Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 06.15.2015

Revision date: 05.20.2026

Duratite 1175

SECTION 1: Identification

Product Identifier

Product Name: Duratite 1175

Product code: DT1175

Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: ROOF COATING SYSTEM - Single Component Urethane

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
1001 Ed Rutherford Road
Greenville, TX 75402
800-422-2603
www.rhinolinings.com

Emergency Telephone Number:

North America

CHEMTREC
800-424-9300 (24/7)

SECTION 2: Hazard(s) Identification

GHS Classification:

Flammable liquids, category 3
Acute toxicity (inhalation), category 4
Acute toxicity (dermal), category 4
Skin irritation, category 2
Eye irritation, category 2A
Respiratory sensitization, category 1
Skin sensitization, category 1
Germ cell mutagenicity, category 1B
Carcinogenicity, category 1B
Specific target organ toxicity - single exposure, category 3, respiratory tract irritation
Specific target organ toxicity - repeated exposure, category 1
Aspiration hazard, category 1
Chronic aquatic hazard, category 2

Label elements

Hazard Pictograms:

Signal Word: Danger

Hazard statements:

H226 Flammable liquid and vapor
H332 Harmful if inhaled (Dusts/Mists)
H312 Harmful in contact with skin
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
H340 May cause genetic defects.
H350 May cause cancer.
H335 May cause respiratory irritation
H372 Causes damage to organs through prolonged or repeated exposure.
H304 May be fatal if swallowed and enters airways
H411 Toxic to aquatic life with long lasting effects

Precautionary Statements:

P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P233 Keep container tightly closed
P240 Ground/bond container and receiving equipment
P241 Use explosion-proof electrical, ventilating, and lighting equipment.
P242 Use only non-sparking tools
P243 Take precautionary measures against static discharge
P260 Do not breathe dust, fumes, gas, mist, vapors or spray.
P264 Wash any exposed skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product
P271 Use only outdoors or in a well-ventilated area
P272 Contaminated work clothing must 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.
P273 Avoid release to the environment
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER.
P331 Do NOT induce vomiting
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with shower.
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.
P363 Wash contaminated clothing before reuse
P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or physician.
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.

P308+P313 If exposed or concerned: Get medical advice or attention.
P370+P378 In case of fire: Use CO2, dry chemical, or foam to extinguish
P391 Collect spillage
P314 Get medical advice/attention if you feel unwell
P403+P233 Store in a well-ventilated place. Keep container tightly closed
P405 Store locked up
P403+P235 Store in a well-ventilated place. Keep cool
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.
AQUATIC CLASSIFICATION (Aquatic Chronic 2 – H411) indicates potential harm to aquatic environments if released. It does not meet criteria for classification as a marine pollutant under transport regulations (IMDG). Proper disposal practices are required—do not discharge into drains, soil, or water bodies. See Section 13 for disposal guidance.

SECTION 3: Composition/Information on Ingredients

Identification	Name	Weight %
CAS Number: 9016-87-9	Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	15-25
CAS Number: 101-68-8	4,4'-methylenediphenyl diisocyanate	15-25
CAS Number: 26447-40-5	Diphenylmethane diisocyanate	1-5
CAS Number: 25322-69-4	Polypropylene glycol	10-20
CAS Number: 1330-20-7	Xylene	10-20
CAS Number: 98-82-8	Cumene	0.1-1
CAS Number: 100-41-4	Ethylbenzene	1-5
CAS Number: 7429-90-5	Aluminum powder (stabilized)	15-25
CAS Number: 64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	1-5

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 symptoms develop or persist, 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 gently flowing lukewarm water for 15 minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

After Swallowing:

This product presents an aspiration hazard. If aspiration is suspected, seek emergency medical treatment. 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:

May be fatal if swallowed and enters airways. Aspiration may cause pulmonary edema and pneumonitis. Symptoms may include shortness of breath, dry cough and irritation of the nose, eyes, lips, mouth and throat.

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

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.

Product is flammable. Exposure to sources of ignition may cause physical injury.

