

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 03.20.2006

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Revision date: 11.03.2025

TuffStuff FR 21-85-15 Resin

SECTION 1: Identification

Product Identifier

Product Name: TuffStuff FR 21-85-15 Resin

Product code: 60055

Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: POLYURETHANE SPRAY ELASTOMER SYSTEM

(Flame Retardant) - Resin 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

1001 Ed Rutherford Road

Greenville, TX 75402

858-450-0441

www.rhinolinings.com

Emergency Telephone Number:

North America

CHEMTREC

800-424-9300 (24/7)

SECTION 2: Hazard(s) Identification

GHS Classification:

Acute toxicity (oral), category 4

Acute toxicity (dermal), category 4

Skin sensitization, category 1

Specific target organ toxicity - repeated exposure, category 1

Chronic aquatic hazard, category 3

Label elements

Hazard Pictograms:



Signal Word: Danger

Hazard statements:

H302 Harmful if swallowed

H312 Harmful in contact with skin

H317 May cause an allergic skin reaction

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H372 Causes damage to organs through prolonged or repeated exposure.

H412 Harmful 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

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

P264 Wash any exposed skin thoroughly with soap and water after handling.

P270 Do not eat, drink or smoke when using this product

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

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

P273 Avoid release to the environment

P301+P312 IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.

P330 Rinse mouth

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

P361+P364 Take off immediately all contaminated clothing and wash it before reuse

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.

P314 Get medical advice or attention if you feel unwell.

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

Hazards Not Otherwise Classified:

This product contains Diethyltoluenediamine (DETDA). This may cause methemoglobin formation resulting in a reduced ability of the blood to carry oxygen; a symptom may include cyanosis. Immediately give oxygen if victim turns blue (lips, ears, fingernails). Since reversion of methemoglobin to hemoglobin occurs spontaneously after termination of exposure, moderate degrees of cyanosis need to be treated only by supportive measures.

SECTION 3: Composition/Information on Ingredients

Identification	Name	Weight %
CAS Number: Proprietary	Polyether Polyol	50-70
CAS Number: 13674-84-5	Tris(2-chloro-1-methylethyl) phosphate	5-15
CAS Number: 111-46-6	(2-hydroxyethoxy) ethan-2-ol	5-15
CAS Number: 1318-02-1	Zeolites	1-5
CAS Number: 68479-98-1	Diethylmethylbenzenediamine	1-3
CAS Number: 26401-97-8	6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	0.1-1
CAS Number: 7631-86-9	Silicon dioxide (amorphous)	0.1-1

Additional Information:

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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 Swallowing:

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:

Acute oral exposure may lead to dizziness, drowsiness, headache, breathing difficulties, nausea, vomiting, abdominal pain, and lowering of consciousness. Adverse effects are dependent on exposure (dose, concentration, contact time).

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

Delayed Symptoms and Effects:

Symptoms of exposure may be delayed.

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:

Not determined or not applicable.

Notes for the Doctor:

Treat symptomatically.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media:

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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 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:

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Country (Legal Basis)	Substance	Identifier	Permissible concentration
WEEL	(2-hydroxyethoxy) ethan-2-ol	111-46-6	8-Hour TWA: 10 mg/m ³
ACGIH	Zeolites	1318-02-1	8-Hour TWA: 1 mg/m ³ (Aluminum metal and insoluble compounds, respirable fraction)
	6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	26401-97-8	8-Hour TWA: 0.1 mg/m ³ (tin, organic compounds, as Sn)
	6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	26401-97-8	15-Minute STEL: 0.2 mg/m ³ (tin, organic compounds, as Sn)
	Silicon dioxide (amorphous)	7631-86-9	8-Hour TWA: 10 mg/m ³ (Particles (insoluble or poorly soluble) not otherwise specified, inhalable)
	Silicon dioxide (amorphous)	7631-86-9	8-Hour TWA: 3 mg/m ³ (Particles (insoluble or poorly soluble) not otherwise specified, respirable)
OSHA	6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	26401-97-8	8-Hour TWA-PEL: 0.1 mg/m ³ (tin, organic compounds, as Sn)
	Silicon dioxide (amorphous)	7631-86-9	8-Hour TWA-PEL: 0.8 mg/m ³
NIOSH	6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	26401-97-8	REL-TWA: 0.1 mg/m ³ (tin, organic compounds, as Sn [up to 10 hr])
	6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	26401-97-8	IDLH: 25 mg/m ³ (tin, organic compounds, as Sn)
	Silicon dioxide (amorphous)	7631-86-9	REL-TWA: 6 mg/m ³ (up to 10 hrs.)
	Silicon dioxide (amorphous)	7631-86-9	IDLH: 3000 mg/m ³
United States(California)	6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	26401-97-8	8-Hour TWA-PEL: 0.1 mg/m ³ (tin, organic compounds, as Sn)
	6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	26401-97-8	15-Minute STEL: 0.2 mg/m ³ (tin, organic compounds, as Sn)
	Silicon dioxide (amorphous)	7631-86-9	8-Hour TWA-PEL: 6 mg/m ³ (total dust)
	Silicon dioxide (amorphous)	7631-86-9	8-Hour TWA-PEL: 3 mg/m ³ (respirable dust)
United States	Silicon dioxide (amorphous)	7631-86-9	8-Hour TWA-PEL: 6 mg/m ³ (precipitated and gel)

