

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Polyfusion (Part A)

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Polyfusion (Part A)

OTHER/GENERIC NAMES: None

PRODUCT USE: Structural Adhesive

MANUFACTURER: RPM Technology, LLC
P.O. Box 33186
Reno, NV 89533-3186

EXCLUSIVE DISTRIBUTOR: Blueline Technology, LLC
265 Burns Drive
Yuba City, CA 95991
530-671-5060

INFORMATION CALL: 886-403-4842 IN CASE OF EMERGENCY CALL: 800-424-9300
(Monday-Friday, 9:00am - 4:30pm Pacific) (24 Hours/Day, 7 Days/Week) (CHEMTREC)

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>%</u>
Polyester Adipate	Trade Secret	40 - 70
Polyfunctional Aziridine	64265-57-2	10 - 30
Amine Borane	223674-50-8	10 - 30
Amorphous Silica	7631-86-9	< 2

The components of this product are in compliance with the chemical notification requirements of TSCA.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Specific Physical Form: Paste

Odor, Color, Grade: mild odor, white

General Physical Form: Liquid

Immediate health, physical, and environmental hazards: Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Combustible liquid and vapor. May cause chemical eye burns. May cause allergic skin reaction. May cause severe skin irritation. May cause allergic respiratory reaction.

POTENTIAL HEALTH EFFECT

Eye Contact:

Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Skin Contact:

Severe Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain. Prolonged or repeated exposure may cause: Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.
May be absorbed through skin and cause target organ effects.

Inhalation:

Upper Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Prolonged or repeated exposure may cause: Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

May be absorbed following inhalation and cause target organ effects.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting. May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:

Prolonged or repeated exposure may cause: Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Kidney Effects: Signs/symptoms may include reduced or absent urine production, increased serum creatinine, lower back pain, increased protein in urine, and increased blood urea nitrogen (BUN).

4. FIRST AID MEASURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.

If Swallowed: Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

Autoignition Temperature: No Data Available

Flash Point: 180 °F [Test Method: SETAFLASH]
[Details: SPECIFIC METHOD: ASTM D-3278-96]

Flammable Limits - LEL No Data Available

Flammable Limits – UEL No Data Available

OSHA Flammability Classification: Class IIIA Combustible Liquid

EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Combustible liquid and vapor.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Observe precautions from other sections. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Contain spill. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS. Collect the resulting residue containing solution. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible. Cloth or paper contaminated with adhesive should be disposed of in a metal container, covered with water and container sealed.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

7. HANDLING AND STORAGE

HANDLING

Avoid eye contact with vapors, mists, or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining. Avoid breathing of vapors, mists or spray. Do not breathe vapors. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. For industrial or professional use only. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Avoid contact with oxidizing agents.

STORAGE

Store away from acids. Store away from heat. Store out of direct sunlight. Store away from oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.
The following eye protection(s) are recommended: Safety Glasses with side shields.

Skin Protection

Avoid skin contact. When equalizing plungers, prior to use, dispense unmixed adhesive onto a clean, solvent-free, non-porous surface such as aluminum foil, glass or a metal can. Do not dispense unmixed adhesive onto paper or cloth towels or rags.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Butyl Rubber, Nitrile Rubber, Polyethylene, Polyvinyl Alcohol (PVA).

Respiratory Protection

Avoid breathing of dust created by cutting, sanding, grinding or machining. Avoid breathing of vapors, mists or spray. Do not breathe vapors.
 Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or fullface air-purifying respirator with organic vapor cartridges. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u> <u>Limit</u>	<u>Additional Information</u>
Amorphous Silica	CMRG	CEIL	5 mg/m ³

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental industrial hygienists
- CMRG: Chemical Manufacturer Recommended Guideline
- OSHA: Occupational Safety and Health Administration
- AIHA: American Industrial Hygiene Association
- Workplace Environmental Exposure Level (WEEL)

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Paste
Odor, Color, Grade:	mild odor, white
General Physical Form:	Liquid
Autoignition temperature	No Data Available
Flash Point	180 °F [Test Method: SETAFLASH] [Details: SPECIFIC METHOD: ASTM D-3278-96]
Flammable Limits – LEL	No Data Available
Flammable Limits – UEL	No Data Available
Boiling point	>=95 °F
Vapor Density	No Data Available
Vapor Pressure	<=0.1 mmHg
Specific Gravity	1.063
Mixed Specific Gravity	0.991 [Details: when mixed 10 parts B to 1 part A]
PH	Not Applicable
Melting point	Not Applicable
Solubility in Water	Slight (less than 10%)
Evaporation rate	No Data Available
Volatile Organic Compounds	65 g/l [Test Method: tested per EPA method 24A] [Details: CONDITIONS: @ 110 C]
Percent volatile	6.15 % weight [Test Method: ASTM METHOD] [Details: CONDITIONS: D2369 @110 C]
VOC Less H2O & Exempt Solvents	65 g/l [Test Method: tested per EPA method 24A] [Details: CONDITIONS: @ 110 C]
Mixed VOC Less H2O & Exempt Solvents	48 g/l [Details: when mixed 10 parts B to 1 part A]
Viscosity	49000 centipoise

10. STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: Strong acids; Heat

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products During Combustion:

Aldehydes, Amine Compounds, Carbon monoxide, Carbon dioxide, Oxides of Nitrogen, Toxic Vapor, Gas, Particulate.

11. TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

12. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Cure (harden, set, or react) the product according to product instructions. Dispose of completely cured (or polymerized) wastes in a sanitary landfill.

As a disposal alternative, incinerate uncured product in an industrial or commercial incinerator.

EPA Hazardous Waste Number (RCRA): Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

13. TRANSPORT INFORMATION

Not regulated per U.S. DOT, IATA or IMO.

These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. This information applies only to transportation classification and not the packaging, labeling, or marking requirements. The original package is certified for U.S. ground shipment only. If you are shipping by air or ocean, the package may not meet applicable regulatory requirements.

14. REGULATORY INFORMATION

311/312 Hazard Categories:

Fire Hazard – Yes Pressure Hazard – No Reactivity Hazard - No
 Immediate Hazard – Yes Delayed Hazard – Yes

CHEMICAL INVENTORIES

One or more of the components in this material is not listed on the TSCA inventory, but is approved for specific commercial use(s) under a US EPA low volume exemption (up to 10,000 kg/yr). Research and development production quantities are not included in the 10,000 kg/yr limit.

15. DOCUMENTARY INFORMATION

NFPA Hazard Classification

Health: 3 **Flammability:** 2 **Reactivity:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions

of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMS Hazard Classification

Health: 3 Flammability: 1 Reactivity: 0 Protection: X - See PPE section.

Hazardous Material Identification System (HMIS(r)) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS(r) ratings are to be used with a fully implemented HMIS(r) program. HMIS(r) is a registered mark of the National Paint and Coatings Association (NPCA).

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