Delayed Symptoms and Effects:

Exposure may cause cancer. Effects are dependent on exposure (dose, concentration, contact time).

Symptoms of pulmonary edema may be delayed.

Effects are dependent on exposure (dose, concentration, contact time).

Symptoms of exposure may be delayed.

Exposure may cause genetic defects. Effects are dependent on exposure (dose, concentration, contact time).

Causes damage to organs through prolonged or repeated exposure. Effects are dependent on exposure

(dose, concentration, contact time).

Immediate Medical Attention and Special Treatment

Specific Treatment:

If respiratory symptoms persist, seek medical attention.

Skin/eye burns require immediate treatment.

Notes for the Doctor:

Treat symptomatically.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media:

Dry chemical, CO2, water spray or alcohol-resistant foam.

Unsuitable Extinguishing Media:

Do not use water jet.

Specific Hazards During Fire-Fighting:

Flammable liquid. Will be easily ignitable by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Inhalation or contact with material may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation.

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:

Evacuate non-essential personnel. Ventilate closed spaces before entering. Consider initial evacuation for 300 meters in all directions. If tank/rail car is involved in the fire, ISOLATE for 800 meters in all directions. Fight fire from a maximum distance. Move containers from fire area if you can do it without risk. Use water spray/fog for cooling fire exposed containers. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles. If this is impossible, withdraw from area and let fire burn. Stand by, at a safe distance, with extinguisher ready for possible re-ignition. A vapor-suppressing foam may be used to reduce vapors. Avoid unnecessary run-off of extinguishing media which may cause pollution. Do not handle damaged containers unless specialized to do so.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. All equipment used when handling the product must be grounded. 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. A vapor-suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers 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:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating and lighting equipment. Take action to prevent static discharges. Handle containers with caution. 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 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). Storage temperature: 16 - 27°C (60 - 80°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
OSHA	4,4'-methylenediphenyl diisocyanate	101-68-8	PEL Ceiling: 0.2 mg/m³ (0.02 ppm)
	Diphenylmethane diisocyanate	26447-40-5	PEL Ceiling: 0.2 mg/m³ (0.02 ppm)
	Cumene	98-82-8	8-Hour TWA-PEL: 245 mg/m³ (50 ppm)
	Ethylbenzene	100-41-4	8-Hour TWA-PEL: 435 mg/m³ (100 ppm)
	Xylene	1330-20-7	8-Hour TWA: 435 mg/m³ (100 ppm)
	Aluminum powder (stabilized)	7429-90-5	8-Hour TWA-PEL: 15 mg/m³ (total dust)
	Aluminum powder (stabilized)	7429-90-5	8-Hour TWA-PEL: 5 mg/m³ (respirable fraction)
	Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	TWA: 400 mg/m³ (100 ppm)
NIOSH	4,4'-methylenediphenyl diisocyanate	101-68-8	REL-TWA: 0.05 mg/m³ ([0.005 ppm] up to 10 hr)
	4,4'-methylenediphenyl diisocyanate	101-68-8	Ceiling Limit: 0.2 mg/m³ ([0.02 ppm] 10 min)
	4,4'-methylenediphenyl diisocyanate	101-68-8	IDLH: 75 mg/m³
	Diphenylmethane diisocyanate	26447-40-5	Ceiling Limit: 0.2 mg/m³ ([0.020 ppm] 10 min)
	Diphenylmethane diisocyanate	26447-40-5	IDLH: 75 mg/m³

