

PRODUCT NAME(S): WB Urethane Gloss Resin (Part A)

SECTION 1 – IDENTIFICATION

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

Product name: WB Urethane Gloss 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

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	1B	H317	May cause an allergic skin reaction
Specific target organ toxicity, single exposure	3	H335 H336	May cause respiratory irritation May cause drowsiness or dizziness
Specific target organ toxicity, repeated exposure	2	H373	May cause damage to respiratory system, kidney and liver through prolonged or repeated exposure

Precautionary Statements:

Prevention: P260 Do not breathe mist/ vapors/ spray.
P280 Wear protective gloves/ protective clothing / eye protection/ face protection.
P264 Wash exposed area with plenty of water and soap thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P271 Use only outdoors or in a well-ventilated area.

Response: P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P362 Take off contaminated clothing and wash before reuse.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P304 + P340 + P312 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.

Storage: P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
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, %
Acrylic Polymer	Trade Secret	Trade Secret	30 – 60
Triethanolamine	102-71-6	203-049-8	0.5 – 5
Confidential Component 1	Trade Secret	Trade Secret	0.5 – 5
Dipropylene Glycol Methyl Ether (DPM)	34590-94-8	252-104-2	0.1 – 3
Confidential Component 2	Trade Secret	Trade Secret	0.1 – 3
Ethylene Glycol Monobutyl Ether	111-76-2	203-905-0	0.1 – 3

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 medical attention.
- Skin:** Immediately wash material off of the skin with plenty of soap and water. Remove contaminated clothing and shoes and wash them before reuse. Get medical advice/attention if irritation develops or persists.
- Eye:** Immediately rinse 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 corneal injury. Get medical advice/attention if eye irritation develop or persists.
- Ingestion:** Move to fresh air and keep at rest in a position comfortable for breathing. Remove dentures if any. Rinse mouth thoroughly with water and then drink 60 to 240 mL (2 to 8 oz). Get medical advice/attention if symptoms occur.

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

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water fog or fine spray, 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: 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, formaldehyde, peroxides, 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 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. 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. 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. 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: 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 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.

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: Protect from freezing.

Storage stability: Stable under normal conditions.

Storage temperature: 50 - 86°F (10 - 30°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

Appearance:	Milky white liquid
Odor:	Mild, characteristic
Odor threshold:	Not available
pH:	Not available
Melting point/ freezing point:	Not available for mixture; CC1: <-85°C (-121°F); C1: -83°C (-117°F)
Initial boiling point and boiling range:	Not available for mixture; CC1: 165-175°C (329-347°F); C1: 184-197°C (363-387°F); C2: -75°C (-103°F)
Flash point:	Not available for mixture; CC1: 63°C (145°F) - closed cup; C1: 79°C (174°F); C2: 67°C (153°F) - closed cup
Evaporation rate:	Not available
Flammability (solid, gas):	Not applicable
Upper/ lower flammability or explosive limits:	Not available
Vapor pressure:	Not available for mixture; CC1: 1.63hPa @25°C; C2: 0.55hPa @25°C; 3 hPa @81°C (178°F)

Vapor density:	Not available for mixture; C2: 4.08 (Air = 1.0)
Relative density:	Not available for mixture; CC1: 0.885; C1: 0.95; C2: 0.902 (all @25°C)
Solubility (water):	Miscible
Partition coefficient n-octanol/water:	Not available
Auto-ignition temperature:	Not available for mixture; CC1: 260°C (500°F)
Decomposition temperature:	Not available
Viscosity:	Not available

CC1-Confidential Component 1; C1: Dipropylene Glycol Methyl Ether (DPM); C2: Ethylene Glycol Monobutyl Ether

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: Product will not undergo hazardous polymerization. Corrosive effects to metal are not anticipated. Based on its structural properties the product is not classified as oxidizing. Does not form flammable gases in the presence of water.

Chemical stability: Stable under recommended storage conditions.

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

Incompatible materials: Strong oxidizing agents.

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, hydrogen cyanide, formaldehyde, peroxides, 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; however, available data are not sufficient for classification. Adverse symptoms may include abdominal pain, nausea and diarrhea.

