

According to Canadian Hazardous Products Regulations and WHMIS 2015

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Rhino Extreme HP 11-50 GT Isocyanate

SECTION 1: Identification

Product identifier

Product name: Rhino Extreme HP 11-50 GT Isocyanate **Synonyms:** MDI Prepolymer / Aromatic Isocyante

Product code: 60062

Recommended use of the product and restriction on use

Relevant identified uses: POLYUREA SPRAY ELASTOMER SYSTEM - ISO

Component

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer: United States

Rhino Linings Corporation 9747 Businesspark Avenue San Diego, CA 92131 858-450-0441 www.rhinolinings.com

Emergency telephone number:

North America

CHEMTREC 800-424-9300 (24/7)

SECTION 2: Hazard identification

GHS classification:

Acute toxicity (inhalation), category 4

Skin irritation, category 2

Eye irritation, category 2A

Respiratory sensitization, category 1

Skin sensitization, category 1

Carcinogenicity, category 2

Specific target organ toxicity - single exposure, category 3, respiratory tract irritation

Specific target organ toxicity - repeated exposure, category 2

Label elements

Hazard pictograms:





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Signal Word: Danger

Hazard statements:

H315 Causes skin irritation

H319 Causes serious eye irritation

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H317 May cause an allergic skin reaction

H351 Suspected of causing cancer.

H335 May cause respiratory irritation

H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

H332 Harmful if inhaled

Precautionary statements:

P201 Obtain special instructions before use

P202 Do not handle until all safety precautions have been read and understood

P264 Wash any exposed skin thoroughly after handling.

P260 Do not breathe dust, fumes, gas, mist, vapours or spray.

P271 Use only outdoors or in a well-ventilated area

P272 Contaminated work clothing should not be allowed out of the workplace

P280 Wear protective gloves, protective clothing, eye protection and face protection.

P284 In case of inadequate ventilation wear respiratory protection.

P302+P352 IF ON SKIN: Wash with plenty of water and soap.

P321 Specific treatment (see Sections 4-8 of this SDS and any supplemental information on the product label).

P333+P313 If skin irritation or rash occurs: Get medical advice or attention.

P362+P364 Take off contaminated clothing and wash it before reuse

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 or attention.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or physician.

P308+P313 If exposed or concerned: Get medical advice or attention.

P312 Call a POISON CENTER if you feel unwell.

P405 Store locked up

P403+P233 Store in a well-ventilated place. Keep container tightly closed

P501 Dispose of contents and container in accordance with local, regional, national, and international regulations.

Hazards not otherwise classified:

CONTAINS ISOCYANATES. INHALATION OF ISOCYANATE MISTS OR VAPORS MAY CAUSE RESPIRATORY IRRITATION, BREATHLESSNESS, CHEST DISCOMFORT AND REDUCED PULMONARY FUNCTION.

OVEREXPOSURE WELL ABOVE THE PEL MAY RESULT IN BRONCHITIS, BRONCHIAL SPASMS AND PULMONARY EDEMA. LONG-TERM EXPOSURE TO ISOCYANATES HAS BEEN REPORTED TO CAUSE LUNG DAMAGE, INCLUDING REDUCED LUNG FUNCTION WHICH MAY BE PERMANENT. ACUTE OR CHRONIC OVEREXPOSURE TO ISOCYANATES MAY CAUSE SENSITIZATION IN SOME INDIVIDUALS, RESULTING IN ALLERGIC RESPIRATORY REACTIONS INCLUDING WHEEZING, SHORTNESS OF BREATH AND DIFFICULTY BREATHING. ANIMAL TESTS AND OTHER RESEARCH INDICATE THAT SKIN CONTACT WITH MDI MAY PLAY A ROLE IN CAUSING RESPIRATORY SENSITIZATION.

SECTION 3: Composition/information on ingredients

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| Identification | Name | Weight % |
|------------------------|--|----------|
| CAS number: 101-68-8 | 4,4'-methylenediphenyl diisocyanate | 55-75 |
| CAS number: 5873-54-1 | o-(p-isocyanatobenzyl)phenyl isocyanate | 10-20 |
| CAS number: 25686-28-6 | 4,4'-Methylenediphenyl diisocyanate, oligomers | 10-20 |

Additional Information:

Specific chemical identity and/or exact percentage (concentration) of each ingredient may be held as confidential business information (CBI). Any ingredient not disclosed in this section may have been determined not to be hazardous to health or the environment, or it may be present at a level below its disclosure threshold.

