PRODUCT NAME: Rhino Extreme™ 21-55 Iso

SECTION 1 - MANUFACTURER IDENTIFICATION

MANUFACTURER’S NAME: Rhino Linings Corporation
ADDRESS: 9151 Rehco Road, San Diego, CA, 92121
INFORMATION PHONE: 858-450-0441
EMERGENCY CONTACT: (CHEMTREC): 800-424-9300
DATE: December 8, 2008
SUPERSEDES: September 2, 2008

SECTION 2 - HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>Percent By Weight</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4’-Diphenylmethane Diisocyanate</td>
<td>101-68-8</td>
<td>40-70%</td>
<td>0.005 ppm</td>
</tr>
<tr>
<td>Prepolymer – reaction product of polyol and MDI isocyanate</td>
<td>Undisclosed</td>
<td>30-60%</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Section 313 Supplier Notification
This product contains the following EPCRA section 313 chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372): Diisocyanate Compounds (Category Code N120)

| 4,4’- MDI | 101-68-8 | 36% | 0.005 ppm |

SECTION 3 – PHYSICAL DATA

Appearance: Yellow or light straw colored liquid.
Odor: Slightly misty.
Odor Threshold (ppm): 0.4 mg/ m³ (4,4’ Diphenylmethane Diisocyanate)
PH: Not applicable
Flash Point: > 200° F (93° C) Pensky-Martens Closed Cup
Vapor Pressure (mm Hg at 20° C): Approx. 0.000004 mmHg @ 77° F
Vapor Density (air = 1): 8.5 approx.
Boiling Point: >300 C decomposes

SECTION 4 – HEALTH HAZARDS DATA

Health Hazards: Irritating to eyes, respiratory system and skin. Inhalation at levels above the occupational exposure limit could cause respiratory sensitization and risk of serious damage to respiratory system. The onset of the respiratory symptoms may be delayed for several hours after exposure. A hyper-reactive response to even minimal concentrations of MDI may develop in sensitized persons. Sensitized persons should not be exposed to any mixture containing unreacted MDI.

Physical Hazards: Reacts slowly with water to produce carbon dioxide, which may rupture closed containers. This reaction accelerates at higher temperatures.

General: Polymeric MDI:
- Oral LD50 (rat) > 5,000 mg/kg
- Dermal LD50 (rabbit) > 5,000 mg/kg
- Inhalation LC50 (rat) > 490 mg/ m³/4 hour (respirable aerosol)

Inhalation: This product is a respiratory irritant and potential respiratory sensitizer. Inhalation of vapor or aerosol at levels above the occupational exposure limit could cause respiratory sensitization and lung injury. Symptoms may include irritation to the eyes, nose, throat, and lungs, possibly combined with dryness of the throat, tightness of chest and difficulty in breathing and/or flu-like symptoms. The onset of the respiratory symptoms may be delayed for several hours after exposure. A hyper-reactive response to even minimal concentrations of MDI may develop in sensitized persons.
SECTION 4 – HEALTH HAZARDS DATA (Continued)

Skin Contact: Moderate irritant. Repeated and/or prolonged contact may cause skin sensitization. There is limited evidence from animal studies that skin contact may play a role in respiratory sensitization. These results emphasize the need for protective clothing including gloves to be worn at all times when handling these chemicals or in maintenance work.

Eye Contact: The aerosol, vapor or liquid will irritate human eyes following contact.

Ingestion: Ingestion may cause irritation of the gastrointestinal tract. Based on the acute oral LD50, this product is considered practically non-toxic by ingestion.

Chronic Effects: A study was conducted where groups of rats were exposed for 6 hours a day, 5 days a week for a lifetime to atmospheres of respirable polymeric MDI aerosol either at concentrations of 0, 0.2, 1, 6 mg/m³. No adverse effects were observed at 0.2 mg/m³ concentrations. At the 1 mg/m³ concentrations, minimal nasal and lung irritant effects were seen. Only at the top concentration (6.0 mg/m³) there was an increased incidence of a beginning tumor of the lung (adenoma) and on malignant tumor (adenocarcinoma). Overall, the tumor incidence, both benign and malignant, and the number of animals with tumors were not different. The increased incidence of lung tumors is associated with prolonged respiratory irritation and the concurrent accumulation of yellow material in the lung. In the absence of prolonged exposure to high concentrations leading to chronic irritation and lung damage, it is highly unlikely that a tumor formation will occur.

There are reports that excessive chronic exposure to diisocyanates may result in permanent decrease in lung function.

Carcinogenicity: The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogens by NTP.

Mutagenicity: There is no substantial evidence of mutagenic anticipated.

Reproductive Effects: No adverse reproductive effects are anticipated.