Dermal: Not anticipated, however, adverse symptoms may include temporary irritation and redness.

Inhalation: It may give off-gas, vapor or mist that is irritating to the respiratory system, especially when heated. Adverse symptoms may include nausea, headache, difficulties with breathing.

Skin corrosion / irritation:

May cause temporary irritation. Adverse symptoms may include redness.

Serious eye damage / eye irritation:

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

Specific target organ toxicity, single exposure:

This product contain component that may cause respiratory irritation after single exposure:
Confidential Component 2, CAS #: Trade Secret.

Aspiration hazard: Not an aspiration hazard.

Chronic toxicity:

Respiratory and Skin Sensitizer:

This product contains component that is reported to be a respiratory or skin sensitizer.
Triethanolamine, CAS #: 102-71-6: skin sensitizer

Germ cell mutagenicity:

Risk to humans is not expected from exposure to this product.

Carcinogenicity:

This product does not contain component(s) known or reported to be carcinogenic by IARC, NTP, EPA, OSHA, ACGIH.

Reproductive toxicity:

Risk to humans is not expected from exposure to this product.

Specific target organ toxicity, repeated exposure:

Respiratory system (lungs), kidney, liver.

Medical conditions aggravated by overexposure:

Respiratory system (lungs), kidney, liver and skin disorders, if product is handled without adequate protection.

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

Components	Test Results
Acrylic Polymer, CAS #: Trade Secret	Acute: Not expected to cause adverse acute health effects. Chronic: Not expected to cause adverse chronic health effects. Acute toxicity estimate: > 5,000 mg/kg (Calculation method) Carcinogenicity: No carcinogenic substances as defined by IARC, NTP and/or OSHA.
Triethanolamine, CAS #: 102-71-6	<u>Acute Toxicity</u> Oral LD50 (Rat): 6,400 mg/kg mg/kg (OECD Test Guideline 401) Dermal LD50 (Rabbit): >2,000 mg/kg mg/kg (OECD Test Guideline 402) Inhalation LC50 (Rat): No data available Skin corrosion/irritation (Rabbit): Repeated exposure may cause irritation, even a burn. Serious eye damage/eye irritation (Rabbit): causes serious eye irritation. STOT, SE: No data available. Aspiration hazard: Based on physical properties, not likely to be an aspiration hazard.