SECTION 4: First-aid measures

Description of first-aid measures

General notes:

Show this Safety Data Sheet to the doctor in attendance.

After inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If experiencing respiratory symptoms, seek medical advice/attention.

After skin contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

After eye contact:

Rinse eyes with plenty of water for several minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

After ingestion:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Eye contact may result in irritation, redness, pain, inflammation, itching, burning and tearing. Inhalation exposure may cause allergy, asthma symptoms or breathing difficulties. Symptoms may include cough, chronic phlegm, shortness of breath, wheezing and chest tightness. Symptoms may be delayed.

Dermal exposure may cause an allergic skin reaction. Symptoms may include irritation, redness, pain, rash, inflammation, itching, burning and dermatitis.

Delayed symptoms and effects:

Suspected of causing cancer. Effects are dependent on exposure (dose, concentration, contact time). May cause damage to organs through prolonged or repeated exposure. Effects are dependent on

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exposure (dose, concentration, contact time).

Immediate medical attention and special treatment

Specific treatment:

If respiratory symptoms persist, seek medical attention.

Notes for the doctor:

Treat symptomatically.

SECTION 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media:

Water mist/fog, carbon dioxide, dry chemical or alcohol resistant foam.

Unsuitable extinguishing media:

Do not use water jet.

Specific hazards during fire-fighting:

Thermal decomposition may produce irritating/toxic fumes/gases.

Special protective equipment for firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-face piece operated in positive pressure mode.

Special precautions:

Avoid contact with skin, eyes, hair and clothing. Do not breathe fumes/gas/mists/aerosols/vapors/dusts. Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers. Avoid unnecessary run-off of extinguishing media which may cause pollution.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. Wear recommended personal protective equipment (see Section 8). Avoid contact with skin, eyes and clothing. Avoid breathing mist, vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

Methods and material for containment and cleaning up:

Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Stop leak if you can do it without risk. Contain and collect spillage and place in suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Reference to other sections:

For personal protective equipment see Section 8. For disposal see Section 13.

SECTION 7: Handling and storage

Precautions for safe handling:

Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling

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chemical substances. Avoid contact with skin, eyes and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

Conditions for safe storage, including any incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight. Keep away from food and beverages. Protect from freezing and physical damage. Store away from heat, open flames and other sources of ignition. Keep container tightly sealed. Store away from incompatible materials (See Section 10). Recommended storage temperature: 16 - 32°C (60 - 90°F)

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|--------------------------|--|------------|---|
| Alberta | 4,4'-methylenediphenyl diisocyanate | 101-68-8 | 8-Hour TWA: 0.05 mg/m ³ (0.005 ppm) |
| British Columbia | 4,4'-methylenediphenyl diisocyanate | 101-68-8 | 8-Hour TWA: 0.005 ppm |
| | 4,4'-methylenediphenyl diisocyanate | 101-68-8 | Ceiling Limit: 0.02 ppm |
| | o-(p-isocyanatobenzyl)phenyl isocyanate | 5873-54-1 | 8-Hour TWA: 0.005 ppm (Diisocyanates, not elsewhere specified, NOS) |
| | o-(p-isocyanatobenzyl)phenyl isocyanate | 5873-54-1 | Ceiling Limit: 0.01 ppm (Diisocyanates, not elsewhere specified, NOS) |
| | 4,4'-Methylenediphenyl diisocyanate, oligomers | 25686-28-6 | 8-Hour TWA: 0.005 ppm (Diisocyanates, not elsewhere specified, NOS) |
| | 4,4'-Methylenediphenyl diisocyanate, oligomers | 25686-28-6 | Ceiling Limit: 0.01 ppm (Diisocyanates, not elsewhere specified, NOS) |
| Manitoba | 4,4'-methylenediphenyl diisocyanate | 101-68-8 | 8-Hour TWA: 0.005 ppm |
| Ontario | 4,4'-methylenediphenyl diisocyanate | 101-68-8 | 8-Hour TWA: 0.005 ppm |
| | 4,4'-methylenediphenyl diisocyanate | 101-68-8 | Ceiling Limit: 0.02 ppm |
| Quebec | 4,4'-methylenediphenyl diisocyanate | 101-68-8 | 8-Hour TWA: 0.051 mg/m ³ (0.005 ppm) |
| Saskatchewan | 4,4'-methylenediphenyl diisocyanate | 101-68-8 | 15-Minute Contamination Limit: 0.015 ppm |
| | 4,4'-methylenediphenyl diisocyanate | 101-68-8 | 8-Hour Contamination Limit: 0.005 ppm |
| New Brunswick | 4,4'-methylenediphenyl diisocyanate | 101-68-8 | 8-Hour TWA: 0.005 ppm |
| | 4,4'-methylenediphenyl diisocyanate | 101-68-8 | Ceiling Limit: 0.02 ppm |

