PRODUCT NAME(S): Elastomeric Basecoat

SECTION 1 – IDENTIFICATION

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

Product name: **Elastomeric Basecoat**

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

Classification of the substance or mixture:

Hazard Class	Category	Hazard Statement Codes	Hazard Statements
Germ Cell Mutagenicity	1B	H340	May cause genetic defects
Carcinogenicity	2	H351	Suspected of causing cancer
Reproductive Toxicity	1B	H360	May damage fertility or the unborn child
Specific target organ toxicity, repeated exposure	1	H372	Causes damage to lungs/respiratory system, through prolonged or repeated exposure by inhalation Causes damage to kidney and liver through prolonged or repeated exposure
Aquatic Hazard, Acute	3	H402	Harmful to aquatic life
Aquatic Hazard, Chronic	3	H412	Harmful to aquatic life with long lasting effects

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.
	P270	Do not eat, drink, and smoke when using this product.
	P264	Wash exposed area with plenty of water and soap thoroughly after handling.
	P273	Avoid release to the environment.
Response:	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: See Section 11.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS #	EC #	Concentration, %
Confidential Component 1	Trade secret	Trade secret	50 – 75
Calcium Carbonate (Limestone)	1317-65-3	215-279-6	10 – 30
Titanium Dioxide	13463-67-7	236-675-5	1 – 3
Carbon Black	1333-86-4	215-609-9	0.1 – 0.5
Carbendazim (2-Benzimidazolecarbamic acid, methyl ester)	10605-21-7	234-232-0	0.1 – 0.5

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 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 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, oxides of metals present in mixture, amines, hydrogen cyanide, formaldehyde, lower molecular weight organic molecules.

Special Protective Equipment and Precautions for fire-fighters: Wear NIOSH or OSHA approved self-contained breathing apparatus in positive pressure mode with full face piece and full protective gear. Isolate the scene by removing all persons from the incident area. 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. Water polluting material. May be harmful to the environment if released in large quantities. See Section 12 for more details.

Methods and materials for containment and cleaning up: Remove mechanically; cover the remainder with non-combustible absorbent material (e.g. sand, earth, vermiculite or diatomaceous earth). Following absorption, transfer into properly labeled chemical waste containers. If necessary, repeat application of absorbent material until all liquid has been removed from the surface. Remove residual with warm, soapy water. 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.

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 recommended. Examples of eye protection include safety glasses and goggles. 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. Appropriate footwear should be also selected based on the task being performed and the risks involved.

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 with particulate prefilter. 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:	Gray liquid
Odor:	Mild
Odor threshold:	Not available
pH:	13.2 @ 25°C (77°F)
Melting point/ freezing point:	Not available
Initial boiling point and boiling range:	100°C (212°F)
Flash point:	> 100°C (> 212°F)
Evaporation rate:	< 1 (Water = 1)
Flammability (solid, gas):	Not available
Upper/ lower flammability or explosive limits:	Not available
Vapor pressure:	17 mmHg (torr) @ 20°C(68°F)
Vapor density:	Not available
Relative density:	Not available
Solubility (water):	Not available
Partition coefficient n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	> 200°C(> 392°F)
Viscosity:	90-95 KU

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: Product will not undergo hazardous polymerization. Corrosive effects to metal are 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 mist formation.
Incompatible materials: Strong oxidizing agents.

- Calcium Carbonate (Limestone) ignites on contact with fluorine and is incompatible with acids, alum, ammonium salts, and magnesium.

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 carbon and nitrogen oxides, oxides of metals present in mixture, amines, hydrogen cyanide, formaldehyde, lower molecular weight organic molecules.

SECTION 11 – TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Skin and Eye Contact, Inhalation and Ingestion.
Symptoms of exposure:
Acute toxicity:
Oral: Not classified. However, adverse symptoms may include abdominal pain, nausea and diarrhea.
Dermal: Not classified.
Inhalation: Not classified.
Skin corrosion / irritation: May cause temporary skin irritation.
Serious eye damage / eye irritation: May cause mechanical 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 component which may cause genetic defects**.**

- Carbendazim, CAS #: 10605-21-7: Category 1

Carcinogenicity:
This product contains components/impurities reported to be possibly carcinogenic to humans by IARC.

