SAFETY DATA SHEET

Preparation Date: 04/17/2018 Revision Date: 04/19/2018

SECTION 1: Identification

Polyurethane HD Part A

Manufacturer:RainguardProRAINGUARDPRO CUSTOMER SERVICE:(949) 515-880021622 Surveyor CircleCHEMTREC (EMERGENCY ONLY):(800) 424-9300

Huntington Beach, CA 92646 POISON CENTER: (800) 562-8236

Relevant Identified Uses: Raw material for coatings, adhesives, sealants, or elastomers incommercial or industrial applications.

SECTION 2: Hazards Identification

EMERGENCY OVERVIEW:

OSHA Hazards: No known OSHA hazards. Not a dangerous substance according to GHS.

Hazards not otherwise classified (HNOC) or not covered by GHS - None

HMIS CLASSIFICATION

Health Hazard: 0
Flammability: 0
Physical Hazards: 0

NFPA RATING

Health Hazard: 0
Fire: 0
Reactivity Hazard: 0

APPEARANCE: Milky white

EYE CONTACT: May cause eye irritation. Prolonged exposure may cause eye damage. **SKIN CONTACT:** May be harmful if absorbed through skin. May cause skin irritation.

INHALATION: May be harmful if inhaled. May cause respiratory tract irritation.

INGESTION: May be harmful if ingested.

ACUTE HEALTH EFFECTS: May be irritating to skin, eyes and digestive tract.

CHRONIC HEALTH EFFECTS: Repeated and prolonged exposures have not been studied.

AGGRAVATION of PRE-EXISTING CONDITIONS: Persons with preexisting conditions may be more susceptible.

SECTION 3: Composition and Information on Ingredients

CHEMICAL FAMILY: Aqueous Polyacrylic Polyester Diol Dispersion

HAZARDOUS COMPONENTS

There are no hazardous components above the relevant concentration limits according to OSHA HazCom 2012.

OTHER INGREDIENTS CAS # % by Mass Hazardous

Triethanolamine 102-71-6 1 No

This product contains an amine neutralizing agent which is bound in the matrix of this product as a salt. This amine salt is considered unreacted at room temperature. Generation of amine vapors is expected when this product is processed (heated) during the drying/hardening of the coating.

SECTION 4: First Aid Measures

PRIMARY ROUTES OF EXPOSURE: Ingestion, dermal contact.

EYE EXPOSURE: Remove contacts if present. Immediately flush the eyes with water for at least 10-15 minutes. Seek medical attention if irritation persists.

SKIN EXPOSURE: Wash the affected area with soap and water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: If breathed in, move person to fresh air. If not breathing, give artificial respiration.

INGESTION: If the person is conscious, rinse their mouth out with water. Never give anything by mouth to an unconscious person. If ingested, do not induce vomiting unless directed to do so by medical personnel. Seek medical attention.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED: Not expected to cause adverse acute health effects. The most important known symptoms and effects are described in section 2 and/or in section 11.

SECTION 5: Fire Fighting Measures

EXTINGUSHING MEDIUM: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self contained breathing apparatus for fire fighting if necessary.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: By fire and thermal decomposition: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke, undetermined compounds.

UNUSUAL FIRE OR EXPLOSION HAZARDS: None.

SECTION 6: Accidental Release Measures

GENERAL PROTECTION: See Section 8 for personal protection. Avoid breathing vapors, mist or gas.

ENVIRONMENTAL PRECAUTIONS: No special environmental precautions required.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP: Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal. Dike or dam spilled material and control further spillage, if possible. Prevent from entering open drains and waterways. Wash spill area with soap and water. Ventilate area to remove vapors or dust.

SECTION 7: Handling and Storage

PRECAUTIONS FOR SAFE HANDLING: Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling. Keep closed when not in use. Avoid breathing dust, vapor, or mist. Avoid contact with eyes. Avoid contact with skin or clothing.

RECOMMENDED STORAGE: Store up to 6 months after receipt of material by customer. Store in closed container at 7 – 25 °C, separate from food products. DO NOT FREEZE. Storage class (TRGS 510): Non-Combustible Liquids

SECTION 8: Exposure Controls and Personal Protection

The recommendations in this section should not be a substitute for a personal protective equipment (PPE) assessment performed by the employer as required by 29 CFR 1910 Subpart I.

CONTROL PARAMETERS: EXPOSURE LIMITS

Triethanolamine (102-71-6)
US. ACGIH Threshold Limit Values
Time Weighted Average (TWA): 5 mg/m³

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Time Weighted Average (TWA): 5 mg/m³

Any component which is listed in section 3 and is not listed in this section does not have a known ACGIH TLV, OSHA PEL or supplier recommended occupational exposure limit.

EXPOSURE CONTROLS:

APPROPRIATE ENGINEERING CONTROLS: General industrial hygiene practice.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

SKIN PROTECTION: Wear protective clothing and gloves.

VENTILIATION: General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines. Thermal processing operations should be ventilated to control gases and fumes given off during processing. Curing ovens must be ventilated to prevent the buildup of explosive atmospheres and to prevent off gases from entering the work place.

RESPIRATOR: Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU) during high temperature processing or when thermal decomposition is suspected.

ADDITIONAL PROTECTION: Employees should wash their hands and face before eating or drinking. Educate and train employees in the safe use and handling of this product. Store separate from food products.

SECTION 9: Physical and Chemical Properties

FORM: Liquid

APPEARANCE/COLOR: Milky white

UPPER/LOWER FLAMMABILITY LIMIT: No data available.

ODOR: Mild, characteristic

VAPOR PRESSURE: No data available.

ODOR THRESHOLD: No data available.