Teratogenicity & Fetotoxicity: No birth defects were seen in two independent animal (rat) studies. Fetotoxicity was observed at doses that were extremely toxic (including lethal) to the mother. Fetotoxicity was not observed at doses that were not maternally toxic. The doses used in these studies were maximal, respirable concentrations well in excess of the defined occupational limits.

SECTION 5 – FIRST AID MEASURES

First Aid Procedures

General: In case of accident or if you feel unwell, seek medical advice IMMEDIATELY (show the label where possible).

Inhalation: Remove patient from exposure, keep warm and at rest. Obtain medical attention. Treatment is symptomatic for primary irritation or difficulty in breathing. If breathing is labored, oxygen should be administered by qualified personnel. Apply artificial respiration if breathing has ceased or shows signs of failing.

Skin Contact: Remove contaminated clothing. Wash affected areas thoroughly with soap and lukewarm water. If irritation, redness, or a burning sensation develops and persists, obtain medical advice. Contaminated clothing should be thoroughly cleaned before reuse.

Eye Contact: Immediately flush eyes with running water for a minimum of 15 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing eyes. Obtain medical attention IMMEDIATELY.

Ingestion: Do not induce vomiting. Provided the patient is conscious, wash out mouth with water, then give 1 or 2 glasses of water to drink. Refer person to medical personnel for immediate attention.

Note to Physician: Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.

SECTION 6 - FIRE AND EXPLOSION HAZARD DATA

Flash Point: > 230 °F (110 °C)  Flammable Limits (Lower): Not available.  Flammable Limits (Upper): Not available.

Auto Ignition Temperature: >600 °C

Decomposition Temperature: Not available  Rate of Burning: Not available.

Explosive Power: None  Sensitivity to Mechanical Impact: None

Sensitivity to Static Discharge: None

Combustion Products: Carbon monoxide, carbon dioxide, nitrogen oxides and some HCN.

Fire & Explosion Hazards: Containers may burst under intense heat. Due to reaction with water, a hazardous build up of pressure could result if contaminated containers are re-sealed.

Extinguishing Media: Carbon dioxide, dry chemical, or appropriate foam. If water is used, very large quantities are required. Reaction between water and hot isocyanate may be vigorous. Contain run-off water with temporary barriers.

Fire Fighting Procedures: As appropriate for surrounding materials/equipment.

Fire Fighting Protective Equipment: Use self-contained breathing apparatus & full protective clothing (Bunker gear).
**SECTION 7 – REACTIVITY DATA**

**Hazardous Decomposition Products:** Highly unlikely under normal industrial use. See section 4.
**Chemical Stability:** Stable at room temperature.
**Conditions to Avoid:** Avoid high temperatures. Avoid freezing.
**Incompatibility With Other Substances:** This product will react with any materials containing active hydrogens such as water, alcohol, amines, bases and acids. The reaction with water is very slow under 122°F (55°C) but is accelerated at higher temperatures.
**Hazardous Polymerization:** Polymerization may occur at elevated temperatures in the presence of alkali, tertiary amines and metal compounds.

**SECTION 8 – SPILL OR LEAK PROCEDURES**

For major spills call CHEMTREC (800) 424-9300

**Spills, Leaks, or Release:** Clean-up should only be performed by trained personnel. People dealing with major spillages should wear full protective clothing including full air supplied respirator. Evacuate the area. Prevent further leakage, spillage or entry into drains. Contain and absorb large spillages onto an inert, non-flammable absorbent carrier (such as earth or sand). Shovel into open-top drums or plastic bags for further decontamination, if necessary. Wash the spillage area clean with liquid decontaminant. Test atmosphere for MDI. Neutralize small spillages with decontaminant. Remove and properly dispose of residue. Notify applicable government authorities if release is reportable. The CERCLA RQ for MDI is 5,000 lbs (see CERCLA in section 15).

**Preparation of Decontamination Solution:** Prepare a decontamination solution of 0.2 – 0.5% liquid detergent and 3 – 8% concentrated ammonium hydroxide in water (5 – 10% sodium carbonate may be substituted for the ammonium hydroxide). Follow the precautions on the supplier’s material safety data sheet when preparing and using solution.

**Use of Decontamination Solution:** Allow deactivated material to stand for at least 30 minutes before shoveling into drums. Do not tighten bungs. Mixing with water is also effective, but slower.

**SECTION 9 – PERSONAL PROTECTION/PREVENTATIVE MEASURES**

**PREVENTIVE MEASURES**

Conditions of use, adequacy of engineering or other control measures, and actual exposure will dictate the need for specific devices at your workplace.

**Engineering Controls:** Use local exhaust ventilation to maintain airborne concentrations below the TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. For guidance on engineering control measures refer to the ACGIH publication “Industrial Ventilation”.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye Protection:** Chemical safety goggles. If there is a potential for splashing, use a full face shield.