	<p><u>Chronic Toxicity</u> Sensitization, skin and respiratory: Skin contact may cause an allergic skin reaction in a small proportion of individuals. Did not cause allergic skin reactions when tested in guinea pigs. Germ cell mutagenicity: Negative results In vitro tests in Bacteria and Mammals Carcinogenicity: (Rat, male, female) 103 weeks/5 days per week: NOAEL/Dermal: 250 mg/kg; Negative (OECD Test Guideline 451); Findings from a chronic skin painting study by NTP include liver tumors in mice. Mechanistic studies indicate that tumor formation is of questionable relevance to humans. Is not classified as a human carcinogen; IARC: Group 3. Reproductive toxicity: (Rat, Male/Female): Maternal toxicity: Negative; Fertility: Positive; Developmental effects: Negative (OECD Test Guideline 421) Teratogenicity: Has been toxic to the fetus in laboratory animals at doses toxic to the mother. However, the relevance of this to humans is unknown. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use. STOT, RE: kidneys and liver; Category 2 (Rat, Male/Female), 90days: sub-chronic NOAEL/Oral: >1,000 mg/kg/day (OECD Test Guideline 408) 90days: sub-chronic NOAEL/Dermal: 125 to 500 mg/Kg (OECD Test Guideline 411) 28 or 14days, sub-acute NOEC/ Inhalation, dusts and mists: 500 mg/ m³ (OECD Test Guideline 412)</p>
<p>Confidential Component 1, CAS #: Trade Secret</p>	<p><u>Acute Toxicity:</u> Oral LD50 (Rat): 3,300 mg/kg Dermal LD50 (Rat): >2,000 mg/kg Inhalation LC50: >651 ppm (>3,520 mg/m³) Skin corrosion/irritation (Rabbit): moderately irritating effect. Serious eye damage/eye irritation (Rabbit): moderately irritating effect (OECD criteria) STOT, SE: No data available. Aspiration hazard: No data available. <u>Chronic toxicity:</u> Sensitization, skin and respiratory (Guinea pig): Negative (Buehler test) Germ cell mutagenicity: in vitro: Negative in different tests (Ames mouse lymphoma, CHO Cytogenetics) Carcinogenicity: Not hazard. Reproductive toxicity: not reproductive hazard. No developmental toxicity by oral, inhalation, or dermal routes of exposure even when tested at high doses or exposure levels. STOT, RE: Oral (Rats), 13 weeks: at doses 0, 100, 350 or 1000 mg/kg-day; NOAEL: 350 mg/kg-day; LOAEL: 1,000 mg/kg-day. Only the highest dose caused increased liver weights in males and increased kidney weights in females, both without associated histopathology; (Rats), 14 days: at doses 0, 100, 200 or 400 mg/kg-day: no signs of hemolysis. The negative results from this study are significant because lower molecular weight glycol ethers in the ethylene series have been shown to cause hemolysis. Inhalation (Rat), 2weeks: minimal effects at concentrations up to 700 ppm, or 3,785 mg/m³; (Rat), 9 exposures over 11 days, 5 d/wk, 6 hr/d: at doses 0, 10, 100, 300, or 600 ppm: Increased liver weights without accompanying histopathology and slight eye irritation were found at 600 ppm (3,244 mg/m³); (Rat), 9 exposures, 5 d/wk, 6 hr/d: at doses 0, 50, 200, or 700 ppm: No hematological effects or other effects.; (Rat), 31 exposures, 5 d/wk, 7 hr/d: at 600 ppm for 7 hr/day, 5 d/wk for a total of 31 exposures. Females exhibited increased liver weights without accompanying histopathology. Collectively, these studies establish a NOAEL of > 600 ppm (3,244 mg/m³) based on the fact that liver weight increase was considered an adaptive rather than a toxic response and that eye irritation was minimal and reversible. Dermal (Rat), 13 weeks, 5 d/wk; 24 hr/d: at doses 0, 1, 0.3, or 1.0 ml/kg-day; NOAEL: 1.0 ml/kg-day (880 mg/kg-day). Other than local skin reactions, no endpoint changes were considered treatment-related; (Rabbits), 13 weeks, 5 d/wk, 7 hr/day: at doses 0, 10, 100, or 1000 mg/kg. Local skin reactions were observed at 100 and 1,000 mg/kg-day. NOAEL of 1000 mg/kg-day (1.14 ml/kg-day).</p>
<p>Dipropylene Glycol Methyl Ether (DPM), CAS #: 34590-94-8:</p>	<p><u>Acute Toxicity:</u> Oral LD50 (Rat): 5,200 mg/kg. Ingestion may irritate the digestive tract; high dosages may cause CNS depression. Dermal LD50 (Rabbit): 9,500 mg/kg Inhalation LC50 (Rat): >50 mg/L; High concentrations of vapors may be irritating to the respiratory tract. May cause CNS depression (drowsiness, loss of coordination and fatigue). Skin corrosion/irritation (Rabbit): Contact may cause slight irritation. Skin absorption of 10-20 ml/kg of DPM has caused CNS depression (in rabbits). Serious eye damage/eye irritation (Rabbit): Contact may cause mild eye irritation. STOT, SE: No data available. Aspiration hazard: No. <u>Chronic toxicity:</u> No known chronic health effects. Sensitization, skin and respiratory: Does not cause skin sensitization. Germ cell mutagenicity: Negative in different tests (Ames Test, E. coli, Unscheduled DNA Synthesis, CHO Cytogenetics) 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, OSHA and ACGIH. Reproductive toxicity: Developmental tests: no effect. STOT, RE: No known or reported target organs from repeated exposure. Aggravated Medical: May be aggravating to some asthma-type conditions.</p>
<p>Confidential Component 2, CAS #: Trade Secret</p>	<p>By analogy with similar materials: <u>Acute Toxicity:</u> Oral LD50 (Rat): 13,792 mg/kg; behavioral: convulsions or effect on seizure threshold; Respiratory system: dyspnea. Inhalation LC50 (Rat): >1.8 mg/L (25% aqueous solution) Skin corrosion/irritation (Rabbit): causes skin irritation. Serious eye damage/eye irritation (Rabbit): causes serious eye irritation. STOT, SE: May cause respiratory irritation. Aspiration hazard: No data available. <u>Chronic toxicity:</u> Sensitization, skin and respiratory: not a skin sensitizer. Germ cell mutagenicity: No data available. Carcinogenicity: It is unlikely to present a carcinogenic hazard to man. Reproductive toxicity: No data available. STOT, RE: No data available.</p>
<p>Ethylene Glycol Monobutyl Ether, CAS #: 111-76-2</p>	<p><u>Acute Toxicity:</u> Oral LD50 (Rat, male): 880 mg/kg (OECD Test Guideline 401); Category 4 per GHS: Harmful if swallowed. Dermal LD50 (Rat): 1,060 mg/kg (OECD Test Guideline 402); Category 4per GHS: Harmful in contact with skin. Intraperitoneal LD50 (Rat): 220 mg/kg Intravenous LD560 (Rat): 307 mg/kg Inhalation LC50, vapor: (Rat), 3hrs: >4.9 mg/L; (Guinea Pig), 1hr: >3.4 mg/L; Category 4 per GHS: Harmful if inhaled. Skin corrosion/irritation (Rabbit), 20hrs: Causes skin irritation. Serious eye damage/eye irritation (Rabbit), 24hrs: Causes serious eye irritation. (OECD Test Guideline 405)</p>