- Titanium Dioxide, CAS #: 13463-67-7: IARC: Group 2B (Possibly Carcinogenic to Humans)
- Carbon Black, CAS #: 1333-86-4: IARC: Group 2B (Possibly Carcinogenic to Humans)
- Crystalline Silica, CAS #: 14808-60-7: IARC: Group 1 (Carcinogenic to humans)

Negative effects of components classified as potential carcinogen are minimized since they are dispersed in a liquid as opposed to an inhalable fine powder form. However, precautions should be taken to avoid breathing mists created by heating, mixing or spraying and dust from cutting or grinding of cured product containing these components.
Note: Crystalline Silica is only present as impurity at quantities not relevant for GHS Classification.

Reproductive toxicity:
This product contains component that may damage fertility or the unborn child:

- Carbendazim, CAS #: 10605-21-7: Category 1

Specific target organ toxicity, repeated exposure:
Lungs/respiratory system, kidney, liver.

Medical conditions aggravated by overexposure:
Lungs/respiratory system, kidney, liver disorders, if product is handled without adequate protection.

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

Components	Test Results
Calcium Carbonate (Limestone), CAS #: 1317-65-3	Acute toxicity Oral LD50 (Rat): >5,000 mg/kg Skin corrosion/irritation: May cause skin irritation. Serious eye damage/eye irritation: May cause eye irritation. Inhalation: irritation to mucous membrane and respiratory tract; symptoms: cough, sneezing, discharge. Chronic Toxicity STOT, RE: Inhalation (Rat): causes damage to lungs, liver, kidney, ureter, and bladder.
Titanium Dioxide, CAS #: 13463-67-7	Acute toxicity Oral LD50 (Rat): >5,000 mg/kg; a very insoluble compound. The studies in several species, including man, show neither significant absorption nor tissue storage following ingestion of titanium dioxide. Inhalation LC50 (Rat): >6.82 mg/L Skin corrosion/irritation (Rabbit): Slight or no skin irritation. Not dermally absorbed by humans. Serious eye damage/eye irritation (Rabbit): Slight or no eye irritation. Chronic Toxicity Sensitization (Mouse): Not sensitizing on laboratory animals. Germ cell mutagenicity: Non genotoxic. Carcinogenicity: IARC: Group 2B: Possibly carcinogenic to humans; No component of this product present at levels greater than or equal to 0.1% is

