Rhino Linings®

SAFETY DATA SHEET **Part No.: E500B**

Date: April 8, 2021

PRODUCT NAME(S): Epoxy 500 Hardener – Part B

SECTION 1 – IDENTIFICATION

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

Information phone: (858) 450 0441
Emergency contact: CHEMTREC (800) 424 9300

Product Name: **Epoxy 500 Hardener – Part B**
Chemical Name: Cycloaliphatic Amines

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 05 GHS 07

Classification of the substance or mixture:

Hazard Class	Category	Hazard Statement Codes	Hazard Statements
Acute Toxicity, Oral	4	H302	Harmful if swallowed
Acute Toxicity, Dermal	4	H312	Harmful in contact with skin
Acute Toxicity, Inhalation	4	H332	Harmful if inhaled
Skin Corrosion/Irritation	2	H315	Causes skin irritation
Skin Sensitization	1	H317	May cause an allergic skin reaction
Serious Eye Damage/Eye Irritation	1	H318	Causes serious eye damage
Germ Cell Mutagenicity	2	H341	Suspected of causing genetic defects
Specific Target Organ Toxicity, Repeated Exposure	2	H373	May cause damage to organs through prolonged or repeated exposure

Precautionary Statements:

Prevention:	P201	Obtain special instructions before use.
	P202	Do not handle until all safety precautions have been read and understood.
	P260	Do not breathe dust, fume, gas, mist, vapors, spray.
	P264	Wash exposed area with plenty of water and soap thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P271	Use only outdoors or in a well-ventilated area.
	P272	Contaminated work clothing should not be allowed out of the workplace.
	P280	Wear protective gloves, protective clothing, eye protection, face protection.
	P281	Use personal protective equipment as required.
Response:	P301+P330+P331	**IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting.
	P312	Call a POISON CENTER or doctor/physician if you feel unwell.
	P302+P352	**IF ON SKIN:** Wash with plenty of soap and water.
	P312	Call a POISON CENTER or doctor/physician if you feel unwell.
	P333+P313	If skin irritation or a rash occurs: Get medical advice/attention.

	P362	Take off contaminated clothing and wash before reuse.
	P304+P340	**IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P312	Call a POISON CENTER or doctor/physician if you feel unwell.
	P305+P351+P338	**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.
	P308+P313	**IF exposed or concerned:** Get medical attention or advice.
Storage:	P405	Store locked up.
Disposal:	P501	Dispose of contents/container to an approved waste disposal plant.

Hazards Not Otherwise Classified (HNOC): None known.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS #	EC #	Concentration, %
Benzyl Alcohol	100-51-6	202-859-9	25 – 45
4,4'-methylenebis(cyclohexylamine)	1761-71-3	217-168-8	5 – 10
Formaldehyde, Polymer with benzeneamine, hydrogenated	135108-88-2	603-894-6	25 – 45
Organic acid	---	923-085-4	1 – 5
Teta, reaction products with phenol/formaldehyde	32610-77-8	500-083-8	15 – 25
Triethylenetetramine	112-24-3	203-950-6	1 – 5
Phenol	108-95-2	203-632-7	1 – 5

SECTION 4 – FIRST-AID MEASURES

Description of First Aid measures:

Inhalation: Move to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory problems, seek immediate medical attention.

Skin: Wash material off of the skin with plenty of soap and water for at least 15-20 minutes. Remove contaminated clothing and shoes immediately and wash them before reuse. Get medical advice/attention if irritation occurs. Can cause allergic reaction in sensitive individuals.

Eye: Can cause severe or permanent eye damage/disease. 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 to 60 minutes. Do not rub eyes in order to prevent corneal injury. Get medical advice/attention if eye irritation persists.

Ingestion: Prevent aspiration of vomit. Turn victim's head to the side. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed: Repeated and/or prolonged exposure can result In adverse skin effects (such as rash, irritation, allergies or corrosion). Adverse eye effects (such as conjunctivitis or corneal damage), eye disease. 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. 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 24hours.

