PRODUCT NAME(S): Concrete Polymer Liquid

SECTION 1 – IDENTIFICATION

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

Product name: **Concrete Polymer Liquid**

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 08

Classification of the substance or mixture:

Hazard Class	Category	Hazard Statement Codes	Hazard Statements
Carcinogenicity	2	H351	Suspected of causing cancer by ingestion

Precautionary Statements:

Prevention:	P201	Obtain special instruction before use.
	P202	Do not handle until all safety precautions have been read and understood.
	P281	Use personal protective equipment as required.
Response:	P308 + P313	IF exposed or concerned: Get medical advice/attention.
Storage:	P405	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: See Section 11.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS #	EC #	Concentration, %
Vinyl Acetate	CAS #: 108-05-4	203-545-4	0.1 – 1

SECTION 4 – FIRST-AID MEASURES

Description of First Aid measures:

Inhalation: Move to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory problems, seek medical attention.

Skin: Wash material off of the skin with plenty of soap and water. Remove contaminated clothing and shoes and wash them before reuse. Get medical advice/attention if irritation develops or persists.

Eye: 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. Do not rub eyes in order to prevent corneal injury. Get medical advice/attention if eye irritation develop or persists.

Ingestion: Move to fresh air and keep at rest in a position comfortable for breathing. Remove dentures if any. Rinse mouth thoroughly with water and then drink 60 to 240 mL (2 to 8 oz). Get medical advice/attention if symptoms occur.

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 an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media: None.

Specific hazards arising from the chemical: Not combustible. This product is an aqueous mixture that will not burn. Dried product film will burn in a fire. Hazardous Combustion products: carbon oxides, organic acids, aldehydes, alcohols, etc.

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. Isolate the scene by removing all persons from the incident area. No action should be taken involving any personal risk or without suitable training.

Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. 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 and unprotected personnel from entering. Ensure adequate ventilation/exhaust extraction. Avoid breathing vapors or mist during clean up. 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, basements or confined areas. 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: Remove mechanically; cover the remainder with non-combustible absorbent material (e.g. sand, earth, vermiculite or diatomaceous earth). Following absorption, transfer into properly labeled chemical waste containers. If necessary, repeat application of absorbent material until all liquid has been removed from the surface. Remove residual with warm, soapy water. After cleaning, remove waste container and keep in a well ventilated area. Properly dispose of the waste material in accordance with existing federal, state and local regulations.
For minor spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly with soap and water to remove residual contamination. Never return spills to original containers for re-use.

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: No special precautions are needed in handling this material.
Note: This product contains limited amounts of residual monomer, which under normal handling and use conditions should not present a hazard. In storage the monomer will migrate from the emulsion and establish equilibrium between the headspace in the storage container and the liquid emulsion. Levels in excess of acceptable exposures can accumulate in non-vented headspaces above the emulsion.

Conditions for safe storage, including any incompatibilities: Store in original or approved alternative container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.
Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Normal temperature and pressures do not affect the material.
Requirements to be met by storerooms and receptacles: Protect from freezing.

Storage stability: Stable under normal conditions.
Storage temperature: >40°F (5°C)

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: Not available for mixture. Results for components are listed in Section 15.

Appropriate engineering controls: Good local and general ventilation should be sufficient to control worker exposure to airborne contaminants below recommended exposure limits. Local exhaust may be required in some areas.

Personal protective equipment:
Eye/face protection:

When directly handling liquid product, eye protection is recommended. Examples of eye protection include safety glasses and goggles or full face shield when there is a greater risk of splash. Contact lenses should not be worn when working with chemicals.

Skin/body protection:

Impervious gloves (nitrile butyl rubber, neoprene or PVC) should be worn when working with this product for prolonged amount of time. Body should be covered with appropriate clothing (apron, arm covers or full body suit).

Respiratory protection:

Use local or general ventilation to control exposures below applicable exposure limits. When ventilation is inadequate, respirators should be selected based on NIOSH or OSHA's respirator standard (29 CFR 1910.134).

