PRODUCT NAME(S): Sealcoat 1000

SECTION 1 – IDENTIFICATION

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

Product name: **Sealcoat 1000**

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
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
Reproductive Toxicity	1B	H360	May damage fertility or the unborn child
Specific target organ toxicity, repeated exposure	2	H373	May cause damage to kidney, liver and central nervous system through prolonged or repeated exposure

Precautionary Statements:

Prevention:	P201	Obtain special instruction before use.
	P202	Do not handle until all safety precautions have been read and understood.
	P281	Use personal protective equipment as required.
	P260	Do not breathe mist/ vapors/ spray.
	P264	Wash exposed area with plenty of water and soap thoroughly after handling.
Response:	P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
	P362	Take off contaminated clothing and wash before reuse.
	P332 + P313	If skin irritation 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.
	P308 + P313	IF exposed or concerned: Get medical advice/attention.
	P314	Get medical advice/attention if you feel unwell.
Storage:	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	15 – 30
Diethylene Glycol Monobutyl Ether	112-34-5	203-961-6	1 – 5
Ethylene Glycol Monobutyl Ether	111-76-2	203-905-0	1 – 5
Dibutyl Phthalate	84-74-2	201-557-4	0.1 – 1
1-Methyl-2-pyrrolidone (NMP)	872-50-4	212-828-1	0.1 – 1

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.

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:	Slightly ammonia
Odor threshold:	Not available
pH:	Not available
Melting point/ freezing point:	Not available for mixture; C1: -68°C (-90°F); C2:-75°C (-103°F)
Initial boiling point and boiling range:	Not available for mixture; PA: 100°C (212°F); C1: 231°C (448°F); C2: 169-173°C (336-343°F)
Flash point:	Not available for mixture; C1: 99°C (210°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 for mixture; C1: 6.2 %(V) / 0.9% (V); C2: 12.7 %(V) / 1.1 %(V)
Vapor pressure:	Not available for mixture; C1: 40 hPa (30 mmHg) at 130°C (266°F) C2: 0.55hPa @25°C and 13 hPa @81°C (178°F)
Vapor density:	Not available for mixture; C1: 5.6; C2: 4.08 (Air = 1.0)

Relative density:	Not available for mixture; PA: 1.03; C1: 0.967; C2: 0.902 (all @25°C)
Solubility (water):	Miscible
Partition coefficient n-octanol/water:	Not available
Auto-ignition temperature:	Not available for mixture; C1: 210°C (410°F); C2: 230°C (446°F) (all at 1,013.25 hPa (760.00 mmHg))
Decomposition temperature:	Not available
Viscosity:	Not available

* PA-Acrylic Polymer; C1: Diethylene Glycol Monobutyl Ether; 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. Adverse symptoms may include abdominal pain, nausea and diarrhea.
Dermal: May be harmful in contact with skin. 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. A more severe response may be expected if skin is abraded (scratched or cut).
Serious eye damage / eye irritation:
May cause serious eye irritation. Adverse symptoms may include tearing and redness.
Specific target organ toxicity, single exposure:
Not expected.
Aspiration hazard: Not an aspiration hazard.

Chronic toxicity:
Respiratory and Skin Sensitizer:
This product does not contain components known or reported to be a skin or respiratory sensitizer.
Germ cell mutagenicity:
This product contains components which cause concern due to possible mutagenic effects, but for which the available information is not adequate for making a satisfactory assessment.
Carcinogenicity:
This product does not contain component(s) known or reported to be carcinogenic by IARC, NTP, EPA, OSHA, ACGIH.
Reproductive toxicity:
This product contains component that is suspected of damaging fertility or the unborn child:
- 1-Methyl-2-pyrrolidone (NMP), CAS #: 872-50-4
- Dibutyl phthalate, CAS #: 84-74-2

Specific target organ toxicity, repeated exposure:
Kidney, liver and central nervous system.
Medical conditions aggravated by overexposure:
Kidney, liver and central nervous system 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.
Diethylene Glycol Monobutyl Ether, CAS #: 112-34-5	Acute Toxicity Oral LD50 (Rat, male): 7,291 mg/kg (OECD Test Guideline 401) Dermal (Rabbit, male): 2,764 mg/kg (OECD Test Guideline 402) Inhalation: >29 ppm Skin corrosion/irritation (Rabbit), 1hr: mild skin irritation (OECD Test Guideline 404) Eye irritation (Rabbit): Irritating to eyes (OECD Guideline 405) STOT, SE: No data available Aspiration Hazard: No data available