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable extinguishing media: Alcohol-resistant foam, Carbon dioxide (CO^2), Dry Chemical, Dry sand, or Limestone powder.

Unsuitable extinguishing media: No test data available.

Specific hazards arising from the chemical: Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.

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. No action should be taken involving any personal risk or without suitable training.

Further Information: Do not allow run-off from fire-fighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local 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. 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. 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. Wash the spill site with soap and water. Cover container and remove from work to 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. Move containers from spill area. Approach release from upwind. Contain spillages 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. Neutralize with very dilute acid, if necessary.

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: Use personal protective equipment. Do not breathe vapors and mists or ingest. Avoid contact with skin and eyes. Use only in well-ventilated areas. Wear appropriate respiratory, eye and skin protection. Wash hands thoroughly after handling. Do not use sodium nitrate or other nitrosating agents in formulations containing this product. Suspected cancer-causing nitrosamines could be formed. Do not store in reactive metal containers.

Conditions for safe storage, including any incompatibilities: Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10 for details), food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed. Protect from freezing. Keep out of the reach of children. Do not store near acids. Keep away from alkalis.

Storage stability: Stable under normal conditions.
Recommended storage temperature: 60-90°F (16-32°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. As listed in the OSHA Occupational Chemical Database and OARS-WEEL Database.

OSHA PEL 8-hour TWA (ST) STEL (C) Ceiling Peak		**NIOSH REL** Up to 10-hour TWA (ST) STEL (C) Ceiling		**ACGIH TLV©** 8-hour TWA (ST) STEL (C) Ceiling		**Cal/OSHA PEL** 8-hour TWA (ST) STEL (C) Ceiling Peak	
PHENOL – CAS # 108-95-2							
PEL-TWA	5 ppm (19 mg/m³)	**REL-TWA**	5 ppm (19 mg/m³)	**TLV-TWA**	5 ppm [1992]	**PEL-TWA**	5 ppm (19 mg/m³)
PEL-STEL		**REL-STEL**		**TLV-STEL**		**PEL-STEL**	
PEL-C		**REL-C**	15.6 ppm (60 mg/m³) [15 minutes]	**TLV-C**		**PEL-C**	
		IDLH	250 ppm				
Skin Notation	Y	**Skin Notation**	N	**Skin Notation**	Y	**Skin Notation**	Y
Carcinogenicity classifications: IARC-3, TLV-A4, EPA-I; D							
AIHA emergency response planning guidelines - ERPG-1/ERPG-2/ERPG-3: 10 ppm/50 ppm/200 ppm							
AIHA OARS-WEEL: ---							
BENZYL ALCOHOL – CAS # 100-56-1							
AIHA OARS-WEEL: 10 ppm [2008] 8-hour TWA							
TRIETHYLENETETRAMINE – CAS # 112-24-3							
AIHA OARS-WEEL: 1 ppm (skin) [2009] 8-hour TWA							

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 the product, eye protection is required. Examples of eye protection include safety glasses with side shields or chemical goggles. Contact lenses should not be worn when working with chemicals.

Skin/body protection:

Impervious, waterproof, abrasion and alkali-resistant gloves should be worn always when working with this product. Do not rely on barrier creams in place of impervious gloves. Do not get product inside gloves. 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. Remove clothing and protective equipment that becomes saturated with the product and immediately wash exposed areas of the body. 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.

Respiratory protection:

Use properly fitted, vapor/particulate filter or air feed/supplied respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and assigned protection factor 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. Use administrative controls such job rotation to supplement engineering controls. Emergency eyewash fountains and safety shower should be in close proximity as a matter of good practice.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Amber Liquid
Odor:	Amine-like
Odor threshold:	Not available for mix
pH:	Alkaline
Melting point/ freezing point:	Not available for mix / not available for mix
Initial boiling point and boiling range:	>222°C (431°F)
Flash point:	>104°C (219°F)
Evaporation rate:	Not available for mix
Flammability (solid, gas):	Not available for mix
Upper/ lower flammability or explosive limits:	Not available for mix
Vapor pressure:	No Data Available
Vapor density:	Not available for mix
Specific Gravity:	Not available for mix
Solubility (water):	Not available for mix
Partition coefficient n-octanol/water:	Not available for mix
Auto-ignition temperature:	Not available for mix
Decomposition temperature:	Not available for mix
Viscosity:	Not available for mix

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: Product will not undergo hazardous polymerization. Based on its structural properties the product is not classified as oxidizing.

