

**PRODUCT NAME(S): Rhino 1501 Epoxy Resin (Part A)**

**SECTION 1 – IDENTIFICATION**

**Manufacturer's Info:**  
Rhino Linings Corporation  
9747 Businesspark Avenue  
San Diego, CA, 92131

**Product name:** Rhino 1501 Epoxy Resin (Part A)

**Information phone:** (858) 450 0441  
**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 08



GHS 07



GHS 09

**Classification of the substance or mixture:**

Hazard Class	Category	Hazard Statement Codes	Hazard Statements
Acute Toxicity, Oral	5	H303	May be harmful if swallowed
Acute Toxicity, Dermal	5	H313	May be harmful in contact with skin
Skin corrosion / Irritation	2	H315	Causes skin irritation
Serious eye damage / Eye irritation	2A	H319	Causes serious eye irritation
Skin Sensitization	1B	H317	May cause an allergic skin reaction
Carcinogenicity	1B	H350	May cause cancer by inhalation and skin absorption
Reproductive Toxicity	2	H361	Suspected of damaging fertility or the unborn child
Specific target organ toxicity, single exposure	1 3	H370 H335	Causes damage to blood system and stomach May cause respiratory irritation
Specific target organ toxicity, repeated exposure	1	H372	Causes damage to kidney, blood, skin, adrenal glands and bones through prolonged or repeated exposure
Aquatic Hazard, Acute	2	H401	Toxic to aquatic life
Aquatic Hazard, Long term	2	H411	Toxic to aquatic life with long lasting effects
Flammable Liquids	4	H227	Combustible liquid

**Precautionary Statements:**

<b>Prevention:</b>	P201 P202 P281 P260 P270 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 or smoke when using this product. 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.
<b>Response:</b>	P303 + P361 + P353  P333 + P313 P363 P305 + P351 + P338  P337 + P313 P304 + P340 + P312  P308 + P313 P391 P370 + P378	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. If eye irritation persists: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF exposed or concerned: Get medical advice/attention. Collect spillage. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

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Storage: P403 + P233 + P235 Store in a well-ventilated place. Keep container tightly closed. Keep cool.  
P405 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 #	EC #	Concentration, %
Bisphenol A Reaction Product	Trade Secret	Trade Secret	40 – 60
Diglycidyl Ether of Bisphenol A Homopolymer (DGEBA)	25085-99-8	607-537-5	5 – 15
Ethylene Glycol Monopropyl Ether	2807-30-9	220-548-6	1 – 10
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	265-155-0	0.02 – 0.60
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	265-169-7	0.02 – 0.60

**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.

**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:** 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. If eye irritation develops and persists, consult a physician or ophthalmologist.

**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 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:** 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. 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 components that are 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, carbon dioxide fire extinguishers and dry sand.

**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:** Flammable Liquid, Category 4 per GHS. Keep away from extreme heat or open flame. 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. Vapors may be heavier than air and travel considerable distance to a source of ignition and flash back. Mists or sprays may be flammable below regular flash points.

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. If released, product may float and ignite on surface of water.

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- Ethylene Glycol Monopropyl Ether, CAS #: 2807-30-9: Flash Point: 48°C (118°F) - Flammable Liquid, Category 3 per GHS. Combustible Liquid, Class II per OSHA 29 CFR 1910.106.

Hazardous Combustion products: carbon and nitrogen oxides, amines, phenol, hydrogen cyanide, formaldehyde, acid aldehydes, lower molecular weight organic molecules. Creates dense black smoke 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. Prevent static discharge. 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. Always stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. No action should be taken involving any personal risk or without suitable training.

Water contaminated with this material must be contained and prevented being discharged to any waterway, sewer or drain. 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. Eliminate all sources of ignition. Beware of vapors accumulating to form explosive concentrations. 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.

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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:** Not available for mixture. Results for components are listed in Section 15.