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 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

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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	Pale Yell Opaque Liquid
Odor	Slight ammonia-like
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	>200°C (>392°F)
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	MVSS: Does Not Ignite FMV-302: Pass CAL 117: Pass (Uncertified) UL-94: V-O NOTE: Small-scale flammability tests are an indication of behavior; however, they do not necessarily predict performance in a real life situation.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	1.12
Solubilities	Slightly soluble
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.

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Dynamic viscosity	900-1000 CPS
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other Information

SECTION 10: Stability and Reactivity

Reactivity:

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

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.

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. In fire conditions, decomposition depends upon temperature, air supply and the presence of other materials. Can include, but are not limited to carbon and nitrogen oxides, amines, hydrogen cyanide, lower molecular weight organic molecules, aluminum oxides.

SECTION 11: Toxicological Information

Acute Toxicity

Assessment:

Harmful if swallowed.

Harmful in contact with skin.

Product Data: No data available.

Substance Data:

Name	Route	Result
(2-hydroxyethoxy) ethan-2-ol	dermal	LD50 Rabbit: 13300 mg/kg
	inhalation	LC50 Rat: >4.6 mg/L (4 hr [Aerosol])
	Oral ATE	LD50 Rat: 500 mg/kg
Zeolites	inhalation	LC50 Rat: >3.35 mg/L (4 hr [dust])
	oral	LD50 Rat: >5110 mg/kg
	dermal	LD50 Rabbit: >2000 mg/kg
Diethylmethylbenzenediamine	oral	LD50 Rat: 738 mg/kg
	Dermal ATE	LD50 Rabbit: 1100 mg/kg
	inhalation	LC50 Rat: > 0.6125 mg/L (4 hr [aerosol])

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Name	Route	Result
6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	oral	LD50 Rat: 1800 mg/kg
	dermal	LD50 Rat: >2000 mg/kg
Tris(2-chloro-1-methylethyl) phosphate	oral	LD50 Rat: 1011 mg/kg
	dermal	LD50 Rabbit: > 2000 mg/kg
	inhalation	LC50 Rat: >7 mg/L (4 hr [vapor])
Silicon dioxide (amorphous)	oral	LD50 Rat: > 5000 mg/kg
	dermal	LD50 Rabbit: > 2000 mg/kg
	inhalation	LC50 Rat: > 5.01 mg/L (4hr [Aerosol])

Skin Corrosion/Irritation

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

Product Data:

No data available.

Substance Data: No data available.

Serious Eye Damage/Irritation

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

Product Data:

No data available.

Substance Data:

Name	Result
Diethylmethylbenzenediamine	Causes serious eye irritation
6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	Causes serious eye irritation.

Respiratory or Skin Sensitization

Assessment:

May cause an allergic skin reaction.

Product Data:

No data available.

Substance Data:

Name	Result
6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	May cause an allergic skin reaction.

Carcinogenicity

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

Product Data: No data available.

Substance Data: No data available.

International Agency for Research on Cancer (IARC):

Name	Classification
(2-hydroxyethoxy) ethan-2-ol	Not Applicable

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Name	Classification
Zeolites	Group 3
6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	Not Applicable
Diethylmethylbenzenediamine	Not Applicable
Tris(2-chloro-1-methylethyl) phosphate	Not Applicable
Silicon dioxide (amorphous)	Group 3

National Toxicology Program (NTP):

Name	Classification
(2-hydroxyethoxy) ethan-2-ol	Not Applicable
Zeolites	Not Applicable
6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	Not Applicable
Diethylmethylbenzenediamine	Not Applicable
Tris(2-chloro-1-methylethyl) phosphate	Not Applicable
Silicon dioxide (amorphous)	Not Applicable

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

Product Data:

No data available.