**Skin Protection:** The following protective materials are recommended: Gloves – neoprene, nitrile rubber, butyl rubber. Thin latex disposable gloves should be avoided for repeated or long term use. Protective clothing should be selected and used in accordance with “Guidelines for the Selection of Chemical Protective Clothing” published by ACGIH.

**Respiratory Protection:** Use an approved NIOSH/MSHA positive pressure air-supplied respirator equipped with a full face piece, or an air-supplied hood, if airborne concentrations exceed or are expected to exceed the occupational exposure standard. Air purifying (cartridge type) respirators are not approved for protection against diisocyanates.

**Exposure Guidelines:** Medical supervision of all employees who handle or come in contact with respiratory sensitizers is recommended. Persons with respiratory problems including asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases or recurrent ski eczema or skin allergies should be evaluated for their suitability of working with this product. Once a person is diagnosed as sensitized, no further exposure to the material that caused the sensitization should be permitted.

**Hazardous Ingredient(s):**

4,4’-Dipheylmethane Diisocyanate:

| ACGIH TLV | 0.005 ppm (8 hour, 40 hours/week) |
| OSHA PEL CEILING | 0.02 ppm |
| NIOSH REL/TWA | 0.005 ppm (10 hour, 40 hours/week) |
| NIOSH REL/CEILING | 0.002 ppm (10 minutes) |

**Note:** The Occupational Exposure Limit listed for isocyanates do not apply to previously sensitized individuals.

**SECTION 10 – HANDLING & STORAGE**

**Handling:** Avoid personal contact with the product or reaction mixture. Use only with adequate ventilation to ensure that the occupational exposure limit is not exceeded. The efficiency of the ventilation system must be monitored regularly because of possibility of blockage. Avoid breathing aerosols, mists and vapors. When the product is sprayed or heated, an approved MSHA/NIOSH positive-pressure supplied air respirator may be required.
**SECTION 10 – HANDLING & STORAGE (Continued)**

**Storage Requirements:** Keep containers properly sealed. When stored indoors, keep in well ventilated area. Keep contents away from moisture due to reaction with water, producing CO₂ – gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. **Do not reseal contaminated containers.** Uncontaminated containers, free of moisture, may be resealed only after placing under a nitrogen blanket. Do not store in containers made of copper, copper alloys, or galvanized surfaces.

**Storage Temperature:** Ideal storage temperature is 60 - 100°F (16 - 38°C). Keep stocks of decontaminant (see section 8).

**Container Disposal:** The generation of waste should be avoided or minimized wherever possible. Disposal should be in accordance with local, state, provincial or national regulations. This material is not a hazardous waste under RCRA 40 CFR 261. Small quantities should be treated with a decontaminant solution (see section 8). The treated waste is not a hazardous material under RCRA 40 CFR 261. Chemical waste, even small quantities, should never be poured down drains, sewers or waterways.

Empty containers should be decontaminated and either passed to an approved drum recycler or destroyer.

**SECTION 11 – REGULATORY INFORMATION**

**DOT:** Single containers less than 5,000 lbs are not regulated. Single containers with 5,000 lbs or more of 4,4’-MDI are regulated as Other Regulated Substances, Liquid, N.O.S. (Methylene Diphenyl Disocyanate), 9, NA3082, PGIII, RQ.

**TDG:** Not regulated.

**IMO:** Not regulated.

**IATA/IACO Class:** Not regulated.

**USA CLASSIFICATION**

**OSHA Classification:** This product is classified as a hazardous material under the criteria outlined in the OSHA Communication Standard (HCS) (29 CFR 1910.1200).

**TSCA (Toxic Substance Control Act) Regulations:** All ingredients are on the TSCA Chemical Substance Inventory.

**EPCRA Section 313 (40 CFR 372):** This product contains the following chemical(s) subject to reporting requirements: 36% 4,4’-MDI.

**CERCLA (Comprehensive Environmental Response, Compensation and Liability Act):** 4,4’-Methylene diphenyl diisocyanate (CAS # 101-68-8) has a 5,000 lb RQ (reportable quantity). Any spill or release above the RQ must be reported to the National Response Center (800-424-8802). The % of 4,4’-MDI in this product is listed in Section 2 of this MSDS. This product does not contain nor is it manufactured with ozone depleting substances.

**Other Regulations/Legislation which apply to this product:** Massachusetts Right-to-Know, Pennsylvania Right-to-Know, New Jersey Right-to-Know, CERCLA.

**CANADIAN CLASSIFICATION**

This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations) and this MSDS (Material Safety Data Sheet) contains all the information required by the CPR.

**Controlled Products Regulations (WHMIS) Classifications:** D-1A: Very toxic (acute effects) D-2A: Very toxic D-2B: Toxic

**CEPA/Canadian Domestic Substances List (DSL):** The substance(s) in this product is/are on the Canadian Domestic Substances List (CEPA DSL).

**SECTION 12 - DISCLAIMER**

**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.