**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>	Viscous Liquid
<b>Odor:</b>	Slightly ammonia-like
<b>Odor threshold:</b>	Not available
<b>pH:</b>	Not available
<b>Melting point/ freezing point:</b>	Not available for mixture; EGME: -75°C (-103°F)
<b>Initial boiling point and boiling range:</b>	Not available for mixture; EGME: 150-153°C (302-307°F)
<b>Flash point:</b>	Not available for mixture; EGME: 48°C (118°F) - 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 for mixture; EGME: 16% (vol) / 1.3% (vol)
<b>Vapor pressure:</b>	Not available for mixture; EGME: 1.7 hPa (1.3 mmHg) at 20°C (68°F)
<b>Vapor density:</b>	Not available
<b>Relative density:</b>	Not available for mixture; EGME: 0.913 g/cm <sup>3</sup> at 25°C (77°F)
<b>Solubility (water):</b>	Not available
<b>Partition coefficient n-octanol/water:</b>	Not available for mixture; EGME: log Pow: 0.673 at 40°C (104°F)
<b>Auto-ignition temperature:</b>	Not available
<b>Decomposition temperature:</b>	Not available
<b>Viscosity:</b>	Not available

EGME-Ethylene Glycol Monopropyl Ether

### 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. Due to the certain components, product requires special attention during handling and storing.

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- Ethylene Glycol Monopropyl Ether, CAS #: 2807-30-9: Flash Point: 48°C (118°F) - Flammable Liquid, Category 3 per GHS. Combustible Liquid, Class II per OSHA 29 CFR 1910.106.

**Conditions to avoid:** Excessive heat, open flame and sparks. Avoid pressure and mist formation.

**Incompatible materials:** Strong 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 and nitrogen oxides, amines, phenol, hydrogen cyanide, formaldehyde, acid aldehydes, lower molecular weight organic molecules. Creates dense black smoke when burned without sufficient oxygen.

<b>SECTION 11 – TOXICOLOGICAL INFORMATION</b>
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**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:** Irritating to the respiratory system, especially if handled at elevated temperatures. Adverse symptoms may include nausea, runny nose, sore throat, coughing, difficulties with breathing and headache.

**Skin corrosion / irritation:**

Irritating to skin. Skin contact may result in dermatitis, either irritative or allergic with symptoms of reddening, itching, and swelling.

**Serious eye damage / eye irritation:**

May cause serious eye irritation. Adverse symptoms may include tearing, redness, itching and swelling.

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

Product contains components that may affect respiratory system, blood and stomach after single exposure.

Bisphenol A Reaction Product, CAS #: Trade Secret: May cause respiratory irritation.

Ethylene Glycol Monopropyl Ether, CAS #: 2807-30-9: Category 3 (respiratory system); Category 1 (blood, stomach)

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

**Chronic toxicity:**

**Respiratory and Skin Sensitizer:**

This product contains components that are reported to be a skin or respiratory sensitizer.

Bisphenol A Reaction Product, CAS #: Trade Secret: skin sensitizer.

Diglycidyl Ether of Bisphenol A Homopolymer, CAS #: 25085-99-8: skin sensitizer.

**Germ cell mutagenicity:**

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

**Carcinogenicity:**

This product contains components that are reported carcinogens:

Distillates (petroleum), hydrotreated heavy naphthenic, CAS #: 64742-52-5

Distillates (petroleum), solvent-dewaxed heavy paraffinic, CAS #: 64742-65-0

**Reproductive toxicity:**

This product contains components that are suspected of damaging fertility or the unborn child:

Distillates (petroleum), hydrotreated heavy naphthenic, CAS #: 64742-52-5

Distillates (petroleum), solvent-dewaxed heavy paraffinic, CAS #: 64742-65-0

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

Kidney, stomach, blood, skin, adrenal glands and bones.

**Medical conditions aggravated by overexposure:**

Kidney, blood, skin, adrenal glands and bones disorders if product is handled without adequate protection.

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

Components	Test Results
Bisphenol A Reaction Product, CAS #: Trade Secret	Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause respiratory irritation.
Diglycidyl Ether of Bisphenol A Homopolymer, CAS #: 25085-99-8	<p><u>Acute Toxicity</u>            Oral LD50 (Rat): &gt;15,000 mg/kg; Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.            Dermal LD50 (Rabbit): 23,000 mg/kg. Prolonged skin contact is unlikely to result in absorption of harmful amounts.            Inhalation LC50 (Rat): At room temperature, exposure to vapor is minimal due to low volatility. Vapor from heated material, mist or aerosols may cause respiratory irritation.            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.            STOT, SE: Evaluation of available data suggests that this material is not an STOT-SE toxicant.            Aspiration Hazard: Based on physical properties, not likely to be an aspiration hazard.</p> <p><u>Chronic Toxicity</u>            Sensitization, skin: For similar material(s): Has caused allergic skin reactions in humans. Has demonstrated the potential for contact allergy in mice. For respiratory sensitization: No relevant data found.            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</p>