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Diphenylmethane diisocyanate	26447-40-5	REL-TWA: 0.05 mg/m³ ([0.005 ppm] 10 hr)
	Cumene	98-82-8	REL-TWA: 245 mg/m³ (50 ppm [10-hour workday])
	Cumene	98-82-8	IDLH: 900 ppm
	Ethylbenzene	100-41-4	REL-TWA: 435 mg/m³ (100 ppm [10-hr])
	Ethylbenzene	100-41-4	15-Minute STEL: 545 mg/m³ (125 ppm)
	Ethylbenzene	100-41-4	IDLH: 800 ppm
	Xylene	1330-20-7	IDLH: 900 ppm
	Xylene	1330-20-7	15-Minute STEL: 655 mg/m³ (150 ppm)
	Xylene	1330-20-7	REL-TWA: 435 mg/m³ (100 ppm [up to 10 hr])
	Aluminum powder (stabilized)	7429-90-5	8-Hour TWA: 10 mg/m³ (Total dust [up to 10 hr])
	Aluminum powder (stabilized)	7429-90-5	8-Hour TWA: 5 mg/m³ (Respirable [up to 10 hr])
	Aluminum powder (stabilized)	7429-90-5	8-Hour TWA: 5 mg/m³ (Pyro powders and welding fumes, as Al [up to 10 hr])
	Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	REL-TWA: 350 mg/m³ ([up to 10 hr] for Stoddard Solvent)
	Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	Ceiling Limit: 1800 mg/m³ ([15 min] for Stoddard Solvent)
	Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	IDLH: 1000 ppm
ACGIH	4,4'-methylenediphenyl diisocyanate	101-68-8	8-Hour TWA: 0.005 ppm
	Diphenylmethane diisocyanate	26447-40-5	8-Hour TWA: 0.005 ppm
	Cumene	98-82-8	8-Hour TWA: 5 ppm
	Ethylbenzene	100-41-4	8-Hour TWA: 20 ppm
	Xylene	1330-20-7	8-Hour TWA: 20 ppm
	Aluminum powder (stabilized)	7429-90-5	8-Hour TWA: 1 mg/m³ (respirable fraction)
	Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	8-Hour TWA: 100 ppm (for Stoddard Solvent)
United States(California)	4,4'-methylenediphenyl diisocyanate	101-68-8	8-Hour TWA-PEL: 0.051 mg/m³ (0.005 ppm)
	Diphenylmethane diisocyanate	26447-40-5	8-Hour TWA-PEL: 0.051 mg/m³ (0.005 ppm)
	Cumene	98-82-8	8-Hour TWA: 245 mg/m³ (50 ppm)
	Ethylbenzene	100-41-4	8-Hour TWA-PEL: 435 mg/m³ (100 ppm)
	Ethylbenzene	100-41-4	15-Minute STEL: 545 mg/m³ (125 ppm)
	Xylene	1330-20-7	Ceiling Limit: 300 ppm
	Xylene	1330-20-7	15-Minute STEL: 655 mg/m³ (150 ppm)

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Xylene	1330-20-7	8-Hour TWA-PEL: 435 mg/m³ (100 ppm)
	Xylene	1330-20-7	PEL Ceiling: 300 ppm
	Aluminum powder (stabilized)	7429-90-5	8-Hour TWA-PEL: 5 mg/m³ (respirable fraction)
	Aluminum powder (stabilized)	7429-90-5	8-Hour TWA-PEL: 10 mg/m³ (total dust)
	Aluminum powder (stabilized)	7429-90-5	8-Hour TWA-PEL: 5 mg/m³ (Pyro powders)
	Aluminum powder (stabilized)	7429-90-5	8-Hour TWA-PEL: 5 mg/m³ (Welding fumes)
	Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	STEL: 1800 mg/m³ (400 ppm)
	Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	8-Hour TWA-PEL: 1600 mg/m³ ([400 ppm] Rubber solvent, naphtha)
WEEL	Polypropylene glycol	25322-69-4	8-Hour TWA: 10 mg/m³ (Aerosol)

Biological Limit Values:

Country (Legal Basis)	Substance	Identifier	Determinant	Specimen	Sampling time	Permissible limits
ACGIH	Ethylbenzene	100-41-4	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	End of shift.	0.15 g/g
	Xylene	1330-20-7	Methylhippuric acids	Creatinine in urine	End of shift.	1.5 g/g

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 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	Silver/Grey Liquid
Odor	Solvent-like Odor
Odor threshold	Not determined or not available.
pH	No Test Data Available
Melting point/freezing point	No Test Data Available
Initial boiling point/range	No Test Data Available
Flash point (closed cup)	>38°C (>100°F)
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	No Test Data Available
Upper flammability/explosive limit	No Test Data Available
Lower flammability/explosive limit	No Test Data Available
Vapor pressure	5.1 mmHg
Vapor density	No Test Data Available
Density	8.8 lbs/gal (Liquid)
Relative density	1.06 @ 25°C (77°F)
Solubilities	Reacts with water
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	No Test Data Available
Decomposition temperature	Not determined or not available.
Dynamic viscosity	200 cPs @ 25°C (77°F)
Kinematic viscosity	Not determined or not available.
Explosive properties	No Test Data Available
Oxidizing properties	Not determined or not available.