VAPOR DENSITY: No data available.

pH: 7 - 8 (Determined in a 10% aqueous solution)
RELATIVE DENSITY: ca. 1.06 g/cm at 20 °C (68 °F) (DIN 51757)

MELTING/FREEZING POINT (°C): 0 °C (32 °F) similar to water

SOLUBILITY: Miscible in water

BOILING POINT (°C): 100 °C (212 °F) similar to water

FLASH POINT (°C): Not applicable (water based product); however, solid material will support

combustion if water has been evaporated.

EVAPORATION RATE:No data available. **FLAMMABILITY:**No data available. **PARTITION COEFFICIENT:**No data available.

AUTO-IGNITION TEMPERATURE (°C): ca. 455 °C (851 °F) (DIN 51794)

DECOMPOSITION TEMPERATURE (°C): No data available. **MOLECULAR WEIGHT:** No data available.

DYNAMIC VISCOSITY: 1,000 - 3,500 mPa.s@ 23 °C (73.4 °F) (DIN 53019)

KINEMATIC VISCOSITY: No data available.

SPECIFIC GRAVITY: Approximately 1.19 @25 °C (77 °F)

BULK DENSITY: Approximately 1,066 kg/m³

SECTION 10: Stability and Reactivity

REACTIVITY: No data available.

CHEMICAL STABILITY: Stable under recommended storage conditions. DO NOT FREEZE.

OTHER:

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization does not occur.

CONDITIONS TO AVOID: No data available. **MATERIALS TO AVOID:** Water reactive materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Hazardous decomposition products may be formed under fire and thermal decomposition conditions – carbon dioxide, carbon monoxide, oxides of nitrogen, dense black smoke, other undetermined compounds. See section 5 the event of fire.

SECTION 11: Toxicological Information

ACUTE TOXICITY: Polyester Diol Dispersion

Oral LD50: > 5,000 mg/kg (Calculation method).

Inhalation LD50:

Dermal LD50:

Other information on acute toxicity:

No data available.

No data available.

No data available.

No data available.

SERIOUS EYE DAMAGE/IRRITATION

No data available.

RESPIRATORY OR SKIN SENSITIZATION

No data available.

No data available.

CARCINOGENICITY

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

REPRODUCTIVE TOXICITY:

No data available

TERATOGENICITY:

No data available

SPECIFIC TARGET ORGAN TOXICITY

No data available

ASPIRATION HAZARD

No data available

POTENTIAL HEALTH EFFECTS

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion: May be harmful if swallowed.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

SIGNS AND SYMPTOMS OF EXPOSURE: May cause argyria (a slate-grey or bluish discoloration of the skin and deep tissues to the deposit of insoluble albuminate of silver. Exposure to silver compounds can cause contact dermatitis. The toxicological properties have not been thoroughly investigated. The data supplied are for closely related compounds. No data available.

SYNERGISTIC EFFECTS: No data available.

ADDITIONAL INFORMATION: RTECS not available.

SECTION 12: Ecological Information

AQUATIC/TERRESTRIAL ORGANISM TOXICITY: No data available.

ASPIRATION HAZARD No data available.

PERSISTANCE AND DEGRADABILITY: No data available.

BIOACCUMULATIVE POTENTIAL: No data available.

MOBILITY IN SOIL: No data available.

PBT AND vPvB ASSESSMENT: No data available.

OTHER ADVERSE EFFECTS: No data available.

SECTION 13: Disposal Considerations

DISPOSAL: Dispose of according to local, state and federal regulations. (Refer to Section 8)

SECTION 14: Transportation Information

DOT (US): Not dangerous goods.

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

SHIPPING NAME (CFR): Non-hazardous.

SHIPPING NAME (IATA): Non-hazardous.

SECTION 15: Regulatory Information

OSHA HAZARDS: No known OSHA hazards.

DSL STATUS: All components of this product are on the Canadian DSL list.

TSCA 8(b) inventory: Triethanolamine, CAS# 102-71-6.

TSCA 12(b) export: No substances are subject to TSCA 12(b) export notification requirements.

US. EPA CERCLA HAZARDOUS SUBSTANCES (40 CFR 302) COMPONENTS: None.

SARA 302 COMPONENTS: No chemicals in this material are subject the reporting requirements of SARA Section 302.

SARA 313 COMPONENTS: No chemicals in this material are subject to the reporting requirements of SARA Section 313.

SARA 311/312 HAZARDS: No SARA Hazards.

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.

MA, PA, or NJ RIGHT TO KNOW COMPONENTS:

INGREDIENTS	CAS#	% by Mass
Polyacrylate Resin	Trade secret	≥ 1%
Water	7732-18-5	≥ 1%
Reactive diluent	Trade secret	≥ 1%
Triethanolamine	102-71-6	1 – 5%
Propylene Glycol n- Butyl Ether	5131-66-8	1 – 5%
Polyester Diol	Trade secret	1 – 5%
Polyacrylate Resin	Trade secret	≥ 1%

CA PROP 65 COMPONENTS: Warning! This product contains chemical(s) known to the State of California to be carcinogenic.

INGREDIENTS	CAS#	% by Mass
Diethanolamine	11142-2	≤ 0.1%

CFATS (Chemical Facility Anti-Terrorism Standards) Chemicals

To the best of our knowledge, this product does not contain Appendix A Chemicals of Interest (COI), at or above the Screening Threshold Quantity (STQ), as defined by the Department of Homeland Security Chemical Facility Anti-Terrorism Standard (CFATS, 6 CFR Pan 27).

SECTION 16 Other Information

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, RainguardPro makes no representation, warranty, or guarantee of any kind with respect to the information contained in this document or any use of the product based on this information.