

PRODUCT NAME(S): Rhino Pro Flush
SECTION 1 – IDENTIFICATION

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

Product Name: Rhino Pro Flush

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

SECTION 2 – HAZARD(S) IDENTIFICATION
OSHA Hazard Communication Standard:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

GHS-Label Elements:

Signal Word:
 WARNING

Pictogram(s):



GHS 07

Classification of the substance or mixture:

Hazard Class	Category	Hazard Statement Codes	Hazard Statements
Serious Eye Damage/Eye Irritation	2A	H319	Causes serious eye irritation

Precautionary Statements:

Prevention:	P201 P202 P264 P280	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash exposed area with plenty of water and soap thoroughly after handling. Wear eye protection, face protection.
Response:	P305+P351+P338 P337+P313 P308+P313	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention.
Storage:	P403+P233 P405	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal:	P501	Dispose of contents/container to hazardous or special waste collection point in accordance with local, regional, national, international regulations.

Hazards not otherwise classified (HNOC): No other known hazards.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS #	EC #	Concentration, %
Propylene carbonate	108-32-7	203-572-1	< = 100

SECTION 4 – FIRST-AID MEASURES**Description of First Aid measures:**

Inhalation: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Get medical advice/attention.

Skin: Wash material off of the skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes immediately and wash them before reuse. Get medical advice/attention if irritation persists.

Eye: Immediately rinse with water for several minutes, especially under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Get medical advice/attention if eye irritation persists.

Ingestion: If large quantity swallowed, give lukewarm water (pint/ 1/2 liter) if victim completely conscious/alert. Do not induce vomiting unless directed by medical personnel. If vomiting does occur, have victim lean forward to reduce risk of aspiration. Get medical attention immediately. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

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: Specific antidotes or neutralizers do not exist. Treatment should be supportive and based on the judgment of the physician in response to the reaction of the patient. Recommended medical monitoring for at least 24 hours.

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: Direct water stream may cause frothing, splattering of burning material and spreading of fire.

Specific hazards arising from the chemical: Carbon oxides. Combustible liquid.

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. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Keep unnecessary personnel away. Ensure adequate ventilation/exhaust extraction. Avoid breathing vapors or mist during clean up. Eliminate all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Use protective equipment as described in Section 8. Do not touch or walk through spilled material; spilled material may cause a slipping hazard.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Inform the relevant authorities if the product has caused environmental pollution. See Section 12 for more details.

Methods and materials for containment and cleaning up: Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, see Section 1 for the Emergency contact; for further disposal measures, see Section 13.

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Avoid inhalation of vapor or mist. Wear respiratory protection if material is heated or used in a confined space. Wash hands thoroughly after handling. Hands and/or face should be washed before eating, drinking and smoking and at the end of the shift. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Moisture sensitive.

Storage stability: Stable under normal conditions.

Storage temperature: 60 - 90°F (15.5 - 32°C)

Storage class (TRGS 510): 10

Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200. Employees and consumers should be warned of health risks associated with product use. See Section 8 for additional information on hygiene measures.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters/Occupational exposure limit values: No components are listed in the OSHA Occupational Chemical and/or OARS-WEEL Database.

Appropriate engineering controls: Use only with adequate ventilation. Provide process enclosures, local exhaust ventilation or other engineering controls to maintain recommended PEL. All equipment must conform to applicable electrical code. Use clean non-sparking tools.

Personal protective equipment:

Eye/face protection:

When directly handling liquid product, eye protection is required. Examples of eye protection include safety glasses and goggles. Contact lenses should not be worn when working with chemicals.

Skin/body protection:

Butyl rubber, fluoroelastomer, neoprene, or latex gloves are recommended.

Body should be covered with appropriate clothing (apron, arm covers or full body suit) depending on the task being performed and the risks involved. Appropriate footwear should be also selected based on the task being performed and the risks involved.