Chemical stability: Stable under recommended storage conditions.

Conditions to avoid: Do not freeze. To avoid thermal decomposition, do not overheat. Avoid prolonged exposure above 250°C. Potentially violent decomposition can occur above 350°C.

Incompatible materials: N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations. Nitrous acid and other nitosating agents, organic acids (i.e. acetic acid, citric acid etc.), Mineral acids, Oxidizing agents and Sodium hypochlorite, Halogenated compounds and amines. Products slowly corrodes copper, aluminum, zinc, and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide, possibly creating an explosion. Exothermic reaction.

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced. In fire conditions, depending on temperature, air supply and presence of other materials, decomposition products can include, but are not limited to Nitric Acid, Ammonia, Nitrogen Oxides, Nitrogen oxide can react with water vapors to form corrosive nitric acid, carbon monoxide, Carbon dioxide, or Nitrosamine (Section 3).

SECTION 11 – TOXICOLOGICAL INFORMATION

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

Acute Toxicity:

Oral:
Harmful swallowed.

Dermal:
Harmful in contact with skin. Causes skin irritation.
Improper handling of the product may cause skin irritation and in some cases severe skin burns.

Inhalation:
Harmful if inhaled.
Improper handling of the product may cause severe eye, skin, and respiratory tract burns.

Serious eye damage / eye irritation:
Causes serious eye damage.

Specific target organ toxicity, single exposure:
Not classified.

Aspiration hazard:
Not classified.

Chronic Toxicity:

Respiratory and Skin Sensitizer:

May cause an allergic skin reaction.

Germ cell mutagenicity:

Suspected of causing genetic defects.

Carcinogenicity:

Not classified.

Reproductive toxicity:

Not classified.

Specific target organ toxicity, repeated exposure:

May cause damage to organs through prolonged or repeated exposure if swallowed.

Medical conditions aggravated by overexposure:

In some cases, improper handling could result in skin/tissue burns or sensitization.

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

Components	Test Results
Benzyl alcohol CAS #: 100-51-6	Acute Toxicity Oral Toxicity LD50: 1,200 mg/kg (Rat) Dermal Toxicity: No data is available on the product itself. Inhalation: No data available on the product itself. Serious eye damage/eye irritation: Risk of serious damage to the eyes. Chronic Toxicity Sensitization: May cause sensitization of susceptible persons by skin contact. Carcinogenicity: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Mutagenicity: No data available on the product itself. Teratogenicity: A component has been shown to cause reproductive/teratogenic effects in laboratory animals. Repeated dose: Mixed polycycloaliphatic amines was tested in rats for systemic effects in a subchronic (28-day) oral study at doses ranging from 15 to 300 mg/kg/day. Effects seen at 300 mg/kg/day included decreased survival, decreased body weight gain, increased liver, kidney,and adrenal weights and histological changes in the liver, kidney, adrenals and spleen. The No-Observed-Adverse-Effect-Level (NOAEL) was 15 mg/kg/day. Rats exposed orally to 800 mg/kg benzyl alcohol for thirteen weeks exhibited CNS depression and histopathological changes in the brain, thymus and skeletal muscles. The No Observed Adverse Effect Level (NOAEL) was 400 mg/kg. No evidence of carcinogenicity was seen in a two-year study with rats and mice. STOT-SE: No data available. STOT-RE: No data available.
4,4'-methylenebis (cyclohexylamine) CAS #: 1761-71-3	Acute Toxicity Oral Toxicity LD50: 1,200 mg/kg (Rat) Dermal Toxicity: No data is available on the product itself. Inhalation: No data available on the product itself. Serious eye damage/eye irritation: Risk of serious damage to the eyes. Chronic Toxicity Sensitization: May cause sensitization of susceptible persons by skin contact. Carcinogenicity: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Mutagenicity: No data available on the product itself. Teratogenicity: A component has been shown to cause reproductive/teratogenic effects in laboratory animals. Repeated dose: Mixed polycycloaliphatic amines was tested in rats for systemic effects in a subchronic (28-day) oral study at doses ranging from 15 to 300 mg/kg/day. Effects seen at 300 mg/kg/day included decreased survival, decreased body weight gain, increased liver, kidney,and adrenal weights and histological changes in the liver, kidney, adrenals and spleen. The No-Observed-Adverse-Effect-Level (NOAEL) was 15 mg/kg/day. Rats exposed orally to 800 mg/kg benzyl alcohol for thirteen weeks exhibited CNS depression and histopathological changes in the brain, thymus and skeletal muscles. The No Observed Adverse Effect Level (NOAEL) was 400 mg/kg. No evidence of carcinogenicity was seen in a two-year study with rats and mice. STOT-SE: No data available. STOT-RE: No data available.