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	<p>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>
Ethylene Glycol Monopropyl Ether, CAS #: 2807-30-9	<p><b>Acute Toxicity:</b>  Oral LD50 (Rat): 3,089 mg/kg. Nutritional and Gross Metabolic: Weight loss or decreased weight gain.  Dermal LD50 (Rat): 870 mg/kg; (Rabbit): 1,337 mg/kg  Inhalation LC50 (mouse), 7hrs: 1,530 ppm. numbness; thorax, respiration; kidney, uterine, bladder.  Skin corrosion/irritation (Rabbit and Guinea pig), 24hrs: Mild irritation.  Serious eye damage/eye irritation (Rabbit): severe irritation.  STOT, SE: Category 3 (Respiratory tract irritation); Category 1 (blood system, stomach)  Aspiration hazard: No</p> <p><b>Chronic toxicity:</b>  Sensitization, skin and respiratory: Did not cause sensitisation on laboratory animals (OECD Test Guideline 406).  Germ cell mutagenicity: in vitro assay (S. typhimurium): 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: Inhalation (Rat): Maternal Effects: Other effects. Specific Developmental Abnormalities: Musculoskeletal system; Oral (Mouse): Effects on Newborn: Stillbirth.  STOT, RE: Category 1 (kidney); Oral (Rat, male) NOEL: &lt;195 mg/kg; LOEL: 195 mg/kg  Stomach - Irregularities - Based on Human Evidence</p>
Distillates (petroleum), hydrotreated heavy naphthenic, CAS #: 64742-52-5	<p><b>Acute Toxicity:</b>  Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.  Oral LD50 (Rat): &gt;5,000 mg/kg  Dermal LD50 (Rabbit): &gt;5,000 mg/kg  Inhalation LC50 (Rat): &gt;5 mg/L: harmful if inhaled. Inhalation of vapors or mists may cause irritation to the respiratory system.  Skin corrosion/irritation (Rabbit): Causes skin irritation. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin. Expected to be resulting in disorders such as oil acne/folliculitis.  Serious eye damage/eye irritation (Rabbit): causes serious eye irritation or damage.  STOT, SE: No data available.  Aspiration hazard: Category 1. May be fatal if swallowed and enters airways.</p> <p><b>Chronic toxicity:</b>  Sensitization, skin and respiratory: Not expected to be a skin sensitizer.  Germ cell mutagenicity: Not considered a mutagenic hazard.  Carcinogenicity: Category 1B. May cause cancer.  Reproductive toxicity: Category 2. Suspected of damaging fertility or the unborn child by skin absorption.  STOT, RE: Category 1. Causes damage to adrenal glands and bones through prolonged or repeated exposure by skin absorption.</p>
Distillates (petroleum), solvent-dewaxed heavy paraffinic, CAS #: 64742-65-0	<p>Aspiration hazard: Category 1. May be fatal if swallowed and enters airways.  Carcinogenicity: Category 1B. May cause cancer.  Reproductive toxicity: Category 2. Suspected of damaging fertility or the unborn child by skin absorption.  STOT, RE: Category 1. Causes damage to adrenal glands and bones through prolonged or repeated exposure by skin absorption.</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.

**Persistence and degradability:** Not known.

**Bioaccumulative potential:** Not known.

**Mobility in soil:** Not expected.

**Other adverse effects:** Not known.

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

Components	Test Results
Bisphenol A Reaction Product, CAS #: Trade Secret	Aquatic, Chronic: Category 2. Toxic to aquatic life with long lasting effects.
Diglycidyl Ether of Bisphenol A Homopolymer, CAS #: 25085-99-8	<p><b>Acute Toxicity:</b>  Fish: LC50 (fathead minnow), 96hrs: 3.1 mg/L (OECD Guideline 203, static)  Fish: LC50 (rainbow trout), 96hrs: 2 mg/L (semi-static)  Aquatic invertebrates: EC50 (Daphnia magna), 48hrs: 1.8 mg/L (OECD Guideline 202, part 1, static)  Aquatic plants EC50 (fresh water algae), 72hrs: 11 mg/L (Growth rate inhibition, static test)  Microorganisms, IC50 (Bacteria), 18hrs: &gt; 42.6mg/L (Respiration rates)</p> <p><b>Chronic toxicity:</b>  Aquatic invertebrates: EC50 (Daphnia magna), 21days: 0.55 mg/L (Maximum Acceptable Toxicant Level, semi-static, number of offspring)</p> <p><b>Ecological Data:</b>  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.  Theoretical Oxygen Demand: 2.35 mg/mg Estimated.  Photodegradation: Atmospheric half-life: 1.92 hours (Half-life (indirect photolysis), estimated)  Bioaccumulative 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): <math>\leq 6.94E-09 \text{ atm} \cdot \text{m}^3/\text{mole}</math>; @25 °C Estimated. Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.  Partition coefficient, n-octanol/water (log Pow): 3.7 - 3.9 Measured; 3.242 at 25 °C Estimated.  Mobility in soil: Partition coefficient, soil organic carbon/water (Koc): 1,800 - 4,400 Estimated.</p>