Respiratory protection:

Use local or general ventilation to control exposures below applicable exposure limits. When ventilation is inadequate, use either an atmosphere supplying respirator or NIOSH or OSHA approved air-purifying respirator that is recommended for use in solvent-containing areas. Respirator must be properly fitted and its selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Additional Protective Measures: Educate and train employees in safe handling of this product. Follow all label instructions. As a general hygiene practice, wash hands and face after use. Clean water should always be readily available for emergency skin and eye washing. Emergency eyewash fountains and safety shower are recommended in close proximity as a matter of good work practice.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Transparent Liquid
Odor:	Slight, characteristic
Odor threshold:	Not available
pH:	Not available
Melting point/ freezing point:	-55°C (-67°F)
Initial boiling point and boiling range:	241-243°C (466-469°F)
Flash point:	132°C (270°F)
Evaporation rate:	<0.01
Flammability (solid, gas):	Not available
Upper/ lower flammability or explosive limits:	21-32.5%(V) / 1.7-4.7%(V)
Vapor pressure:	0.17 hPa at 20°C (68°F)
Vapor density:	Not available
Relative density:	Not available
Solubility (water):	Soluble
Partition coefficient n-octanol/water:	log Pow: -0.48-0.4 @ 20°C (68°F)
Auto-ignition temperature:	435°C (815°F) DIN 51794
Decomposition temperature:	350°C (662°F)
Viscosity:	Not available

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: Product will not undergo hazardous polymerization.

Chemical stability: Stable under recommended storage conditions.

Conditions to avoid: Excessive heat (temperatures exciding the flash point), open flame and sparks, mist formation.

Product can decompose at the boiling temperature at normal pressure, possibly leading to an explosion. The decomposition is catalyzed by acids and bases and therefore can be relevant at even lower temperatures.

Incompatible materials: Strong oxidizing and reducing agents, alkali metals: organic and mineral acids, acyl halides, halogenated compounds, metal nitrides, methyl bromide, sodium hydride, zinc, steel (in the presence of water).

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

SECTION 11 – TOXICOLOGICAL INFORMATION

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

Symptoms of exposure:

Acute Toxicity:**Oral:**

Not classified.

May be harmful if swallowed. Adverse symptoms may include abdominal pain, nausea and diarrhea.

Dermal:

Not classified.

May cause dryness and redness.

Inhalation:

Not classified.

Skin corrosion / irritation:

Not classified.

Adverse symptoms may include redness, defatting, dryness, cracking, rash and dermatitis.

Serious eye damage / eye irritation:

May cause serious eye irritation.

Adverse symptoms may include blurry vision, stinging, tearing and redness.

Specific target organ toxicity, single exposure:

Not classified.

Aspiration hazard:

Not classified.

Chronic Toxicity:**Respiratory and Skin Sensitizer:**

Not classified.

Germ cell mutagenicity:

Not classified.

Carcinogenicity:

Not classified.

Reproductive toxicity:

Not classified.

Specific target organ toxicity, repeated exposure:

Not classified.

Medical conditions aggravated by overexposure:

No data available.

Toxicity test results:

This product itself has not been tested. Information given is based on data on the components and the toxicology of similar products.

Components	Test Results
Propylene carbonate, CAS #: 108-32-7	<u>Acute Toxicity</u> Oral LD50 (Rat): >5,000 mg/kg Dermal LD50(Rabbit): >2,000 mg/kg; (Rat), OECD test guideline 402 Inhalation LC50 (Rat): No data available Skin corrosion/irritation (Rabbit): No irritation, In vivo 24 h Serious eye damage/eye irritation (Rabbit): Causes serious eye irritation. Aspiration hazard: No data available <u>Chronic Toxicity</u> Carcinogenicity: Not classified. No adverse effects observed. Germ cell mutagenicity: Not classified. No adverse effects observed. Reproductive toxicity: Not classified. No study available. Target organ systemic toxicant-single exposure: Based on single exposure toxicity values, not classified. Target organ systemic toxicant-repeated exposure: Based on repeated exposure toxicity values, not classified. Aspiration hazard: Based on physico-chemical values or lack of human evidence, not classified. STOT-SE: Not classified. STOT-RE: Not classified. Additional Information: RTECS: FF9650000 - Nausea, Headache, Vomiting, Central nervous system depression, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

The products in question have been evaluated against the Hazardous Products Regulations (WHMIS 2015) and no additional classifications, ingredient disclosure or exposure limits are required for those regulations.

SECTION 12 – ECOLOGICAL INFORMATION**Ecotoxicity:**

Not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability:

Readily biodegradable by OECD criteria.

Bioaccumulative potential:

Not known.

Mobility in soil:

Not known.

Other adverse effects:

Not known.

Toxicity test results:

This product itself has not been tested. Information given is based on data on the components and the toxicology of similar products.