SECTION 10: Stability and Reactivity

Reactivity:

Not reactive under recommended handling and storage conditions.

Chemical Stability:

Stable under recommended handling and storage conditions.

Possibility of Hazardous Reactions:

Hazardous reactions are not anticipated under recommended conditions of handling and storage. Hazardous polymerization may occur.

Conditions to Avoid:

Keep from any possible contact with water. Extremes of temperature and direct sunlight. Storage near to

reactive materials. Heat, flames and sparks.

Incompatible Materials:

Water. Alcohols. Strong bases. Strong oxidizing agents. Finely powdered metals. Chlorinated compounds. Water. Amines. Copper.

Hazardous Decomposition Products:

Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx). Hydrogen cyanide. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon oxides.

SECTION 11: Toxicological Information

Acute Toxicity

Assessment:

Harmful if inhaled.

Harmful in contact with skin.

Product Data: No data available.

Substance Data:

Name	Route	Result
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	oral	LD50 Rat: 4900 mg/kg
	dermal	LD50 Rabbit: >9400 mg/kg
	Inhalation ATE	LC50 Rat: 11 mg/L (4 hr [vapor])
4,4'-methylenediphenyl diisocyanate	oral	LD50 Rat: > 5000 mg/kg
	inhalation	LC50 Rat: 368 mg/m³ (4 hr [aerosol])
	dermal	LD50 Rabbit: >7940 mg/kg
Diphenylmethane diisocyanate	Inhalation ATE	LC50 Rat: 11 mg/L (4 hr [Vapor})
	oral	LD50 Rat: >2000 mg/kg
Cumene	oral	LD50 Rat: 2700 mg/kg
	dermal	LD50 Rabbit: > 3160 mg/kg
	inhalation	LC50 Rat: 10 mg/L (7 hr [Vapour])
Ethylbenzene	inhalation	LC50 Rat: 17.8 mg/L (4 hr [vapor])
	oral	LD50 Rat: 3500 mg/kg
	dermal	LD50 Rabbit: 15,400 mg/kg
Xylene	Dermal ATE	LD50 Rabbit: 1100 mg/kg
	Inhalation ATE	LC50 Rat: 11 mg/L (4 h [vapor])
	oral	LD50 Rat: 3523 mg/kg
Aluminum powder (stabilized)	oral	LD50 Rat: 15,900 mg/kg
	inhalation	LC50 Rat: >5.09 mg/L (4 hr [Aerosol; read-across])
Polypropylene glycol	oral	LD50 Rat: > 5000 mg/kg
	dermal	LD50 Rabbit: > 3000 mg/kg ([no mortality])
	inhalation	LC50 Rat: > 0.68 mg/L (4 hr [Vapor] [no mortality])

Name	Route	Result
Naphtha (petroleum), hydrodesulfurized heavy	oral	LD50 Rat: > 5000 mg/kg ([Read-across substance data])
	dermal	LD50 Rabbit: >2000 mg/kg ([Read-across substance data])
	inhalation	LC50 Rat: >5.6 mg/L (4 hr [Vapour, Read-across substance data])

Skin Corrosion/Irritation

Assessment:

Causes skin irritation.

Product Data:

No data available.

Substance Data:

Name	Result
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	Causes skin irritation.
4,4'-methylenediphenyl diisocyanate	Causes skin irritation.
Diphenylmethane diisocyanate	Causes skin irritation.
Xylene	Causes skin irritation.

Serious Eye Damage/Irritation

Assessment:

Causes serious eye irritation.

Product Data:

No data available.

