when transported on inland waterways in sizes of ;;5 L or ;;5 kg or by road, rail, or inland air in non-bulk sizes.	The marine pollutant mark is not required when transported in sizes of ;;5 L or ;;5 kg. Emergency schedules (EmS) F-A S-8	The environmentally hazardous substance mark may appear if required by other transportation regulations. Passenger and Cargo Aircraft Quantity limitation: 1L Packaging instructions: 851 Cargo Aircraft Only Quantity limitation: 30 L Packaging instructions: 855

### SECTION 15 – REGULATORY INFORMATION

**U.S. Regulations:**

**OSHA HCS:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200.

**TSCA Regulations:**

All components of this product are listed or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

**EPCRA Section 302 (40 CFR Part 355)** (Emergency Response Planning, Extremely Hazardous Substance):

No components are subject to the reporting.

**EPCRA Section 304 (40 CFR Part 355)** (Emergency Release Notification Requirements):

No components are subject to the reporting.

**EPCRA Sections 311 & 312** (Hazardous Chemical Inventory Reporting, Hazard Categories):

Acute Health Hazard, Chronic health hazard, Fire Hazard

**EPCRA Section 313 (40 CFR Part 372)** (Toxic Chemical Release Inventory Reporting):

Contains a component that is subject to the reporting if present above De Minimus level.

4,4'-Isopropylidenediphenol, CAS #: 80-05-7

**CERCLA Sections 102-103 (40 CFR Part 302)** (Hazardous Substances Release Notification):

No components are subject to the reporting.

**Clean Air Act:**

- Ozone Depleting Substances (ODS): This product does not contain and is not manufactured with ozone depleting substances.
- Hazardous Air Pollutants, OSHA, Section 112(b), Table Z-1: No components are present.

**NFPA rating:** Health: 3 Fire: 1 Reactivity: 0 Special: -

**HMIS rating:** Health: 3 Flammability: 1 Physical hazard: 0

**State Regulations:**

Instruction: for regulatory information on components of this mixture, check the appropriate state websites.

**International Regulations/Inventories:**

Canadian Regulations:

DSL: All ingredients of this product are listed or are exempt from the DSL.

WHMIS Classification (Controlled Products Regulations):

Class D2A: Material causing other toxic effects (Very toxic)  
 Class D2B: Material causing other toxic effects (Toxic)  
 Class E: Corrosive  
 Class B3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F)

WHMIS Label Information:



### SECTION 16 – OTHER INFORMATION

#### LEGEND

GHS	Globally Harmonized System
CAS	Chemical Abstracts Services
EC	European Community
EPA	Environmental Protection Agency
OSHA	Occupational Safety and Health Administration
ACGIH	American Conference of Governmental Industrial Hygienists
NIOSH	National Institute of Occupational Safety and Health
PEL	Permissible Exposure Limits
TLV	Threshold Limit Value
REL	Recommended Exposure Limit
TWA	Time-Weighted Average
STEL	Short-term exposure limit
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
STOT, SE	Specific Target Organ Toxicity following Single Exposure
STOT, RE	Specific Target Organ Toxicity following Repeated Exposure
DOT	Department of Transportation
IMDG	International maritime dangerous goods code
IATA, ICAO	International Air Transport Association, International Civil Aviation Organization
TSCA	Toxic Substances Control Act
EPCRA	Emergency Planning and Community Right-to-Know Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
RQ	Reportable Quantity
TQ	Threshold Quantity
TPQ	Threshold Planning Quantity
EHS	Extremely Hazardous Substances
DSL	Domestic Substance List
WHMIS	Workplace Hazardous Materials Information System

**Latest revision date:** December 3, 2015 – Preparation of SDS in accordance to the GHS requirements

**Date of the previous revision:** Not available

**Disclaimer:** The data set forth in this sheet are based on information provided by the suppliers of the raw materials and chemicals used in the manufacture of the aforementioned product. Duracorp makes no warranty with respect to the accuracy of the information provided by their suppliers, and disclaims all liability of reliance thereof.