	Chronic toxicity: Respiratory or skin sensitisation (Guinea pig): Does not cause skin sensitisation (OECD Test Guideline 406, GPMT) Germ cell mutagenicity: Ames test (S. typhimurium): negative (OECD Test Guideline 477); (fruit fly, male and female): 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, OSHA, ACGIH. Reproductive toxicity: Dermal (Rat, male and female): No adverse effect has been observed in chronic toxicity tests. Developmental Toxicity Dermal (Rabbit): No adverse effect has been observed in chronic toxicity tests. Teratogenicity: The data available for an assessment of the effect of the substance on developmental toxicity are not sufficient for a proper evaluation. STOT, RE: (Rat), 90days: Oral: NOAEL: 250 mg/kg; Dermal: NOAEL: >2,000 mg/kg; Inhalation: NOAEL: >0.094 mg/kg; To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Stomach - Irregularities - Based on Human Evidence
Ethylene Glycol Monobutyl Ether, CAS #: 111-76-2	Acute Toxicity: 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) 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
Dibutyl Phthalate, CAS #: 84-74-2	May cause eye, skin, and respiratory tract irritation. Acute Toxicity: Oral LD50 (Rat), 4hrs: 7,499 mg/kg; (mouse): 3,474 mg/kg; (Guinea pig): 10,000 mg/kg (general depressed activity, withdrawal, weight loss or decreased weight gain); (Human) LPTC: 140 mg/kg (distorted perceptions, nausea, vomiting, kidney, ureter and bladder disorders). Dermal LD50 (Rabbit): >20 mL/kg. Inhalation LC50 (Rat): 4,250 mg/m^3; (mouse), 2hrs: 25,000 mg/m^3 (Convulsions or effect on seizure threshold, asthma) May be harmful if inhaled. Inhalation of a mist of this material may cause respiratory tract irritation. May cause central nervous system effects. Skin corrosion/irritation (Rabbit): May cause skin irritation, redness, stinging and burning sensation. May be harmful if absorbed through the skin. Serious eye damage/eye irritation (Rabbit): May cause eye irritation. Splash contact can cause immediate, severe stinging pain, and profuse tearing. May also cause conjunctivitis and edema of the eyelids. STOT, SE: no data available. Aspiration hazard: No. Chronic toxicity: Sensitization, skin and respiratory: Germ cell mutagenicity: in some conducted tests affected genetic material, but available data are not sufficient for classification. Carcinogenicity: Not listed by ACGIH, IARC, NTP, or CA Prop 65. Reproductive toxicity: multiple tests with various routes confirm reproductive effects. May cause harm to the unborn child. Possible risk of impaired fertility. Reduced testes weights and histologic evidence of testicular injury were found in mice and guinea pigs but not in hamsters or rats fed 2000 mg DBP/kg/day for 10 days. Male and female mice fed 1300 mg DBP/kg/day in the diet for 4 months before and after breeding resulted in a reduction in the number of litters per mating pair, fewer live pups per litter, and a lower proportion of pups born alive. No effects on reproduction were observed at 390 mg/kg/day. Teratogenicity: Boys of moms highly exposed to phthalates show stunted genitals. The higher the levels of phthalates in the mothers during the final months of pregnancy, the less masculine their boys were when examined by pediatricians. STOT, RE: Reproductive system, kidneys, liver, central nervous system (CNS), eyes, respiratory system, gastrointestinal tract.
1-Methyl-2-pyrrolidone (NMP), CAS #: 872-50-4	Acute Toxicity Oral LD50 (Rat): 4,150 mg/kg (OECD Test Guideline 401) Dermal LD50 (Rat): >5,000 mg/kg (OECD Test Guideline 402) Inhalation LC50 (Rat), 4hrs: >5.1 mg/L (OECD Test Guideline 403) Skin corrosion/irritation (Rabbit): Irritating to skin (OECD Test Guideline 404) Serious eye damage/eye irritation (Rabbit): Irritating to eyes (OECD Test Guideline 405) STOT, SE: may cause respiratory irritation; Category 3 Aspiration hazard: No data available Chronic toxicity Sensitization, skin and respiratory (Mouse): Not skin sensitizer (Lymph node assay) (OECD Test Guideline 429) (based on similar substances) Germ cell mutagenicity: negative In vitro: (Salmonella typhimurium): with and without metabolic activation (Ames test) (OECD Test Guideline 471): negative In vivo: Oral (Mouse): at 950, 1900 and 3800 mg/kg bw (micronucleus test) (OECD Test Guideline 474): negative Mammalian cell cultures: negative Carcinogenicity: Oral (mouse), 18months: at doses 0, 600, 1200, 7200 ppm; NOAEL: 600 ppm; limited evidence of carcinogenic effects; symptoms: increased incidence of hepatocellular carcinomas (OECD Test Guideline 451); Not classifiable as human carcinogen Reproductive toxicity: Presumed human reproductive toxicant. Teratogenic effects, developmental toxicity occurred at maternal toxicity dose levels. Oral (Rat): Two generation study at doses 0, 50, 160, 500/350 mg/kg bw; General Toxicity, Parent: NOEAL: 350 mg/kg bw; General Toxicity, F1: NOEAL: 160 mg/kg bw, reduced embryonic survival (OECD Test Guideline 416): detected embryonic effects and adverse effects on offspring / Effects on fetal development: Oral (Rat), 10days: at doses 0, 125, 250, 500 and 750 mg/kg bw; Maternal toxicity: NOAEL: 125 mg/kg bw; Teratogenicity: NOAEL: 250 mg/kg bw; Embryo-fetal toxicity: 125 mg/kg bw Symptoms: skeletal and visceral malformations, reduced number of viable fetuses (OECD Test Guideline 414)

	STOT, RE: Oral (Rat), 90days/daily: doses: 3,000, 7,500 and 18,000 ppm; NOAEL: 3,000; LOAEL: 7,500 ppm (OECD Test Guideline 408) Prolonged or repeated exposure can cause vomiting, diarrhea, abdominal pain. (Rat), 10days at 1mg/L aerosol showed depletion of hematopoietic cells in the bone marrow and atrophy of the lymphoid tissues.