	identified as a carcinogen or potential carcinogen by NTP, ACGIH and OSHA. Titanium dioxide is a frequently used compound in lung clearance studies, where a biologically inert substance is required, however inhalation of high concentrations of fine or ultrafine titanium dioxide particles has been shown to result in pulmonary inflammation, fibrosis, and lung tumors in rats. The same inhalation effects were not observed in mice and hamsters and may be a rat-specific threshold phenomenon, dependent upon lung overloading at high exposure concentrations and possibly of little relevance to humans. Epidemiological data suggest that there is no carcinogenic effect associated with workplace exposure to titanium dioxide dust. STOT, RE: Inhalation: Lung fibrosis; potential occupational carcinogen
Carbon Black, CAS #: 1333-86-4	Acute Toxicity Oral LD50 (Rat): >8,000 mg/kg; Carbon Black is inert, insoluble and is not expected to present an ingestion hazard Skin corrosion/irritation (Rabbit): non- irritating, index score 0.6/8 (4 = severe edema) Eye irritation (Rabbit): non-irritating, Draize score 10-17/110 (100 maximally irritating) Chronic toxicity: Germ cell mutagenicity: In Vitro: not suitable to be tested in bacterial (Ames test) and other in-vitro systems because of its insolubility. When tested, however, results for carbon black showed no mutagenic effects. Organic solvent extracts of carbon black can, however, contain traces of polycyclic aromatic hydrocarbons (PAHs). A study to examine the bioavailability of these PAHs showed that PAHs are very tightly bound to carbon black and not bioavailable. / In Vivo - In an experimental investigation, mutational changes in the hprt gene were reported in alveolar epithelial cells in the rat following inhalation exposure to carbon black. This observation is believed to be rat specific and a consequence of "lung overload" which led to chronic inflammation and release of oxygen species. This is thus considered to be a secondary genotoxic effect and thus carbon black itself would not be considered to be mutagenic. Carcinogenicity: IARC: Group 2B: Tumor development in rats caused by lung overload. No epidemiological evidence for lung tumors in humans. Lung tumors in rats are the result of exposure under "lung overload" conditions. The development of lung tumors in rats is specific to this species. Mouse and hamster do not develop lung tumors under similar test conditions. The European CLP guidance on classification and labelling states, that „lung overload" in animals is listed under mechanism not relevant to humans and that no classification is necessary if the mechanism is not relevant to humans. ACGIH: Group A4 - Not classifiable as a human carcinogen. NIOSH: 1978 criteria document on carbon black recommends that only carbon blacks with PAH contaminant levels greater than 0.1% require the measurement of PAHs in air. As some PAHs are possible human carcinogens, NIOSH recommends an exposure limit of 0.1 mg/m³ for PAHs in air, measured as the cyclohexane-extractable fraction. Not listed as a human carcinogen by NTP and OSHA. Inhalation (Rat/Mouse), 2 years, Target organ: lungs; Effect: inflammation, fibrosis, tumors; Oral (Rat), 2 years: no tumors; Oral (Mouse), 2 years: no tumors; Dermal (Mouse), 1.5 years: no skin tumors; Inhalation (Mouse/hamster), 1-2 years Target organ: lungs: no tumors; Inhalation (Rat), 2 years Target organ: lungs: inflammation, fibrosis, tumors. Reproductive toxicity: No experimental studies are available. However, based on toxicokinetic data, carbon black is deposited in the lungs and based on its specific physicochemical properties (insolubility, low absorption potential), it is not likely to distribute in the body to reach reproductive organs, embryo and/or fetus under in vivo conditions. Therefore, no adverse effects to fertility/reproduction or to fetal development are expected. STOT, RE: Inhalation (Rat), 90 days, Target organ: lungs, NOAEL = 1.1 mg/m³ (respirable)-Effect: inflammation, hyperplasia, fibrosis; Prolonged or repeated inhalation of dust may cause pulmonary fibrosis or emphysema. Inhalation studies with the rat showed lung effects. These effects are believed to be the effects of "lung overload" and specific to the species.
Carbendazim, CAS #: 10605-21-7	Acute Toxicity: Oral LD50 (Rat): 6,400 mg/kg Dermal LD50 (Rabbit): 8,500 mg/kg Inhalation LC50: No data available. Skin corrosion/irritation (Rabbit): No data available. Serious eye damage/eye irritation (Rabbit): No data available. STOT, SE: No data available. Aspiration hazard: No data available. Chronic toxicity: Sensitization, skin and respiratory: No data available. Germ cell mutagenicity: May alter genetic material. In vivo tests showed mutagenic effects. Confirmed through numerous animal tests. Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, ACGIH and OSHA. Reproductive toxicity: May cause congenital malformation in the fetus. Presumed human reproductive toxicant. May cause reproductive disorders. Confirmed through numerous animal tests. STOT, RE: liver, blood, endocrine glands, lungs, reproductive system.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: Classified as environmentally hazardous. Large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability: Not readily biodegradable by OECD criteria.
Bioaccumulative potential: Not known.

Mobility in soil: Not known.
Other adverse effects: Not known.