Components	Test Results
Propylene carbonate, CAS #: 108-32-7	<u>Acute Toxicity</u> Fish (Cyprinus carpio (Carp)), 96hrs: LC50: >1,000 mg/L, semi-static test Aquatic invertebrates (Daphnia magna), 48hrs: EC50: >1,000 mg/L, static test Aquatic plants (green algae), 72hrs: EC50: 900 mg/l, endpoint: Biomass, static test <u>Ecological Data</u> Biodegradation, 28 days: >83% - rapidly biodegradable (after 29 days in a ready biodegradability test). Bioaccumulation: Bioconcentration factor (BCF): 3.16, this material is not expected to bioaccumulate. Mobility in soil: Stable in soil, low absorption to soil particulates predicted.

SECTION 13 – DISPOSAL CONSIDERATIONS

Product Disposal: The generation of waste should be avoided or minimized wherever possible. Do not discharge into sewer system. Bacterial decomposition during wastewater treatment can result in the release of dimethyl sulfide (a volatile substance with a strong offensive odor). Spill cleanup residues may be subject to RCRA storage and disposal requirements. Dispose waste in compliance with local, state and federal regulations via licensed waste disposal contractor. Preferred method of disposal is burning in a chemical incinerator equipped with an afterburner and scrubber.

Container disposal: Even after emptying, container may retain residues. Do not heat or cut empty container with electric or gas torch since highly toxic vapors and gases can be formed. Empty containers should be completely drained and safely stored until appropriately reconditioned or disposed through licensed contractor in accordance with government regulations. This material and its container must be disposed of in a safe way.

SECTION 14 – TRANSPORT INFORMATION**DOT**

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

BULK TRANSPORT

according to Annex II or MARPOL 73/78 and IBC Code

No data available.

SECTION 15 – REGULATORY INFORMATION
U.S. FEDERAL REGULATIONS:
U.S. Toxic Substances Control Act:

None present or none present in regulated quantities.

US. EPA CERCLA Hazardous Substances (40 CFR 302) Components:

None present or none present in regulated quantities.

SARA Section 311/312 Hazard Categories:

Refer to hazard classification information in Section 2.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A) Components:

None present or none present in regulated quantities.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required Components:

None present or none present in regulated quantities.

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

Under RCRA, it is the responsibility of the person who generates a solid waste, as defined in 40 CFR 261.2, to determine if that waste is a hazardous waste.

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey, Pennsylvania or Rhode Island Right to Know Substance Lists:

None present or none present in regulated quantities.

California Prop. 65 Components:

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm. For more information, go to www.P65Warnings.ca.gov

NFPA Hazard Rating:

HEALTH	FIRE	INSTABILITY	SPECIFIC
1	1	0	
0 = Normal 1 = Slight 2 = Hazardous 3 = Extreme Danger 4 = Deadly	(Flash Points) 0 = Will not burn 1 = Above 200°F 2 = Below 200°F 3 = Below 100°F 4 = Below 73°F	0 = Stable 1 = Unstable if Heated 2 = Violent Chemical Change 3 = Shock and Heat May Detonate 4 = May Detonate	ACID (Acid) ALK (Alkaline) COR (Corrosive) OXY (Oxidizer) W (Use No Water)

HMIS Hazard Rating:

HEALTH	FLAMMABILITY	REACTIVITY	PROTECTIVE EQUIPMENT
1	1	0	X
0 = Normal 1 = Slight 2 = Hazardous 3 = Extreme Danger 4 = Deadly			X = Ask your Supervisor or Safety Specialist for handling instructions

Canada regulations/legislation:

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations.

International Regulations/Inventories:

No data available.

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
COD / BOD	Chemical Oxygen Demand / Biological Oxygen Demand
PACs /	Polycyclic Aromatic Compounds / Polycyclic Aromatic Hydrocarbon Content
PAHs	
STOT, SE	Specific Target Organ Toxicity following Single Exposure
STOT, RE	Specific Target Organ Toxicity following Repeated Exposure
DOT	Department of Transportation
IMDG	International maritime dangerous goods code
IATA, ICAO	International Air Transport Association, International Civil Aviation Organization
TSCA	Toxic Substances Control Act
EPCRA	Emergency Planning and Community Right-to-Know Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
RQ	Reportable Quantity
EHS	Extremely Hazardous Substances
DSL	Domestic Substance List
WHMIS	Workplace Hazardous Materials Information System

Latest revision date: June 15, 2021 – Internal Review

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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.