Formaldehyde, Polymer with benzeneamine, hydrogenated CAS #: 135108-88-2	Acute Toxicity Oral Toxicity LD50: 1,200 mg/kg (Rat) Dermal Toxicity: No data is available on the product itself. Inhalation: No data available on the product itself. Serious eye damage/eye irritation: Risk of serious damage to the eyes. Chronic Toxicity Sensitization: May cause sensitization of susceptible persons by skin contact. Carcinogenicity: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Mutagenicity: No data available on the product itself. Teratogenicity: A component has been shown to cause reproductive/teratogenic effects in laboratory animals. Repeated dose: Mixed polycycloaliphatic amines was tested in rats for systemic effects in a subchronic (28-day) oral study at doses ranging from 15 to 300 mg/kg/day. Effects seen at 300 mg/kg/day included decreased survival, decreased body weight gain, increased liver, kidney,and adrenal weights and histological changes in the liver, kidney, adrenals and spleen. The No-Observed-Adverse-Effect-Level (NOAEL) was 15 mg/kg/day. Rats exposed orally to 800 mg/kg benzyl alcohol for thirteen weeks exhibited CNS depression and histopathological changes in the brain, thymus and skeletal muscles. The No Observed Adverse Effect Level (NOAEL) was 400 mg/kg. No evidence of carcinogenicity was seen in a two-year study with rats and mice. STOT-SE: No data available. STOT-RE: No data available.
Organic acid CAS #: ---	Acute Toxicity Oral Toxicity LD50: 1,200 mg/kg (Rat) Dermal Toxicity: No data is available on the product itself. Inhalation: No data available on the product itself. Serious eye damage/eye irritation: Risk of serious damage to the eyes. Chronic Toxicity Sensitization: May cause sensitization of susceptible persons by skin contact. Carcinogenicity: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Mutagenicity: No data available on the product itself. Teratogenicity: A component has been shown to cause reproductive/teratogenic effects in laboratory animals. Repeated dose: Mixed polycycloaliphatic amines was tested in rats for systemic effects in a subchronic (28-day) oral study at doses ranging from 15 to 300 mg/kg/day. Effects seen at 300 mg/kg/day included decreased survival, decreased body weight gain, increased liver, kidney,and adrenal weights and histological changes in the liver, kidney, adrenals and spleen. The No-Observed-Adverse-Effect-Level (NOAEL) was 15 mg/kg/day. Rats exposed orally to 800 mg/kg benzyl alcohol for thirteen weeks exhibited CNS depression and histopathological changes in the brain, thymus and skeletal muscles. The No Observed Adverse Effect Level (NOAEL) was 400 mg/kg. No evidence of carcinogenicity was seen in a two-year study with rats and mice. STOT-SE: No data available. STOT-RE: No data available.
Teta, reaction products with phenol/formaldehyde CAS #: 32610-77-8	Acute Toxicity Oral Toxicity LD50: 2,200 mg/kg (Rat) Dermal Toxicity LD50: > 1,000 mg/kg (Rat) Inhalation: No data available on the product itself. Skin corrosion/irritation: Moderate skin irritation. Serious eye damage/eye irritation: Risk of serious damage to eyes. Chronic Toxicity Sensitization: May cause sensitization by skin contact. Carcinogenicity: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Mutagenicity: Results from a battery of short term genotoxicity tests on this material or its components indicate mutagenic activity. STOT-SE: No data available. STOT-RE: Absorption of phenolic solutions through the skin may be very rapid and can cause damage to the kidneys, liver, pancreas and spleen, and edema of the lungs.