Substance Data:

Name	Result
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	Causes serious eye irritation.
4,4'-methylenediphenyl diisocyanate	Causes serious eye irritation.
Diphenylmethane diisocyanate	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
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
	May cause an allergic skin reaction.
4,4'-methylenediphenyl diisocyanate	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
	May cause an allergic skin reaction.
Diphenylmethane diisocyanate	May cause an allergic skin reaction.
	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carcinogenicity

Assessment:

May cause cancer.

Product Data: No data available.

Substance Data:

Name	Species	Result
4,4'-methylenediphenyl diisocyanate		Suspect of causing cancer.
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate		Suspected of causing cancer by inhalation.
Diphenylmethane diisocyanate		Suspected of causing cancer.
Cumene		May cause cancer.
Naphtha (petroleum), hydrodesulfurized heavy		May cause cancer.

International Agency for Research on Cancer (IARC):

Name	Classification
4,4'-methylenediphenyl diisocyanate	Group 3
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	Group 3
Diphenylmethane diisocyanate	Group 3
Cumene	Group 2B
Ethylbenzene	Group 2B

Name	Classification
Xylene	Group 3
Aluminum powder (stabilized)	Not Applicable
Polypropylene glycol	Not Applicable
Naphtha (petroleum), hydrodesulfurized heavy	Group 3

National Toxicology Program (NTP):

Name	Classification
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	Not Applicable
4,4'-methylenediphenyl diisocyanate	Not Applicable
Diphenylmethane diisocyanate	Not Applicable
Cumene	Reasonably anticipated to be human carcinogens
Ethylbenzene	Not Applicable
Xylene	Not Applicable
Aluminum powder (stabilized)	Not Applicable
Polypropylene glycol	Not Applicable
Naphtha (petroleum), hydrodesulfurized heavy	Not Applicable

OSHA Carcinogens: Not applicable

Germ Cell Mutagenicity

Assessment:

May cause genetic defects.

Product Data:

No data available.

Substance Data:

Name	Result
Naphtha (petroleum), hydrodesulfurized heavy	May cause genetic defects.

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:

May cause respiratory irritation.

Product Data:

No data available.

Substance Data:

Name	Result
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	May cause respiratory irritation.
4,4'-methylenediphenyl diisocyanate	May cause respiratory irritation.
Diphenylmethane diisocyanate	May cause respiratory irritation.
Cumene	May cause respiratory irritation.

Specific Target Organ Toxicity (Repeated Exposure)

Assessment:

Causes damage to organs through prolonged or repeated exposure.

Product Data:

No data available.

Substance Data:

Name	Result
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	May cause damage to respiratory system through prolonged or repeated inhalation.
Diphenylmethane diisocyanate	Chronic or repeated exposure may cause an asthma - like allergy. Repeated allergic lung attacks may lead to permanent scarring of the lungs (pulmonary fibrosis) with reduced lung function.
Ethylbenzene	May cause damage to organs (hearing; central nervous system) through prolonged or repeated exposure.
4,4'-methylenediphenyl diisocyanate	May cause damage to the respiratory system and lungs through prolonged or repeated exposure.
Naphtha (petroleum), hydrodesulfurized heavy	Causes damage to the central nervous system through prolonged or repeated exposure.

Aspiration toxicity

Assessment:

May be fatal if swallowed and enters airways.

Product Data:

No data available.

Substance Data:

Name	Result
Cumene	May be fatal if swallowed and enters airways.
Ethylbenzene	May be fatal if swallowed and enters airways.
Naphtha (petroleum), hydrodesulfurized heavy	May be fatal if swallowed and enters airways.