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

Emergency eye wash stations and safety showers should be available in the immediate vicinity of use or

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handling. Provide adequate ventilation to maintain the airborne concentrations of vapor, mists, and/or dusts below the applicable workplace exposure limits, while observing recognized national standards (or equivalent).

Personal protection equipment

Eye and face protection:

Safety glasses or goggles. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).

Skin and body protection:

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

Respiratory protection:

If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by recognized national standards (or equivalent) must be worn.

General hygienic measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

| Appearance (physical state, color): | Liquid |
|--|----------------------------------|
| Odor: | Musty |
| Odor threshold: | Not determined or not available. |
| pH-value: | Not determined or not available. |
| Melting/Freezing point: | Not determined or not available. |
| Boiling point/range: | >200°C (>392°F) |
| Flash point: | >200°C (>392°F) |
| Evaporation rate: | Not determined or not available. |
| Flammability (solid, gaseous): | Not determined or not available. |
| Explosion limit upper: | Not determined or not available. |
| Explosion limit lower: | Not determined or not available. |
| Vapor pressure: | ~ 0.00001 mmHg @ 25°C (77°F) |
| Vapor density: | Not determined or not available. |
| Density: | Not determined or not available. |
| Relative density: | Not determined or not available. |
| Solubilities: | Insoluble |
| Partition coefficient (n-octanol/water): | Not determined or not available. |
| Auto/Self-ignition temperature: | Not determined or not available. |

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| Decomposition temperature: | Not determined or not available. |
|----------------------------|----------------------------------|
| Dynamic viscosity: | Not determined or not available. |
| Kinematic viscosity: | Not determined or not available. |
| Explosive properties | Not determined or not available. |
| Oxidizing properties | Not determined or not available. |

SECTION 10: Stability and reactivity

Reactivity:

Not reactive under recommended handling and storage conditions.

MDI is insoluble in and heavier than water and sinks to the bottom but reacts slowly at the interface. A solid water-insoluble layer of polyurea is formed at the interface accompanied by carbon dioxide release. This can lead to container bursting, if tightly closed. There is a risk of exothermic reaction with materials containing active hydrogen groups. The reaction becomes progressively more vigorous and can be violent at higher temperatures if the miscibility of the reaction partners is good or is supported by stirring or by the presence of solvents. Contact with certain rubbers and plastics can cause brittleness of the product with subsequent loss in strength.

Chemical stability:

Stable under recommended handling and storage conditions.

Product is hygroscopic; contamination with moisture will negatively affect product performance. Avoid unintended contact with incompatible chemicals; the reaction will generate heat.

Possibility of hazardous reactions:

Hazardous reactions are not anticipated under recommended conditions of handling and storage. Contact with moisture, alcohols, amines, bases and acids or temperatures above 350°F (177°C) can cause hazardous polymerization.

Conditions to avoid:

Extreme heat, open flames, hot surfaces, sparks, ignition sources and incompatible materials.

Incompatible materials:

Strong oxidizing agents. Water, alcohols, amines, bases, acids, copper, aluminum and zinc alloys.

Hazardous decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Combustion products may include: carbon monoxide, carbon dioxide, nitrogen oxides, hydrocarbons and HCN. In the event of extreme heat (>500 degrees C), aniline is suspected of being formed.

SECTION 11: Toxicological information

Acute toxicity

Assessment:

Harmful if inhaled.

Product data: No data available.

Substance data:

| Name | Route | Result |
|------------------------|------------|--------------------------------------|
| 4,4'-methylenediphenyl | oral | LD50 Rat: 9200 mg/kg |
| diisocyanate | inhalation | LC50 Rat: 368 mg/m³ (4 hr [Aerosol]) |
| | dermal | LD50 Rabbit: >7940 mg/kg |

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| Name | Route | Result |
|---|------------|---|
| o-(p-isocyanatobenzyl)phenyl isocyanate | oral | LD50 Rat: >2000 mg/kg |
| | inhalation | LC50 Rat: 387.46 mg/m³ (4 hr - Aerosol) |
| | dermal | LD50 Rabbit: >9400 mg/kg |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | oral | LD50 Rat: >2000 mg/kg |
| | inhalation | LC50 Rat: 559 mg/m³ (4 hr) |
| | dermal | LD50 Rabbit: >9400 mg/kg |

Skin corrosion/irritation

Assessment:

Causes skin irritation.