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

Components	Test Results
Calcium Carbonate (Limestone), CAS #: 1317-65-3	Acute toxicity Fish LC50 (Rainbow Trout), 96hrs: >10,000 mg/L Aquatic invertebrates EC50 (Daphnia magna), 48hrs: >1,000 mg/L Aquatic plants EC50 (Algae), 72hrs: >200 mg/L In solid state, this mineral is a major part of the rocks of earth's surface and is not biodegradable. Negative effect on environment should be therefore excluded. It is dissolved in a natural state and indispensable part of natural waters. Concentrated suspensions of minerals in natural waters may have an unfavorable effect on water organisms.
Titanium Dioxide, CAS #: 13463-67-7	Aquatic toxicity: Fish LC0 (orfe, freshwater fish), 48h: >1,000 mg/L. Ecological Data: Persistence and degradability: Methods for the determination of biodegradability are not applicable to inorganic substances. Bioaccumulative potential: The product is practically insoluble in water and not biodegradable. Mobility in soil: No data available. PBT and vPvB assessment is not required for inorganic substances. Titanium dioxide is a stable compound that is insoluble in water and therefore would not be expected to be present in drinking water. Based on the

	lack of absorption as well as no identified toxicological effects of concern in animal testing, there are also no risk concerns for non-target terrestrial organisms resulting from the use of titanium dioxide as an inert ingredient.
Carbon Black, CAS #: 1333-86-4	Acute toxicity Fish: LC50 (Zebra fish), 96hrs (OECD Test Guideline 203): >1,000 mg/L Aquatic invertebrates: EC50 (Daphnia magna), 24hrs (OECD Test Guideline 202): >5,600 mg/L Aquatic plants: EC50 (Algae), 72hrs (OECD Test Guideline 201): >10,000mg/L; NOEC 50: >10,000 mg/L Ecological Data Activated sludge, EC0, 3hrs (TTC test, DEV L3): 800 mg/L Persistence and degradability: Effects are not expected due to its stability and insolubility in water or organic solvents. Carbon black is inert elemental carbon and cannot be further biodegraded by microorganisms, hydrolysis, photo-degradation in air or in surface water. Bioaccumulative potential: No significant accumulation in organisms is expected. Not expected to occur in air or water in relevant amounts due to stability, insolubility and low vapor pressure. The deposition in soil or sediments is the most possible fate in the environment.
Carbendazim, CAS #: 10605-21-7	Acute Toxicity: Very toxic to aquatic life. Category 1. Fish (rainbow trout), 96hrs: LC50: 0.3 mg/L Aquatic Invertebrates (Daphnia magna), 48hrs: EC50: 0.01-0.04 mg/L Chronic toxicity: Very toxic to aquatic life with long lasting effects. Category 1. Ecological data: Persistence and degradability: No data available. Bioaccumulative potential: (Channel catfish), 48 hrs: 45 µg/L; Bioconcentration factor (BCF): 17 Mobility in soil: 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. 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. Regulations:
OSHA HCS: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200.
TSCA Regulations:
All components of this product are listed or are exempt from TSCA Inventory requirements under 40 CFR 720.30.
EPCRA Section 302 (40 CFR Part 355) (Emergency Response Planning, Extremely Hazardous Substance):
No components are subject to the reporting.
EPCRA Section 304 (40 CFR Part 355) (Emergency Release Notification Requirements):
No components are subject to the reporting.
EPCRA Sections 311 & 312 (Hazardous Chemical Inventory Reporting, Hazard Categories):
Acute Health Hazard, Chronic Health Hazard
EPCRA Section 313 (40 CFR Part 372) (Toxic Chemical Release Inventory Reporting):
No components or impurities of this product are present above De Minimis level and therefore do not require reporting.
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:
- Carbendazim, CAS #: 10605-21-7: RQ: 10lbs