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:	White Liquid
Odor:	Sweet
Odor threshold:	Not available
pH:	4 – 6
Melting point/ freezing point:	32°F
Initial boiling point and boiling range:	212°F
Flash point:	Not applicable
Evaporation rate:	Not available
Flammability (solid, gas):	Not classified as a flammability hazard
Upper/ lower flammability or explosive limits:	Not available
Vapor pressure:	Not available
Vapor density:	Not available
Relative density:	Not available
Solubility (water):	Dispersible
Partition coefficient n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	1,500 - 2,500 cPs
Solid Content, by weight:	58-61 %

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: Product will not undergo hazardous polymerization. Corrosive effects to metal are anticipated. Based on its structural properties the product is not classified as oxidizing.

Chemical stability: Stable under recommended storage conditions.

Conditions to avoid: Heat, flame and sparks.
Incompatible materials: Strong oxidizing agents; alcohols, amines, bases, acids.

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced. In fire conditions, depending on temperature, air supply and presence of other materials, decomposition products can include, but are not limited to carbon oxides, organic acids, aldehydes, alcohols, etc.

SECTION 11 – TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Skin and Eye Contact, Inhalation and Ingestion.
Symptoms of exposure:
Acute toxicity:
Oral: Not anticipated.
Dermal: Not anticipated.
Inhalation: Not anticipated.
Skin corrosion / irritation: Not available.
Serious eye damage / eye irritation: Not available.
Specific target organ toxicity, single exposure: Not available.
Aspiration hazard: Not an aspiration hazard.

Chronic toxicity:
Respiratory and Skin Sensitizer: Not available.
Germ cell mutagenicity:

This product contains component which cause concern due to possible mutagenic effects, but for which the available information is not adequate for making a satisfactory assessment.

Carcinogenicity:

This product contains impurity that is suspected to be carcinogenic to humans.

- Vinyl Acetate, CAS #: 108-05-4: IARC: Group 2B (Possibly Carcinogenic to Humans)

Reproductive toxicity: Not available.
Specific target organ toxicity, repeated exposure: Not available.

Medical conditions aggravated by overexposure: Not available.

Toxicity test results: Not available for mixture. Available data:

Components	Test Results
Vinyl Acetate, CAS #: 108-05-4	Acute Toxicity: Oral LD50 (Rat): 2,900 mg/kg Dermal LD50 (Rabbit): 2,335 mg/kg Inhalation LC50 (Rat), 4hrs: 14.1 mg/L; Harmful if inhaled. Skin corrosion/irritation (Rabbit): No skin irritation (OECD Test Guideline 404) Serious eye damage/eye irritation (Rabbit): No eye irritation (OECD Test Guideline 405) STOT, SE: May cause respiratory irritation. Aspiration hazard: No Chronic toxicity: Sensitization, skin and respiratory (Mouse): in vivo assay - Does not cause skin sensitization (OECD Test Guideline 429) Germ cell mutagenicity: in vitro assay lymphocyte: unclear evidence; in vitro Chromosome aberration test: positive; Not mutagenic in Ames Test Carcinogenicity: Category 2, Limited evidence of carcinogenicity in animal studies; IARC: Group 2B: Possibly carcinogenic to humans (Vinyl acetate) / NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP / OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Reproductive toxicity: No data available. STOT, RE: No data available.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: Not known.

Persistence and degradability: Not known.
Bioaccumulative potential: Not known.

Mobility in soil: Not known.
Other adverse effects: Not known.

Ecotoxicity test results: Not available for the mixture. Available data:

Components	Test Results
Vinyl Acetate, CAS #: 108-05-4	Harmful to aquatic life with long lasting effects. Acute Toxicity: Fish (fathead minnow), 96hrs: LC50: 14mg/L (OECD Test Guideline 203) Aquatic Invertebrates (Daphnia magna), 48hrs: EC50: 12.6 mg/L (OECD Test Guideline 202) Aquatic Plants (green algae), 96hrs: EC50: 12.7 mg/L (OECD Test Guideline 201) Chronic toxicity: (fathead minnow), 28days: NOEC= 0.16 mg/L (OECD Test Guideline 212) NOEC (green algae), 96hrs: NOEC= 1.58 mg/L (OECD Test Guideline 201) Ecological data: Persistence and degradability: 82 - 98 % - Readily biodegradable (OECD Test Guideline 301C) Bioaccumulative potential: No bioaccumulation is to be expected (log Pow <= 4). Mobility in soil: No data available. Results of PBT and vPvB assessment: not available as chemical safety assessment not required/not conducted