Substance Data: No data available.

Specific Target Organ Toxicity (Repeated Exposure)

Assessment:

Causes damage to organs through prolonged or repeated exposure.

Product Data:

No data available.

Substance Data:

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Name	Result
Diethylmethylbenzenediamine	May causes damage to organs through prolonged or repeated exposure.
6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	Causes damage to the thymus through prolonged or repeated oral 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:

Name	Result
(2-hydroxyethoxy) ethan-2-ol	Fish LC50 Pimephales promelas: 75,222 mg/L (96 hr [mortality])
	Aquatic Invertebrates EC50 Daphnia magna: > 100 mg/L (48 hr)
	Aquatic Plants EC50 Raphidocelis subcapitata: > 6500 - < 13000 mg/L (72 hr [growth rate; read-across substance data])
Diethylmethylbenzenediamine	Fish LC50 Pimephales promelas: >106 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: >0.3 mg/L (48 hr [mobility])
	Aquatic Plants ErC50 Algae: 104 mg/L (72 hr [growth rate])
6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	Fish LC50 Danio rerio: > 24.8 mg/L (96 hr [mortality])
	Aquatic Invertebrates EC50 Daphnia magna: 24.12 mg/L (48 hr [mobility])
	Aquatic Plants EC50 Raphidocelis subcapitata: > 100 mg/L (72 hr [growth rate])
Tris(2-chloro-1-methylethyl) phosphate	Fish LC50 Pimephales promelas: 51 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: 131 mg/L (48 hr [mobility])
	Aquatic Plants ErC50 Pseudokirchneriella subcapitata: 82 mg/L (72 hr [growth rate])
Zeolites	Aquatic Invertebrates EC50 Daphnia magna: > 1000 mg/L (48hr [mobility])
	Aquatic Plants EC50 Desmodesmus subspicatus: > 1000 mg/L (72hr [growth rate])

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Name	Result
Silicon dioxide (amorphous)	Fish LC50 Pimephales promelas: > 5000 mg/L (96 hr [mortality])
	Aquatic Invertebrates EC50 Daphnia magna: > 5000 mg/L (48 hr [mobility])
	Aquatic Plants EC50 Desmodemus subspicatus: >173.1 mg/L (72 hr [growth rate])

Chronic (Long-Term) Toxicity

Assessment:

Harmful to aquatic life with long lasting effects.

Product Data: No data available.

Substance Data:

Name	Result
(2-hydroxyethoxy) ethan-2-ol	Aquatic Plants NOEC Raphidocelis subcapitata: > 100 mg/L (72 hr [growth rate])
	Aquatic Invertebrates NOEC Daphnia magna: 7500 - 15000 mg/L (21 d [growth])
Tris(2-chloro-1-methylethyl) phosphate	Aquatic Invertebrates NOEC Daphnia magna: 32 mg/L (21 d [mortality])
Zeolites	Fish NOEC Pimephales promelas: >= 86.7 mg/L (30d)
	Aquatic Invertebrates NOEC Daphnia magna: 130.8 mg/L (21d [Reproduction])
Silicon dioxide (amorphous)	Aquatic Invertebrates NOEC Daphnia magna: 68 mg/L (21 d [mortality])
	Aquatic Plants NOEC Desmodemus subspicatus: 173.1 mg/L (72 hr [growth rate])

Persistence and Degradability

Product Data: No data available.

Substance Data:

Name	Result
(2-hydroxyethoxy) ethan-2-ol	The substance is readily biodegradable. 102 % degradation in water, measured by DOC removal, after 28 days.
Zeolites	Persistence assessment based on biodegradability is not relevant for inorganic compounds such as this substance.
6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	The substance is not readily biodegradable. 30 - 40% degradation in water, measured by BOD/THOD, after 28 days.
Tris(2-chloro-1-methylethyl) phosphate	The substance is not biodegradable. 0% degradation in water, measured by DOC removal, after 28 days.
Silicon dioxide (amorphous)	Persistence assessment based on biodegradability is not relevant for inorganic compounds such as this substance.

Bioaccumulative Potential

Product Data: No data available.

Substance Data:

Name	Result
Zeolites	Bioaccumulation assessment using a classic BCF assessment is not considered relevant for inorganic compounds such as this substance.