Triethylenetetramine CAS #: 112-24-3	Acute Toxicity Oral Toxicity LD50: 2,020 mg/kg (Rat) Skin corrosion/irritation LD50: > 2,100 mg/kg (Rat) Moderate skin irritation. Non-corrosive in an in vitro test. Inhalation: No data available on the product itself. Serious eye damage/eye irritation: Moderate eye irritation. Non-corrosive in an in vitro test. Corneal edema may give rise to a perception of "blue haze" or "fog" around lights. This effect is temporary and has no known residual effect. Product vapor can cause glaucopsia (corneal edema) when absorbed into the tissue of the eye from the atmosphere. Chronic Toxicity Repeated dose: Mixed polycycloaliphatic amines was tested in rats for systemic effects in a subchronic (28-day) oral study at doses ranging from 15 to 300 mg/kg/day. Effects seen at 300 mg/kg/day included decreased survival, decreased body weight gain, increased liver, kidney,and adrenal weights and histological changes in the liver, kidney, adrenals and spleen. The No-Observed-Adverse-Effect-Level (NOAEL) was 15 mg/kg/day. Rats exposed orally to 800 mg/kg benzyl alcohol for thirteen weeks exhibited CNS depression and histopathological changes in the brain, thymus and skeletal muscles. The No Observed Adverse Effect Level (NOAEL) was 400 mg/kg. No evidence of carcinogenicity was seen in a two-year study with rats and mice. Sensitization: Dermal sensitization to this product or component has been seen in some humans. The results of a test on guinea pigs showed this substance to be a weak skin sensitizer. Sensitization has occurred in laboratory animals after repeated exposure. Carcinogenicity: No data available on the product itself. Mutagenicity: Results from a battery of short term genotoxicity tests on this material or its components indicate mutagenic activity. In vitro tests showed mutagenic effects. Teratogenicity: A component has been shown to cause reproductive/teratogenic effects in laboratory animals.
Phenol CAS #: 108-95-2	Acute Toxicity Oral Toxicity LD50: 2,200 mg/kg (Rat) Dermal Toxicity LD50: > 1,000 mg/kg (Rat) Inhalation LC50: >0.9 mg/l, 8 h (Rat) – No deaths observed (as aerosol) Skin corrosion/irritation: Moderate skin irritation. Serious eye damage/eye irritation: Risk of serious damage to eyes. Chronic Toxicity Sensitization: May cause sensitization by skin contact. Carcinogenicity: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Mutagenicity: Results from a battery of short term genotoxicity tests on this material or its components indicate mutagenic activity. STOT-SE: No data available. STOT-RE: Absorption of phenolic solutions through the skin may be very rapid and can cause damage to the kidneys, liver, pancreas and spleen, and edema of the lungs.

The products in question have been evaluated against the Hazardous Products Regulations (WHMIS 2015) and no additional classifications, ingredient disclosure or exposure limits are required for those regulations.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:

Not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability:

No test data available.

Bioaccumulative potential:

No test data available.

Mobility in soil:

No test data available.

Other adverse effects:

Do not allow to enter soil, waterways or waste water canal.