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.
Diethylene Glycol Monobutyl Ether, CAS #: 112-34-5	Acute toxicity Fish: LC50 (Bluegill), 96hrs: 1,300 mg/L (OECD Test Guideline 203) Aquatic invertebrates: EC50 (Daphnia magna), 48hrs: >100 mg/L (Directive 67/548/EEC, Annex V, C.2.) Aquatic plants: EC50 (Algae), 96hrs: >100 mg/L; (OECD Test Guideline 201) Microorganisms: LC50 (bacteria), 16hrs: 1,170 mg/L Ecological Data Persistence and degradability: Readily biodegradable; 85% in 28days; BOD-5: 250 mg/g; COD: 2,080 mg/g (OECD Test Guideline 301B, aerobic) Bioaccumulative potential: No data available. Mobility in soil: No data available. Results of PBT and vPvB assessment: Not fulfilling criteria.
Ethylene Glycol Monobutyl Ether, CAS #: 111-76-2	Acute Toxicity: 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) Ecological data: 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 %
Dibutyl Phthalate, CAS #: 84-74-2	Acute Toxicity: Marine pollutant. Fish (fathead minnow), 96hrs: LC50: 1.3 mg/L (OECD Test Guideline 203, static). Fish (Bluegill/Sunfish), 96hrs: LC50: 1.2 mg/L (OECD Test Guideline 203, static). Ecological data: Biodegradation: Expected to biodegrade. Estimated half-lives for a model river and model lake are 14 and 125 days. Atmospheric: Expected to exist in both the vapor and particulate phases in the ambient atmosphere. Half-life 42 hours. Bioaccumulative potential: slightly bioconcentrate. Mobility in soil: Expected to have low mobility in soil. Volatilization from dry soil surfaces is not expected. Expected to adsorb to suspended solids and sediment in water. Expected to volatilize from water surfaces.
1-Methyl-2-pyrrolidone (NMP), CAS #: 872-50-4	Acute toxicity Fish (rainbow trout), 96hrs: LC50: >100 mg/L (static test) Aquatic invertebrates (Daphnia magna), 24hrs: EC50: >100 mg/L (static test) Aquatic plants (green algae), 72hrs: EC50: >100 mg/L; growth rate (static test) Microorganisms (bacteria): LC50: 9,000 mg/L Ecological Data Persistance and Biodegradability (activated sludge), 28 days: 73% - Readily biodegradable (OECD Test Guideline 301C) Bioaccumulation: partition coefficient n-octanol/water: log Pow: -0.38 Mobility in soil: No data available Results of PBT and vPvB assessment: No data available

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 components are present above De Minimis level and therefore require reporting:

- Diethylene Glycol Monobutyl Ether, CAS #: 112-34-5 (N230-certain glycol ethers): in product: 1-5%; De Minimis: 1%
- Ethylene Glycol Monobutyl Ether, CAS #: 111-76-2 (N230-certain glycol ethers): in product: 1-5%; De Minimis: 1%

The following components are present bellow De Minimis level and therefore do not require reporting:

- Dibutyl Phthalate, CAS #: 84-74-2: in product: <1%; De Minimis: 1%
- 1-Methyl-2-pyrrolidone (NMP), CAS #: 872-50-4: in product: 0.5 %; 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:

- Diethylene Glycol Monobutyl Ether, CAS #: 112-34-5 (N230-certain glycol ethers): RQ: not assigned.
- Dibutyl Phthalate, CAS #: 84-74-2: RQ: 10 lbs

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
Dibutyl Phthalate, CAS #: 84-74-2	-	5	5	5	5

ppm-parts per million;

NIOSH IDLH: Dibutyl phthalate, CAS #: 84-74-24,000 mg/m^3

Occupational Exposure Limits:

- 1-Methyl-2-pyrrolidone (NMP), CAS #: 872-50-4:
  USA WEEL, TWA: 250 ppm
  USA WEEL, TWA: 10 ppm; ACGIH BEI: 100 mg/L
- Diethylene Glycol Monobutyl Ether, CAS #: 112-34-5:
  ACGIH TLV, TWA: 10 ppm **(**Remarks: Liver, Kidney and Hematologic effects)

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.
- Priority Pollutant List:The following components is listed:
  - Dibutyl Phthalate, CAS #: 84-74-2

RCRA Code: Dibutyl phthalate, CAS #: 84-74-2: U069

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

State Regulations:

California Prop. 65 Components:

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

1-Methyl-2-pyrrolidone (NMP), CAS #: 872-50-4; Date listed: June 15, 2001

- developmental

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 11, 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.