

**PRODUCT NAME(S): TuffGrip<sup>®</sup> 21-90 – Cured Polymer**

**SECTION 1 – IDENTIFICATION**

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

**Product name:** TuffGrip<sup>®</sup> 21-90 – Cured Polymer  
**Chemical Family:** Thermoset Polymers  
**Product Category:** Elastomers

**Information phone:** (858) 450 0441  
**Emergency contact:** CHEMTREC (800) 424 9300

**SECTION 2 – HAZARD(S) IDENTIFICATION**

**OSHA Hazard Communication Standard:**

Polyurethane, hybrid and polyurea elastomers are fully reacted polymers forming articles and therefore not considered hazardous under normal use as defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**GHS-Label Elements:**    **Signal Word:**                **Pictogram(s):**  
   None    None

**Classification of the substance or mixture:**        Not classified

**Hazard statement(s):** Product does not meet the criteria for classification.

**Precautionary Statements:**

**Prevention:**        Observe good industrial hygiene practices.  
**Response:**         Wash hands after handling.  
**Storage:**           Store away from incompatible materials.  
**Disposal:**         Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazards not otherwise classified:** Like most high-molecular weight polymers, this product is considered to be inert and not known to exhibit any adverse acute or chronic health effects. Under normal conditions of processing and use, exposure to the chemical components of these products is unlikely, since all have been reacted, tightly bound in a polymeric matrix and no longer present in their original form. Product may contain substances that could be potential hazards if caused to become airborne due to grinding, sanding or cutting or during thermal decomposition.

**SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS**

<b>Components</b>	<b>CAS #</b>	<b>EC #</b>	<b>Concentration, %</b>
Polyurethane Elastomer Polyurethane/Polyurea Hybrid Elastomer or Polyurea Elastomer	Not available	Not available	100

**SECTION 4 – FIRST-AID MEASURES**

**Description of First Aid measures:**

**Inhalation:**        No adverse effects are anticipated under normal conditions of use.  
                                 Inhalation of fine dust particles produced during cutting, grinding or sanding and vapors released at high temperatures may cause respiratory tract irritation and coughing. If irritation occurs, remove affected personnel from the work area to fresh air. Obtain medical attention if irritation persists.

**Skin:**                No adverse effects are anticipated under normal conditions of use.  
                                 Contact with hot polymer may cause thermal burns which may result in permanent damage. Immerse skin in cool water. DO NOT attempt to remove polymer from skin as this can cause further damage. Get immediate medical attention.

**Eye:**                No adverse effects are anticipated under normal conditions of use.  
                                 Contact with hot polymer can cause thermal burns which may result in permanent damage.  
                                 Cutting, grinding and sanding of this product may generate dust. Rinse cautiously with water for several minutes, especially under the eyelids. Remove contact lenses, if present and easy to do. Do not rub eyes in order to prevent corneal injury. Get medical advice/attention if eye irritation persists.

**Ingestion:**         No adverse effects are anticipated under normal conditions of use.

**Most important symptoms/effects, acute and delayed:** See Section 11 for more details.

**General advice for First Aid responders:** Show this SDS to physician.

**Note to physician:** Treatment should be supportive and based on the judgment of the physician in response to the reaction of the patient.

**SECTION 5 – FIRE-FIGHTING MEASURES**

**Suitable extinguishing media:** Water fog or fine spray, alcohol-resistant foam, dry chemical or carbon dioxide fire extinguishers to quench smoldering elastomers. Choice of fire-extinguishing media will depend on surrounding materials.

**Unsuitable extinguishing media:** Not known.

**Specific hazards arising from the chemical:** Material may be ignited only if preheated to high temperatures (such in fire conditions). Burning or exposing product to temperatures above 300°C may result in melting and the release of intense heat, dense smoke and irritating/toxic fumes which may cause respiratory irritation with difficulty in breathing, shortness of breath, coughing and wheezing. Extremely high fume concentrations may reduce the ability of the blood to carry oxygen to the body, affect the lungs and central nervous system and cause collapse. Symptoms may be delayed and progressively worsen. Prompt medical attention is required if decomposition products are inhaled. Hazardous combustion products: carbon and nitrogen oxides, amines, hydrogen cyanide, lower molecular weight organic molecules, polymer fractions.

**Special Protective Equipment and Precautions for fire-fighters:** Wear NIOSH or OSHA approved self-contained breathing apparatus in positive pressure mode with full face piece and full protective gear. Do not remove self-contained breathing apparatus until smoke is gone and area is completely ventilated with clean air. Isolate the scene by removing all persons from the incident area. No action should be taken involving any personal risk or without suitable training.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures:** No adverse effects are anticipated under normal conditions of use. Caution is recommended when handling hot product or large pieces such as sheets or metal backed product.