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:

Name	Result
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	Fish LC50 Freshwater Fish: >100 mg/L (96 hr [LL50-Read-across substance data])
	Aquatic Plants EC50 Algae species: >100 mg/L (72 hr [EL50-growth rate, Read-across substance data])
	Aquatic Invertebrates EC50 Aquatic invertebrates: >100 mg/L (48 hr [EL50-mobility, Read-across substance data])
4,4'-methylenediphenyl diisocyanate	Fish LC50 Danio rerio: >100 mg/L (96 hr [mortality])
	Aquatic Invertebrates EC50 Daphnia magna: > 100 mg/L (48 hr [mobility])
	Aquatic Invertebrates EC50 Desmodesmus subspicatus: > 100 mg/L ([EL50] 72 hr [growth rate])
Cumene	Fish LC50 Cyprinodon variegatus: 4.7 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: 2.14 mg/L (48 hr [mobility])
	Aquatic Plants EC50 Desmodesmus subspicatus: 2.01 mg/L (72 hr [growth rate])
Ethylbenzene	Fish LC50 Menidia menidia: 5.1 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: 1.8 - 2.4 mg/L (48 hr [adult length,weight, reproduction,age at first brood release, neonate length and weight])
	Aquatic Plants EC50 Raphidocelis subcapitata: 5.4 mg/L (72 hr [cell number])
Xylene	Fish LC50 Oncorhynchus mykiss: 2.6 mg/L (96 hr [mortality; Read-across substance data])
	Aquatic Plants EC50 Raphidocelis subcapitata: 4.9 mg/L (72 hr [growth inhibition, Read-across substance data])
	Aquatic Invertebrates EC50 Daphnia magna: 3.82 mg/L (48 hr)
Aluminum powder (stabilized)	Fish LC50 Pimephales promelas: > 218.64 mg/L (96 hr)
	Aquatic Invertebrates LC50 Daphnia magna: 1.4 mg/L (48 hr)
Polypropylene glycol	Fish LC50 Danio rerio: >100 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: 105.8 mg/L (48 hr)
	Aquatic Plants EC50 Desmodesmus subspicatus: >100 mg/L (72 hr)

Name	Result
Naphtha (petroleum), hydrodesulfurized heavy	Aquatic Plants EC50 Raphidocelis subcapitata: 3.1 mg/L (72 hr [growth rate-Read-across substance data])
	Aquatic Invertebrates EC50 Daphnia magna: 4.5 mg/L (48 hr [EL50-mobility, Read-across substance data])
	Fish LC50 Pimephales promelas: 8.2 mg/L (96 hr [LL50- Read-across substance data])

Chronic (Long-Term) Toxicity

Assessment:

Toxic to aquatic life with long lasting effects.

Product Data: No data available.

Substance Data:

Name	Result
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	Aquatic Invertebrates NOEC Daphnia magna: >10 mg/L (21 d [reproduction, Read-across substance data])
4,4'-methylenediphenyl diisocyanate	Aquatic Invertebrates NOEC Daphnia magna: ≥10 mg/L (21 d [reproduction; read-across substance data])
Diphenylmethane diisocyanate	Aquatic Invertebrates NOEC Daphnia magna: >10 mg/L (21 d)
Cumene	Fish NOEC Danio rerio and Pimephales promelas: 0.38 mg/L (28 d [QSAR substance data])
	Aquatic Invertebrates NOEC Daphnia magna: 0.35 mg/L (21 d [reproduction and survival of parent animals])
Xylene	Fish NOEC Danio rerio: 0.714 mg/L (35 d [post hatch survival and overall survival Read-across substance data])
	Aquatic Invertebrates NOEC Daphnia magna: 1.57 mg/L (21 d [reproduction, Read-across substance data])
Aluminum powder (stabilized)	Fish EC50 Pimephales promelas: 1.078 mg/L (7 d [biomass])
	Aquatic Invertebrates LC50 Daphnia magna: 1.61 mg/L (28 d)
Polypropylene glycol	Aquatic Invertebrates NOEC Daphnia magna: >= 10 mg/L (21 d [mortality])
Naphtha (petroleum), hydrodesulfurized heavy	Aquatic Invertebrates NOEC Daphnia magna: 2.6 mg/L (21 d [NOELR-reproduction, Read-across substance data])
	Fish NOEC Pimephales promelas: 2.6 mg/L (14 d [NOELR-mortality, Read-across substance data])

Persistence and Degradability

Product Data: No data available.