Product data:

No data available.

Substance data:

| Name | Result |
|---|-------------------------|
| 4,4'-methylenediphenyl diisocyanate | Causes skin irritation. |
| o-(p-isocyanatobenzyl)phenyl isocyanate | Causes skin irritation. |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | Causes skin irritation. |

Serious eye damage/irritation

Assessment:

Causes serious eye irritation.

Product data:

No data available.

Substance data:

| Name | Result |
|---|--------------------------------|
| 4,4'-methylenediphenyl diisocyanate | Causes serious eye irritation. |
| o-(p-isocyanatobenzyl)phenyl isocyanate | Causes serious eye irritation. |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | Causes serious eye irritation. |

Respiratory or skin sensitization

Assessment:

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Product data:

No data available.

Substance data:

| Name | Result |
|------------------------|--|
| 4,4'-methylenediphenyl | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| diisocyanate | May cause an allergic skin reaction. |

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| Name | Result |
|---|--|
| | May cause an allergic skin reaction. |
| isocyanate | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| | May cause an allergic skin reaction. |

Carcinogenicity

Assessment:

Suspected of causing cancer. **Product data:** No data available.

Substance data:

| Name | Species | Result |
|---|---------|------------------------------|
| 4,4'-methylenediphenyl diisocyanate | | Suspect of causing cancer. |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | Rat | Suspected of causing cancer. |

International Agency for Research on Cancer (IARC):

| Name | Classification |
|---|----------------|
| 4,4'-methylenediphenyl diisocyanate | Group 3 |
| o-(p-isocyanatobenzyl)phenyl isocyanate | Group 3 |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | Group 3 |

National Toxicology Program (NTP):

| Name | Classification |
|---|----------------|
| 4,4'-methylenediphenyl diisocyanate | Not Applicable |
| o-(p-isocyanatobenzyl)phenyl isocyanate | Not Applicable |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | Not Applicable |

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data:No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment:

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May cause respiratory irritation.

Product data: No data available. Substance data:

| Name | Result |
|--|-----------------------------------|
| 4,4'-methylenediphenyl diisocyanate | May cause respiratory irritation. |
| o-(p-isocyanatobenzyl)phenyl isocyanate | May cause respiratory irritation. |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | May cause respiratory irritation. |

Specific target organ toxicity (repeated exposure)

Assessment:

May cause damage to organs through prolonged or repeated exposure.

Product data:

No data available.

Substance data:

| Name | Result | |
|---|--|--|
| 4,4'-methylenediphenyl diisocyanate | Prolonged or repeated exposure may damage the respiratory system and lungs, including fibrosis. Long-term exposure may result in restriction of pulmonary function and a decrease in CO single breath transfer factor. | |
| o-(p-isocyanatobenzyl)phenyl isocyanate | May cause damage to respiratory system through repeated or prolonged exposure via inhalation. | |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | May cause damage to the respiratory system and lungs through prolonged or repeated exposure. | |

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:No data available.

Substance data: No data available.

Information on likely routes of exposure:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

Other information:

No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

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| Name | Result |
|---|---|
| 4,4'-methylenediphenyl diisocyanate | Fish EC50 Danio rerio: >1000 mg/L (96 h) |
| | Fish LC50 Danio rerio: >1000 mg/L (96 hr) |
| | Aquatic Invertebrates EC50 Daphnia magna: 129.7 mg/L (24 hr [mobility]) |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | Fish LC50 Danio rerio: >1000 mg/L (96 hr) |
| | Aquatic Invertebrates EC50 Daphnia magna: >1000 mg/L (24 hr [mobility]) |

Chronic (long-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

| Name | Result |
|-------------------------------------|--|
| 4,4'-methylenediphenyl diisocyanate | Aquatic Invertebrates NOEC Daphnia magna: ≥10 mg/L (21 d) |
| 1 " | Aquatic Plants EC50 Scenedesmus subspicatus: >1640 mg/L (3 days) |
| isocyanate | Aquatic Invertebrates NOEC Daphnia magna: >10 mg/L (21 days) |

Persistence and degradability

Product data: No data available.