**Environmental precautions:** Do not dispose into environment.

**Methods and materials for containment and cleaning up:** Remove mechanically.

**SECTION 7 – HANDLING AND STORAGE**

**Precautions for safe handling:** Wear appropriate eye, skin and respiratory protection if handling hot or molten product or in operations where dust is produced (cutting, grinding or sanding). Do not breathe fumes produced at elevated temperatures. Keep away from sources of ignition. Periodically clean work and storage areas to prevent dust accumulation.

**Conditions for safe storage, including any incompatibilities:** Stable under normal conditions. Store away from heat, sparks, flame or other ignition sources.

See Section 8 for additional information on hygiene measures.

**SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Control Parameters/Occupational exposure limit values:** Not applicable.

**Appropriate engineering controls:** Exposure to cured product does not require ventilation. Good general ventilation should be sufficient to control worker exposure to airborne contaminants below recommended exposure limits during mechanical processing. Local exhaust may be required in some areas.

**Personal protective equipment:**

**Eye/face protection:**

Eye protection (safety glasses, face shield) is recommended if contact with hot material and dust may occur. Contact lenses should not be worn during mechanical or thermal processing.

**Skin/body protection:**

No protection is necessary during normal course of use. If material is hot, wear heat resistant gloves to protect against thermal burns.

**Respiratory protection:**

No protection is necessary during normal course of use. Use either an atmosphere supplying respirator or NIOSH or OSHA approved air-purifying respirator for organic vapors while cutting, grinding and sanding or handling hot product.

**Additional Protective Measures:** As a general hygiene practice, wash hands and face after use and before eating, drinking, and/or smoking.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Solid, rubbery like material.
<b>Odor:</b>	None
<b>Odor threshold:</b>	Not available
<b>pH:</b>	Not applicable
<b>Melting point/ freezing point:</b>	Not available

<b>Initial boiling point and boiling range:</b>	Not applicable
<b>Flash point:</b>	Not applicable
<b>Evaporation rate:</b>	Not applicable
<b>Flammability (solid, gas):</b>	Not applicable
<b>Upper/ lower flammability or explosive limits:</b>	Not applicable
<b>Vapor pressure:</b>	Not applicable
<b>Vapor density:</b>	Not applicable
<b>Relative density:</b>	1.05-1.25 @ 25°C (77°F)
<b>Solubility (water):</b>	Insoluble
<b>Partition coefficient n-octanol/water:</b>	Not available
<b>Auto-ignition temperature:</b>	>250°C
<b>Decomposition temperature:</b>	Not available
<b>Viscosity:</b>	Not applicable

### SECTION 10 – STABILITY AND REACTIVITY

**Reactivity:** The product is fully polymerized and will not undergo hazardous polymerization. It is not corrosive to metals.

**Chemical stability:** Stable under normal handling and storage conditions.

**Conditions to avoid:** Excessive heat, open flame and sparks.

**Incompatible materials:** Strong oxidizing and reducing agents (strong acids and bases).

**Hazardous decomposition products:** Depend upon temperature, air supply and presence of other materials. Can include, but are not limited to carbon and nitrogen oxides, amines, hydrogen cyanide, lower molecular weight organic molecules, polymer fractions.

### SECTION 11 – TOXICOLOGICAL INFORMATION

**Likely Routes of Exposure:** Skin and Eye Contact, Inhalation and Ingestion.

**Symptoms of exposure:**

**Acute toxicity:**

**Oral:** No adverse effects are expected.

**Dermal:** No adverse effects are expected.

**Inhalation:** No adverse effects are expected. Grinding, sanding and cutting may generate dust which may irritate respiratory system and cause coughing.

**Skin corrosion / irritation:**

No adverse effects are expected. Contact with hot material can cause thermal burns which may result in permanent damage.

**Serious eye damage / eye irritation:**

No adverse effects are expected. Contact with hot material can cause thermal burns which may result in permanent damage.

Grinding, sanding and cutting may generate dust which may irritate the eyes.

**Specific target organ toxicity, single exposure:**

No adverse effects are expected.

**Aspiration hazard:**

Not an aspiration hazard.

**Chronic toxicity:**

**Respiratory and Skin Sensitizer:**

No adverse effects are expected. Not known or reported to cause sensitizing effect.

**Germ cell mutagenicity:**

No adverse effects are expected. Not known or reported to cause genetic changes.

**Carcinogenicity:**

No adverse effects are expected. Not considered to be a carcinogen by IARC, NTP, OSHA or ACGIH.

**Reproductive toxicity:**

No adverse effects are expected. Not known or reported to cause reproductive toxicity.