<p>Ethylene Glycol          Monopropyl Ether,          CAS #: 2807-30-9</p>	<p><u>Acute Toxicity:</u>          Fish (fathead minnow), 96hrs: LC50: &gt;5,000 mg/L; (bluegill), 96hrs: LC50: &gt;5,000 mg/L (static test).          Aquatic Invertebrates (Daphnia magna), 48hrs: EC50: &gt;5,000 mg/L          Aquatic Plants (algae), 72hrs: EC50: &gt;100 mg/L (OECD Test Guideline 201)  <u>Ecological data:</u>          Persistence and degradability: No data available. BOD-5: 200 mg/L; BOD-20: 500 mg/L; COD: 2.04 g/g          Bioaccumulative potential: LogPow: 0.08. Does not significantly accumulate in organisms.          Mobility in soil: Koc: 1.55 log Koc: 0.19          Results of PBT and vPvB assessment: Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria; Not fulfilling vPvB (very persistent, very bioaccumulative) criteria.</p>
<p>Distillates (petroleum),          hydrotreated heavy          naphthenic,          CAS #: 64742-52-5</p>	<p><u>Acute Toxicity:</u>          Poorly soluble mixture. May cause physical fouling of aquatic organisms. (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract).          Fish: LL/EL/IL50: &gt;100 mg/L; Practically nontoxic.          Aquatic Invertebrates: LL/EL/IL50: &gt;100 mg/L; Practically nontoxic.          Algae: LL/EL/IL50: &gt;100 mg/L; Practically nontoxic.          Microorganisms: LC/EC/IC50: &gt;100 mg/L; Practically nontoxic.  <u>Chronic toxicity:</u>          Fish: NOEC/NOEL: &gt;100 mg/L (based on test data)          Aquatic Invertebrates: NOEC/NOEL: 1-10 mg/L (based on test data)  <u>Ecological data:</u>          Persistence and degradability: Major constituents are expected to be readily biodegradable, but the product contains components that may persist in the environment.          Bioaccumulative potential: No data available.          Mobility in soil: Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.          Result of the PBT and vPvB assessment: The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB.          Other Adverse Effects: Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.          Incomplete ecotoxicological data are available for this product. The information given below is based partly on a knowledge of the components and the ecotoxicology of similar products.</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 sewer system. Spill cleanup residues may still be subject to RCRA storage and disposal requirements. Dispose waste 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 regulation. 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>	Non-regulated	UN 3082	UN 3082
<b>UN proper shipping name:</b>		Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin)	Environmentally hazardous substance, liquid, n.o.s. (Epoxy 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	

**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

Released: February 2, 2016

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

The following component of this product is present above De Minimis level and therefore requires reporting.

- Ethylene Glycol Monopropyl Ether, CAS #: 2807-30-9 (N230-certain glycol ethers): in product: 5-15%; De Minimis: 1%

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

The following component is subject to the reporting if a criterion of reportable quantity is fulfilled:

- Ethylene Glycol Monopropyl Ether, CAS #: 2807-30-9 (N230-certain glycol ethers): RQ: not assigned.

**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 listed.

**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: 2 Reactivity: 1 Special: 0

**HMIS rating:** Health: 2 Flammability: 2 Physical hazard: 1

**State Regulations:**

California Prop. 65 Components:

This product does not contain chemicals known to State of California to cause cancer, birth defects, or any 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 D1B: Material causing immediate and serious toxic effects (Toxic).

WHMIS Label Information: Class D2B: Material causing other toxic effects (Toxic).

Class B3: Combustible Liquid



**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:** February 2, 2016 – Preparation of SDS in accordance to the GHS requirements

**Date of the previous revision:** September 21, 2011

**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. Rhino Linings Corporation makes no warranty with respect to the accuracy of the information provided by their suppliers, and disclaims all liability of reliance thereof.