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	NIOSH REL	ACGIH® 2015 TLV®
		mppcf	mg/m³	8hrs TWA, mg/m³	Up to 10hrs TWA, mg/m³	8hrs TWA, mg/m³
Calcium Carbonate (Limestone), CAS #: 1317-65-3	Total dust	-	15	10 (as PNOR)	10	See TLV® book Appendix G
	Respirable fraction	-	5	5 (as PNOR)	5	
Titanium Dioxide, CAS #: 13463-67-7	Total dust	-	15	10 (as PNOR)	2.4 mg/m³ (fine) 0.3 mg/m³ (ultrafine), Ca See Appendix A & C	10
Carbon Black, CAS #: 1333-86-4		-	3.5	3.5	3.5 mg/m³ (without PAHs); when PAHs are present, NIOSH considers carbon black to be a potential occupational carcinogen.	3 mg/m³ (IHL)
Hydrated Aluminum Silicate (Kaolin), CAS #: 1332-58-7	Total dust	-	15	-	10	-
	Respirable fraction	-	5	2 *	5	2 *

alpha-Alumina, CAS #: 1344-28-1	Total dust		15	10 (as PNOR)	See Appendix D	See *TLV*® for Aluminum, metal and insoluble compounds
	Respirable fraction		5	5 (as PNOR)		
Crystalline Silica (Quartz), CAS #: 14808-60-7	Total dust	-	30 : (%SiO_2+2)	0.3	-	0.025 (for α-quartz & cristobalite
	Respirable fraction	250 : (%SiO_2+5)	10 : (%SiO_2+2)	0.1	0.05; Ca See Appendix A	

*- no asbestos and <1% Crystalline Silica; (C)=Ceiling; Ca – Potential occupational carcinogens; mppcf – millions of particles per cubic foot; Appendix A, C and D refers to Appendixes of HAP, Section 112(b) of Clean Air Act

NIOSH IDLH: Titanium dioxide, CAS #: 13463-67-7: 5000 mg/m^3, Ca
Carbon Black, CAS #: 1333-86-4 in the presence of PAHs: 1,750 mg/m^3 / TWA: 0.1 mg PAH s/m^3
Crystalline Silica (Quartz), CAS #: 14808-60-7: Respirable fraction: 50 mg/m^3

Clean Water Act:

- Section 307(a)(1) (Toxic pollutants): No components are listed.
- Section 311(b)(2): Table 116.4A (Hazardous chemicals) / Table 117.3 (RQ): No components are listed.

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

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.

- Titanium dioxide (airborne, unbound particles of respirable size), CAS #: 13463-67-7
  - causes cancer; Date listed: September 2, 2011
- Carbon Black (airborne, unbound particles of respirable size), CAS #: 1333-86-4
  - causes cancer; Date listed: February 21, 2003
- Crystalline Silica (airborne, unbound particles of respirable size), CAS #: 14808-60-7
  - causes cancer; Date listed: October 1, 1988
    California Inhalation Reference Exposure Level (REL): California established a chronic REL of 3 µg for silica (crystalline, respirable). A chronic REL is an airborne level of a substance at or below which no adverse health effects are anticipated in individuals indefinitely exposed to the substance at that level.

Chemicals listed as Hazardous Air Pollutants (HAPs) and California Proposition 65 Carcinogens / Reproductive Toxins are not listed in Section 3 since they are only present as impurities at quantities not relevant for GHS Classification. Regardless, precautions should be taken to avoid breathing mist.

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

International Regulations/Inventories:
Canada: 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
WHMIS Label Information:

CARBON BLACK: May cause discomfort to the respiratory tract, skin and eyes. The International Agency for Research on Cancer has classified carbon black as possibly carcinogenic to humans based on laboratory animal inhalation studies.
Avoid breathing dust and prolonged contact with skin and eyes. Use only with adequate ventilation. Wear suitable protective clothing, gloves, and eye protection. In case of contact: Wash skin thoroughly with soap and water. Flush eyes with plenty of water. See Material Safety Data Sheet for important additional 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
COD / BOD	Chemical Oxygen Demand / Biological Oxygen Demand
PACs / PAHs	Polycyclic Aromatic Compounds / Polycyclic Aromatic Hydrocarbon Content
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

EHS	Extremely Hazardous Substances
DSL	Domestic Substance List
WHMIS	Workplace Hazardous Materials Information System

Latest revision date: June 29, 2016 – Preparation of SDS in accordance to the GHS requirements
Date of the previous revision: April 11, 2012

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.