Substance data:

| Name | Result |
|---|---|
| 4,4'-methylenediphenyl diisocyanate | The substance is not readily biodegradable. 0% degradation, measured by BOD, after 28 days. |
| o-(p-isocyanatobenzyl)phenyl isocyanate | The main hydrolysis products of the MDI substances are inert and insoluble polyurea with high molecular weights. Based on structural activity relationship for biodegradability, the polyurea, having increased molecular weight and reduced water solubility, are expected to be hydrolytically stable and not biodegradable in the environment. |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | The main hydrolysis products of the MDI substances are inert and insoluble polyurea with high molecular weights. Based on structural activity relationship for biodegradability, the polyurea, having increased molecular weight and reduced water solubility, are expected to be hydrolytically stable and not biodegradable in the environment. |

Bioaccumulative potential

Product data: No data available.

Substance data:

| Name | Result | |
|---|---|--|
| 4,4'-methylenediphenyl diisocyanate | Due to the fast hydrolysis, exposure of the environment to the substance is unlikely or very low. The log Kow of MDA, the expected hydrolysis product, is 1.55. | |
| o-(p-isocyanatobenzyl)phenyl isocyanate | The substance has low potential for bioaccumulation. BCF (aquatic species): 200 dimensionless | |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | The substance has a low potential for bioaccumulation. BCF (aquatic species): 200 dimensionless | |

Mobility in soil

Product data: No data available.

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Substance data:

| Name | Result |
|---|---|
| | The substance is immobile to hardly mobile in soil with a strong potential for adsorption to soil and sediment. Estimated Log Koc: 5.5- 18.0 L/kg |
| | The substance is hardly mobile in soil with a high potential for adsorption to soil and sediment. |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | The substance is hardly mobil in soil with a high potential for adsorption to soil and sediment. Log Koc: 4.5 L/kg |

Results of PBT and vPvB assessment

Product data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT. **vPvB assessment:** This product does not contain any substances that are assessed to be a vPvB.

Substance data:

PBT assessment:

| 4,4'-methylenediphenyl diisocyanate | The substance is not PBT. |
|--|----------------------------|
| o-(p-isocyanatobenzyl)phenyl isocyanate | The substance is not PBT. |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | This substance is not PBT. |

vPvB assessment:

| 4,4'-methylenediphenyl diisocyanate | The substance is not vPvB. |
|--|-----------------------------|
| o-(p-isocyanatobenzyl)phenyl isocyanate | The substance is not vPvB. |
| 4,4'-Methylenediphenyl diisocyanate, oligomers | This substance is not vPvB. |

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

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.

Contaminated packages:

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

Canadian Transportation of Dangerous Goods (TDG)

| UN number | Not regulated |
|-------------------------|---------------|
| UN proper shipping name | Not regulated |

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| UN transport hazard class(es) | None |
|-------------------------------|------|
| Packing group | None |
| Environmental hazards | None |
| Special precautions for user | None |

International Maritime Dangerous Goods (IMDG)

| UN number | Not regulated |
|-------------------------------|---------------|
| UN proper shipping name | Not regulated |
| UN transport hazard class(es) | None |
| Packing group | None |
| Environmental hazards | None |
| Special precautions for user | None |

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

| UN number | Not regulated |
|-------------------------------|---------------|
| UN proper shipping name | Not regulated |
| UN transport hazard class(es) | None |
| Packing group | None |
| Environmental hazards | None |
| Special precautions for user | None |

| Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | | |
|---|------|--|
| Bulk Name | None | |
| Ship type | None | |
| Pollution category | None | |

SECTION 15: Regulatory information

Canada regulations

Domestic substances list (DSL): All ingredients are listed or exempt. **Non-domestic substances list (NDSL):** None of the ingredients are listed.

Additional information: Not determined.

SECTION 16: Other information

Abbreviations and Acronyms: None

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. Sections 11/12 Disclaimer (Toxicity/Ecotoxicity): This product itself has not been

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Rhino Extreme HP 11-50 GT Isocyanate

tested. Information given is based on data on the components and the toxicology of similar products. Section 14 (Transport Information): Information provided in Section 14 is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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Revision Notes:

| Revision Date | Notes |
|---------------|-----------------|
| 2015-05-20 | |
| 2016-05-13 | Internal Review |
| 2023-07-14 | Internal Review |

End of Safety Data Sheet