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

Components	Test Results
Benzyl Alcohol CAS # 100-51-6	No data available on the product itself. General Information: Do not allow to enter soil, waterways or waste water canal. Toxic to aquatic life.
4,4'-methylenebis (cyclohexylamine) CAS # 1761-71-3	No data available on the product itself. General Information: Do not allow to enter soil, waterways or waste water canal.
Formaldehyde, Polymer with benzeneamine, hydrogenated CAS # 135108-88-2	No data available on the product itself. General Information: Do not allow to enter soil, waterways or waste water canal. Harmful to aquatic life with long lasting effects.
Oranic Acid CAS # ---	No data available on the product itself. General Information: Do not allow to enter soil, waterways or waste water canal.
Teta, reaction products with phenol/formaldehyde CAS # 32610-77-8	No data available on the product itself. General Information: Do not allow to enter soil, waterways or waste water canal.
Triethylenetetramine CAS # 112-24-3	No data available on the product itself. General Information: Do not allow to enter soil, waterways or waste water canal.
Phenol CAS # 108-95-2	Aquatic Toxicity Fish: No data available on the product itself. Invertebrates EC50: Daphnia Magna (water flea) – 4-7 mg/l - 48 h Algae/Aquatic plants: No data available on the product itself. Ecological Data Biodegradation: No data available on the product itself. Bioaccumulation: Low bioaccumulation potential. Mobility: No data available on the product itself. Other: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

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. Containers should be completely emptied 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: Non-regulated

Sea transport, IMDG: Non-regulated

Air transport, IATA/ICAO: Non-regulated

SECTION 15 – REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

U.S. Toxic Substances Control Act:

None present or none present in regulated quantities.

US. EPA CERCLA Hazardous Substances (40 CFR 302) Components:

None present or none present in regulated quantities.

SARA Section 311/312 Hazard Categories:

Refer to hazard classification information in Section 2.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A) Components:

None present or none present in regulated quantities.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required Components:

None present or none present in regulated quantities.

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

Under RCRA, it is the responsibility of the person who generates a solid waste, as defined in 40 CFR 261.2, to determine if that waste is a hazardous waste.

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey, Pennsylvania or Rhode Island Right to Know Substance Lists:

- Triethylenetetramine – CAS # 112-24-3
- Phenol – CAS # 108-95-2

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

- Triethylenetetramine – CAS # 112-24-3
- Phenol – CAS # 108-95-2

California Prop. 65 Components:

To the best of our knowledge, this product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, as levels which would require a warning label under the statute. For more information, go to www.P65Warnings.ca.gov

NFPA Hazard Rating:

HEALTH	FIRE	INSTABILITY	SPECIFIC
2	1	0	
0 = Normal 1 = Slight 2 = Hazardous 3 = Extreme Danger 4 = Deadly	(Flash Points) 0 = Will not burn 1 = Above 200°F 2 = Below 200°F 3 = Below 100°F 4 = Below 73°F	0 = Stable 1 = Unstable if Heated 2 = Violent Chemical Change 3 = Shock and Heat May Detonate 4 = May Detonate	ACID (Acid) ALK (Alkaline) COR (Corrosive) OXY (Oxidizer) W (Use No Water)

HMIS Hazard Rating:

HEALTH	FLAMMABILITY	REACTIVITY	PROTECTIVE EQUIPMENT
2	1	0	X
0 = Normal 1 = Slight 2 = Hazardous 3 = Extreme Danger 4 = Deadly			X = Ask your Supervisor or Safety Specialist for handling instructions

Canada regulations/legislation:
Hazardous Products Regulations (HPR): This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the Hazardous Products Regulations (HPR).

Domestic Substance List (DSL)/Non-Domestic Substance List (NDSL): All ingredients are listed on the DSL/NDSL.

International Regulations/Inventories:
No additional data available.

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
HEPA	High Efficiency Particulate Air
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
DSL	Domestic Substance List
WHMIS	Workplace Hazardous Materials Information System

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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.