Substance Data:

Name	Result
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	The substance is not readily biodegradable. 1% degradation in water, measured by O2 consumption, after 28 days (Read-across substance data).
4,4'-methylenediphenyl diisocyanate	The substance is not readily biodegradable. 0% degradation in water, measured by O2 consumption, after 28 days.
Cumene	The substance is readily biodegradable.70% degradation in water, measured by O2 consumption, after 20 days.
Ethylbenzene	The substance is readily biodegradable. 70 - 80% degradation in water, measured by inorganic Carbon analysis, after 28 days.
Xylene	The substance is readily biodegradable .94% degradation in water, measured by O2 consumption, after 28 days (Read-across substance data).
Aluminum powder (stabilized)	Biotic degradation is an irrelevant process for inorganic substances.
Polypropylene glycol	The substance is readily biodegradable. 86.6 % degradation in water, after 28 days.
Naphtha (petroleum), hydrodesulfurized heavy	Standard biodegradability studies are not applicable to UVCB substances.

Bioaccumulative Potential

Product Data: No data available.

Substance Data:

Name	Result
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	Standard bioaccumulation studies are not applicable to UVCB substances.
4,4'-methylenediphenyl diisocyanate	The substance is not expected to bioaccumulate (BCF: 200).
Diphenylmethane diisocyanate	Exposure of carp to 0.00001% concentrations for an eight week period resulted in no bioaccumulations.
Cumene	The substance is not expected to bioaccumulate (BCF: 94.69 L/kg, aquatic species : fish).
Ethylbenzene	The substance is not expected to bioaccumulate (BCF: 110 L/Kg; (Q)SAR substance data).
Xylene	The substance is not expected to bioaccumulate (BCF = 25.9 dimensionless).
Aluminum powder (stabilized)	The available evidence shows the absence of aluminium biomagnification across trophic levels both in the aquatic and terrestrial food chains.
Naphtha (petroleum), hydrodesulfurized heavy	Standard bioaccumulation studies are not applicable to UVCB substances.

Mobility in Soil

Product Data: No data available.

Substance Data:

Name	Result
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	The substance is hardly mobile, therefore, there is a high potential for adsorption to soil and sediment (log Koc: 4.5, Read-across substance data).
4,4'-methylenediphenyl diisocyanate	The substance is hardly mobile, therefore, there is a high potential for adsorption to soil and sediment (Log Koc: 4.5; (Q)SAR substance data).
Diphenylmethane diisocyanate	Hydrolyzes rapidly in aqueous solution.
Cumene	The substance is moderately mobile, therefore, there is moderate potential for adsorption to soil and sediment (log Koc: 2.946).
Ethylbenzene	The substance is slightly mobile, therefore, adsorption to soil and sediment is expected (log Koc = 3.12; (Q)SAR usbstance data).
Xylene	The substance is moderately mobile, therefore, slight adsorption to soil is expected (log Koc=2.73 dimensionless, Read-across substance data).
Polypropylene glycol	The substance is mobile, therefore, there is low potential for adsorption to soil and sediment (Log Koc: < 1.25).
Naphtha (petroleum), hydrodesulfurized heavy	Standard adsorption/desorption studies are not applicable to UVCB substances.

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.
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	Standard PBT studies are not applicable to UVCB substances.
Cumene	The substance is not PBT.
Ethylbenzene	The substance is not PBT.
Xylene	The substance is not PBT.
Aluminum powder (stabilized)	PBT assessment does not apply to inorganic substances.
Polypropylene glycol	The substance is not PBT.
Naphtha (petroleum), hydrodesulfurized heavy	Standard PBT studies are not applicable to UVCB substances.

vPvB assessment:

4,4'-methylenediphenyl diisocyanate	The substance is not vPvB.

Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	Standard vBvB studies are not applicable to UVCB substances.
Cumene	The substance is not vPvB.
Ethylbenzene	The substance is not vPvB.
Xylene	The substance is not vPvB.
Aluminum powder (stabilized)	vPvB assessment does not apply to inorganic substances.
Polypropylene glycol	The substance is not vPvB.
Naphtha (petroleum), hydrodesulfurized heavy	Standard vBvB studies are not applicable to UVCB substances.