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Name	Result
6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	Substance is not expected to bioaccumulate (BCF: 99 dimensionless).
(2-hydroxyethoxy) ethan-2-ol	The substance is not expected to bioaccumulate (log Kow= -1.98 at 25 °C).
Diethylmethylbenzenediamine	The substance is not expected to bioaccumulate (BCF: 3.78 L/kg wet wt, QSAR substance data).
Tris(2-chloro-1-methylethyl) phosphate	The substance is not expected to bioaccumulate (BCF: >= 0.8 - <= 2.8).
Silicon dioxide (amorphous)	The substance is not expected to bioaccumulate (BCF: 3.162 L/Kg).

Mobility in Soil

Product Data: No data available.

Substance Data:

Name	Result
Zeolites	Mobility in soil assessment based on KOC/Kd values are not relevant for inorganic compounds such as this substance.
(2-hydroxyethoxy) ethan-2-ol	Mobility in soil assessment does not need to be conducted due to low octanol water partition coefficient.
6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	The substance is immobile, therefore, there is a significant potential for adsorption to soil and sediment (Koc: 1925000000 L/Kg).
Diethylmethylbenzenediamine	The substance is mobile, therefore, there is low potential for adsorption to soil and sediment (log Koc: 1.645, QSAR substance data).
Tris(2-chloro-1-methylethyl) phosphate	The substance is moderately mobile, therefore, there is moderate potential for adsorption to soil and sediment (log Koc: 2.24, Read-across substance data).
Silicon dioxide (amorphous)	The substance is mobile, therefore, there is low potential for adsorption to soil and sediment (log Koc: 1.3370).

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:

(2-hydroxyethoxy) ethan-2-ol	The substance is not PBT.
Zeolites	PBT assessment does not apply to inorganic compounds such as this substance.
Diethylmethylbenzenediamine	The substance is not PBT.
6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	The substance is not PBT.
Tris(2-chloro-1-methylethyl) phosphate	The substance is not PBT.
Silicon dioxide (amorphous)	The substance is not PBT.

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vPvB assessment:

(2-hydroxyethoxy) ethan-2-ol	The substance is not vPvB.
Zeolites	vPvB assessment does not apply to inorganic compounds such as this substance.
Diethylmethylbenzenediamine	The substance is not vPvB.
6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	The substance is not vPvB.
Tris(2-chloro-1-methylethyl) phosphate	The substance is not vPvB.
Silicon dioxide (amorphous)	The 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

United States Transportation of Dangerous Goods (49 CFR DOT)

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 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
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UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

SECTION 15: Regulatory Information

United States Regulations

Inventory Listing (TSCA):

111-46-6	(2-hydroxyethoxy) ethan-2-ol	Listed - Active
1318-02-1	Zeolites	Not Listed
26401-97-8	6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	Listed - Active
68479-98-1	Diethylmethylbenzenediamine	Listed - Active
13674-84-5	Tris(2-chloro-1-methylethyl) phosphate	Listed - Active
7631-86-9	Silicon dioxide (amorphous)	Listed - Active

Significant New Use Rule (TSCA Section 5):

111-46-6	(2-hydroxyethoxy) ethan-2-ol	Not Listed
1318-02-1	Zeolites	Not Listed
26401-97-8	6-methylheptyl 14-methyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannapentadecan-1-oate	Not Listed
68479-98-1	Diethylmethylbenzenediamine	Listed
13674-84-5	Tris(2-chloro-1-methylethyl) phosphate	Not Listed
7631-86-9	Silicon dioxide (amorphous)	Not 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:

111-46-6	(2-hydroxyethoxy) ethan-2-ol	Listed
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CERCLA:

111-46-6	(2-hydroxyethoxy) ethan-2-ol	Listed	
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RCRA: None of the ingredients are listed.

Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know:

7631-86-9	Silicon dioxide (amorphous)	Listed
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New Jersey Right to Know:

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7631-86-9	Silicon dioxide (amorphous)	Listed
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New York Right to Know: None of the ingredients are listed.

Pennsylvania Right to Know:

111-46-6	(2-hydroxyethoxy) ethan-2-ol	Listed
7631-86-9	Silicon dioxide (amorphous)	Listed

California Proposition 65: 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 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: 2-1-0

HMIS: 2*-1-0

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Revision Notes:

Revision Date	Notes
2006-03-20	
2009-04-09	Internal Reivew
2012-05-08	Internal Reivew
2014-04-28	Internal Review
2016-07-26	Internal Review
2021-11-01	Internal Review
2025-11-03	Internal Review

End of Safety Data Sheet