SECTION 13 – DISPOSAL CONSIDERATIONS

Product Disposal: The generation of waste should be avoided or minimized wherever possible. To the best of our knowledge, this product does not meet criteria of hazardous waste as defined in 40 CFR 261, Subpart C and D. Do not discharge into sewer system. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

Container disposal: Even after emptying, container may retain residues. Containers should be completely emptied and safely stored until appropriately reconditioned or disposed.

SECTION 14 – TRANSPORT INFORMATION

Land transport, U.S. DOT: Non-regulated
Sea transport, IMDG: Non-regulated
Air transport, IATA/ICAO: Non-regulated

SECTION 15 – REGULATORY INFORMATION

U.S. Regulations:
OSHA HCS: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 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):
No components are subject to the reporting. * Listed: Vinyl acetate, CAS #: 108-05-4: TPQ: 1,000 lbs
EPCRA Section 304 (40 CFR Part 355) (Emergency Release Notification Requirements):
No components are subject to the reporting. * Listed: Vinyl acetate, CAS #: 108-05-4: EHS RQ: 5,000 lbs
EPCRA Sections 311 & 312 (Hazardous Chemical Inventory Reporting, Hazard Categories):
None

EPCRA Section 313 (40 CFR Part 372) (Toxic Chemical Release Inventory Reporting):
No components are subject to the reporting. * Listed: Vinyl acetate, CAS #: 108-05-4: in Product: 0.1-1%; De Minimis: 0.1%
CERCLA Sections 102-103 (40 CFR Part 302) (Hazardous Substances Release Notification):
No components are subject to the reporting. * Listed: Vinyl acetate, CAS #: 108-05-4: RQ: 5,000 lbs
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: No components listed.
- Accidental Release Prevention / Risk Management Plan Rule Section 112(r): No components are subject to the reporting.
  * Listed: Vinyl acetate, CAS #: 108-05-4: TQ: 15,000 lbs

Clean Water Act:

- Section 307(a) (Toxic pollutants): No components are listed.
- Section 311(b)(2): Table 116.4A (Hazardous chemicals) / Table 117.3 (RQ): No components are subject to the reporting.
  * Listed: Vinyl acetate, CAS #: 108-05-4: RQ: 5,000 lbs

Exposure Limits:

- Vinyl acetate, CAS #: 108-05-4:
  USA. ACGIH TLV: TWA 10 ppm; STEL 15 ppm;
  USA. NIOSH REL: 4 ppm; 15 mg/m$^{3;}$ 15 minute ceiling value

NFPA rating:	Health: 0	Fire: 0	Reactivity: 0	Special: 0
HMIS rating:	Health: 0	Flammability: 0	Physical hazard: 0	

State Regulations:
California Prop. 65 Components:
This product does not contain chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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

International Regulations/Inventories:

Canada (DSL):	All components of this product are listed on the DSL.
Europe (REACH):	Not in compliance with the inventory
Australia (AICS):	On the inventory, or in compliance with the inventory
New Zealand (NZIoC):	Not in compliance with the inventory
Japan (ENCS):	On the inventory, or in compliance with the inventory
Korea (KECI):	On the inventory, or in compliance with the inventory
Philippines (PICCS):	On the inventory, or in compliance with the inventory
China (IECSC):	On the inventory, or in compliance with the inventory
Taiwan (TWINV):	Not in compliance with the inventory

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 / PAH	Polycyclic Aromatic Compounds / Polycyclic Aromatic Hydrocarbon Content
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
TQ	Threshold Quantity
TPQ	Threshold Planning Quantity
EHS	Extremely Hazardous Substances
DSL	Domestic Substance List
WHMIS	Workplace Hazardous Materials Information System

Latest revision date: March 2, 2016 – Preparation of SDS in accordance to the GHS requirements
Date of the previous revision: September 7, 2011

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.