STOT, SE: No data available.
 Aspiration hazard: No data available.
Chronic toxicity:
 Sensitization, skin and respiratory (Guinea pig): Does not cause skin sensitization (OECD Test Guideline 406, GPMT)
 Germ cell mutagenicity: (Hamster) ovary: negative (OECD Test Guideline 474); (Mouse, male): negative
 Carcinogenicity: IARC: Group 3 (Not classifiable as to its carcinogenicity to humans); ACGIH: A3 (Confirmed animal carcinogen);
 NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP;
 OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
 Reproductive toxicity: Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.
 STOT, RE: Oral (rat): NOAEL: <69 mg/kg/day (OECD Test Guideline 408); Inhalation (rat): NOAEC: <31 ppm; Dermal (rabbit): NOAEL: >150 mg/kg/day (Skin Irritant)
 Human exposure to levels ≥200 ppm can cause narcosis, damage to the kidney, liver and blood cells.
 Swallowing results in a sour taste that turns to a burning sensation and is followed by numbness of the tongue which indicates paralysis of the sensory nerve endings.
 Central nervous system depression, Headache, narcosis
 Stomach - Irregularities - Based on Human Evidence

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: Expected to be moderately biodegradable based on components info.

Bioaccumulative potential: Not known.

Mobility in soil: Not known.

Other adverse effects: Do not allow product to reach ground water, water course or sewage system.