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

United States Transportation of Dangerous Goods (49 CFR DOT)

UN Number	Not regulated for transport in non-bulk packagings per 49 CFR 173.150(f)
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None
Additional Information	Not regulated as a hazardous material in non-bulk packaging per 49 CFR 173.150(f), as the material is reclassified as a combustible liquid (flash point ≥38°C). Bulk shipments (≥119 gallons): NA1993, Combustible liquid. Note: This exception applies only to U.S. ground transport. For air and sea transport classifications, see below.

International Maritime Dangerous Goods (IMDG)

UN Number	UN1263
UN Proper Shipping Name	PAINT

UN Transport Hazard Class(es)	3 
Packing Group	III
Environmental Hazards	None
Special Precautions for User	None

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

UN Number	UN1263
UN Proper Shipping Name	PAINT
UN Transport Hazard Class(es)	3 
Packing Group	III
Environmental Hazards	None
Special Precautions for User	None

SECTION 15: Regulatory Information

United States Regulations

Inventory Listing (TSCA): All ingredients are listed-active or exempt.

Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.

Export Notification under TSCA Section 12(b): None of the ingredients are listed.

SARA Section 302 Extremely Hazardous Substances: None of the ingredients are listed.

SARA Section 313 Toxic Chemicals:

9016-87-9	Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	Listed
101-68-8	4,4'-methylenediphenyl diisocyanate	Listed
98-82-8	Cumene	Listed
100-41-4	Ethylbenzene	Listed
1330-20-7	Xylene	Listed
7429-90-5	Aluminum powder (stabilized)	Listed

CERCLA:

101-68-8	4,4'-methylenediphenyl diisocyanate	Listed	5000 lb
98-82-8	Cumene	Listed	5000 lb
100-41-4	Ethylbenzene	Listed	1000 lb
1330-20-7	Xylene	Listed	100 lbs
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	Listed	100 Lbs. for RCRA D001

RCRA:

98-82-8	Cumene	Listed	U055
100-41-4	Ethylbenzene	Listed	F039, D001

1330-20-7	Xylene	Listed	U239
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	Listed	D001

Section 112(r) of the Clean Air Act (CAA):

100-41-4	Ethylbenzene	Listed

Massachusetts Right to Know:

101-68-8	4,4'-methylenediphenyl diisocyanate	Listed
98-82-8	Cumene	Listed
100-41-4	Ethylbenzene	Listed
1330-20-7	Xylene	Listed
7429-90-5	Aluminum powder (stabilized)	Listed
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	Listed

New Jersey Right to Know:

9016-87-9	Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	Listed
101-68-8	4,4'-methylenediphenyl diisocyanate	Listed
26447-40-5	Diphenylmethane diisocyanate	Listed
98-82-8	Cumene	Listed
100-41-4	Ethylbenzene	Listed
1330-20-7	Xylene	Listed
7429-90-5	Aluminum powder (stabilized)	Listed
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	Listed

New York Right to Know:

9016-87-9	Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	Listed
101-68-8	4,4'-methylenediphenyl diisocyanate	Listed
26447-40-5	Diphenylmethane diisocyanate	Listed
98-82-8	Cumene	Listed
100-41-4	Ethylbenzene	Listed
1330-20-7	Xylene	Listed
7429-90-5	Aluminum powder (stabilized)	Listed
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	Listed

Pennsylvania Right to Know:

101-68-8	4,4'-methylenediphenyl diisocyanate	Listed
98-82-8	Cumene	Listed
100-41-4	Ethylbenzene	Listed
1330-20-7	Xylene	Listed
7429-90-5	Aluminum powder (stabilized)	Listed
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	Listed

California Proposition 65:

⚠ **WARNING:** This product can expose you to chemicals including Cumene and Ethyl Benzene which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

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 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. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

NFPA: 2-2-0

HMIS: 2*-2-0

Initial Preparation Date: 06.15.2015

Revision date: 05.20.2026

Revision Notes:

Revision Date	Notes
2015-06-15	
2026-05-18	Internal Review

End of Safety Data Sheet