**Specific target organ toxicity, repeated exposure:**

No adverse effects are expected under normal conditions of use and if safety precautions are taken while mechanically or thermally processing the product. Animal studies indicate that chronic inhalation or overexposure to dust may cause inflammation of the lungs, fibrosis and airway destruction. Protective equipment should be used if grinding, sanding, cutting or heating the product.

**Medical conditions aggravated by overexposure:** No adverse effects are expected under normal conditions of use and if safety precautions are taken while mechanically or thermally processing the product.

**Toxicity test results:** Not available. There is no toxicology information available for this product.

**SECTION 12 – ECOLOGICAL INFORMATION**

**Ecotoxicity:** The product is not acutely or chronically harmful to aquatic organisms.

**Persistence and degradability:** Not readily biodegradable.

**Bioaccumulative potential:** Not data available.

**Mobility in soil:** The product is considered inert, no dangerous diffusion is expected. The product is insoluble in water.

**Other adverse effects:** Not expected (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential).

**Ecotoxicity test results:** Not available.

**SECTION 13 – DISPOSAL CONSIDERATIONS**

**Product Disposal:** The generation of waste should be avoided or minimized wherever possible. If product becomes a waste, it does not meet criteria of hazardous waste as defined in 40 CFR 261, Subpart C and D. Do not discharge into sewer system. Dispose waste in compliance with local, state and federal regulations by incineration or controlled deposit on a landfill. Be aware of combustion products that may be produced during incineration.

**Container disposal:** Not applicable.

**SECTION 14 – TRANSPORT INFORMATION**

**Land transport, U.S. DOT:** Non-regulated

**Sea transport, IMDG:** Non-regulated

**Air transport, IATA/ICAO:** Non-regulated

**Special Precautions:** None.

**SECTION 15 – REGULATORY INFORMATION**

**U.S. Regulations:**

**OSHA HCS:** This product is not considered to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Regulations:**

All components of this product are listed or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

**EPCRA Section 302 (40 CFR Part 355)** (Emergency Response Planning, Extremely Hazardous Substance):

Not subject to the reporting.

**EPCRA Section 304 (40 CFR Part 355)** (Emergency Release Notification Requirements):

Not subject to the reporting.

**EPCRA Sections 311 & 312** (Hazardous Chemical Inventory Reporting, Hazard Categories):

None

**EPCRA Section 313 (40 CFR Part 372)** (Toxic Chemical Release Inventory Reporting):

Not subject to the reporting.

**CERCLA Sections 102-103 (40 CFR Part 302)** (Hazardous Substances Release Notification):

Not subject to the reporting.

**Clean Air Act:**

- Ozone Depleting Substances (ODS): This product does not contain and is not manufactured with ozone depleting substances.
- Hazardous Air Pollutants, OSHA, Section 112(b), Table Z-1 and Table Z-3: Product itself is not HAP. However, it may contain components/impurities that in their original form are HAP and could be possibly detected during mechanical processing.

**Clean Water Act:**

Section 307(a): Not subject to the reporting.

**NFPA rating:** Health: 0 Fire: 1 Reactivity: 0 Special: 0

**HMIS rating:** Health: 0 Flammability: 1 Physical hazard: 0

**State Regulations:**

California Prop. 65 Components:

The final product is not considered to be carcinogenic. However, it does contain chemicals/impurities known to State of California to cause cancer, birth defects, or other reproductive harm.

Carbon Black (airborne, unbound particles of respirable size), CAS #: 1333-86-4; Date listed: February 21, 2003

- causes cancer

Under normal conditions of processing and use, exposure to the chemical components of this product is unlikely, since all have been reacted, tightly bound in a polymeric matrix and no longer present in their original form.

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

**International Regulations/Inventories:**

Canadian Regulations: All ingredients of this product are listed or are exempt from the DSL.

WHMIS Classification (Controlled Products Regulations): Non-controlled.

WHMIS Label Information: None

**SECTION 16 – OTHER INFORMATION**

**LEGEND**

GHS	Globally Harmonized System
CAS	Chemical Abstracts Services
EC	European Community
EPA	Environmental Protection Agency
OSHA	Occupational Safety and Health Administration
ACGIH	American Conference of Governmental Industrial Hygienists
NIOSH	National Institute of Occupational Safety and Health
PEL	Permissible Exposure Limits
TLV	Threshold Limit Value
REL	Recommended Exposure Limit
TWA	Time-Weighted Average
STEL	Short-term exposure limit
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
DOT	Department of Transportation
IMDG	International maritime dangerous goods code
IATA, ICAO	International Air Transport Association, International Civil Aviation Organization
EPCRA	Emergency Planning and Community Right-to-Know Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
DSL	Domestic Substance List
WHMIS	Workplace Hazardous Materials Information System

**Latest revision date:** March 21, 2016

**Date of the previous revision:** Not available

**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.