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

Components	Test Results
Acrylic Polymer, CAS #: Trade Secret	The components in this product are either non-hazardous or do not have any ecotoxicity data associated with them.
Triethanolamine, CAS #: 102-71-6	<u>Acute Toxicity:</u> Fish, 96hrs: LC50: 11,800 mg/L (No official guidelines) Aquatic plants (Algae), 72hrs: ErC50: 512 mg/L (DIN 38412 part 9, static, growth rate) Activated Sludge (Bacteria), 3hrs: EC50: >1,000 mg/L (OECD Test Guideline 209, Respiration Inhibition Test, Static) <u>Chronic Toxicity:</u> Aquatic invertebrates (Daphnia magna), 21days: NOEC: 16 mg/L (No official guidelines, semi-static) Aquatic plants (Algae), 72hrs: LOAEL: 26 mg/L (DIN 38412 part 9, static) <u>Ecological Data:</u> Persistence and degradability: Readily biodegradable; 100% in 5 days. Bioaccumulative potential: low; LogPow: -2.3; BCF: <3.9 Mobility in soil: Not available.
Confidential Component 1, CAS #: Trade Secret	<u>Acute Toxicity:</u> Fish (guppy), 96hrs: LC50: 560-1,000 mg/L Aquatic Invertebrates (Daphnia magna), 48hrs: EC50: >1,000 mg/L Aquatic Plants (algae), 72hrs: EC50: 42% growth inhibition at 1,000 mg/L <u>Ecological data:</u> Biodegradation: Readily biodegradable. In one test, >60% after 28 days but not within a 10day window, measured by CO2 evolution. In a second test, >90% biodegradation after 28 days within a 10day window measured by DOC removal. Atmospheric photodegradation half-life:4.6. Bioaccumulative potential: Does not significantly accumulate in organisms. This may be due to a high water solubility and rapid metabolism; Log Kow: 1.15. Mobility in soil: 8 Soil-Water or Sediment-Water Partition Coefficient (Koc): 1.3.
Dipropylene Glycol Methyl Ether (DPM), CAS #: 34590-94-8:	<u>Acute Toxicity:</u> Fish (fathead minnow), 96hrs: LC50: >10,000 mg/L Aquatic Invertebrates (Daphnia magna), 48hrs: EC50: 1,919 mg/L Aquatic Plants (algae), 72hrs: EC50: >969 mg/L <u>Ecological data:</u> Biodegradation: Readily biodegradable. >60% after 28 days within a 10-day window, measured by O2 consumption, CO2 evolution, or removal of dissolved organic carbon (DOC). Results of PBT and vPvB assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Confidential Component 2, CAS #: Trade Secret	Toxic to aquatic life with long lasting effects <u>Acute Toxicity:</u> Fish (fathead minnow), 96hrs: LC50: 19 mg/L * Aquatic Invertebrates (Daphnia magna), 48hrs: EC50: 8.3 mg/L * * By analogy with similar materials:
Ethylene Glycol Monobutyl Ether, CAS #: 111-76-2	<u>Acute Toxicity:</u> Fish (rainbow trout), 96hrs: LC50: 1,474 mg/L (OECD Test Guideline 203, static). Aquatic Invertebrates (Daphnia magna), 48hrs: EC50: 1,550 mg/L (OECD Test Guideline 202, part 1, static) Aquatic Plants (algae), 72hrs: EC50: 1,840 mg/L (OECD Test Guideline 201) <u>Ecological data:</u> Persistence and degradability: Readily biodegradable. 90.4% in 28 days (aerobic) (OECD Test Guideline 301B). The 10 day time window criterion is not fulfilled. Ratio BOD/ThBOD 88 %

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: Non-regulated
Sea transport, IMDG: Non-regulated
Air transport, IATA/ICAO: Non-regulated

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):

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

- Ethylene Glycol Monobutyl Ether, CAS #: 111-76-2(N230-certain glycol ethers): in product: 0.1 – 3%; De Minimis: 1%

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

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

- Dipropylene Glycol Methyl Ether (DPM), CAS #: 34590-94-8: 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: The following components are listed:

Substance	Regulatory Limits			Recommended Limits	
	OSHA PEL		Cal/OSHA PEL (as of 4/26/13)	NIOSH REL (as of 4/26/13)	ACGIH® 2015 TLV®
	ppm	mg/m ³	8-hour TWA, mg/m ³	Up to 10-hour TWA, mg/m ³	8-hour TWA, mg/m ³
Dipropylene Glycol Methyl Ether (DPM), CAS #: 34590-94-8	100	600	100 ppm (ST) 150 ppm	100 ppm (ST) 150 ppm	100 ppm (ST) 150 ppm

ppm-parts per million; C-Ceiling; STEL-Short term exposure level

Available Occupational Exposure Limits for Components not regulated by OSHA:

- Triethanolamine, CAS #: 102-71-6:
US. ACGIH TLV: TWA: 5 mg/m³

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: 1 Special: 0

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

State Regulations:

California Prop. 65 Components:

This product does not contain components 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 D2B: Material causing other toxic effects (Toxic).

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: February 5, 2016 – Preparation of SDS in accordance to the GHS requirements

Date of the previous revision: September 29, 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.