



Advanced Polymers for High Tech Applications

1. Material Identification

Product Name: PFP 9110LV Hardener

Emergency Phone: For product emergencies involving spill, leak, fire, exposure, or accident call CHEMTREC at (800) 424-9300. For all other inquiries call Precision Fiber Products, Inc at (408) 946-4040.

2. Composition

Hazardous Components	CAS No.	Percent	ACGIH TLV-TWA	OSHA PEL
Aliphatic Amine	Proprietary	100	N.E.	N.E.

Abbreviations: N.E. = Not Established

3. Health Hazard Identification

Primary Routes of Exposure: Eyes: Yes Skin: Yes Inhalation: Yes

Eye Contact: Corrosive. May cause burns and permanent injury.

Skin Contact: Corrosive. May cause dermatitis and deep burns.

Inhalation: May be harmful.

Ingestion: Corrosive. May cause severe gastric disturbances and damage.

4. First Aid Measures

Eyes: Flush eyes thoroughly with water for 15 minutes while holding eyelids open. Seek immediate medical attention.

Skin: Remove contaminated clothing, wipe excess from skin, and flush the affected area with water. Wash contaminated clothing thoroughly before reuse. Obtain immediate medical attention.

Inhalation: Remove to fresh air, and provide oxygen or artificial respiration if needed. Obtain immediate medical attention.

Ingestion: DO NOT induce vomiting. Give milk or water unless the victim is drowsy, convulsing, or unconscious. Obtain immediate medical attention.

5. Accidental Release Measures

Ventilate the spill area, and evacuate if necessary. Shut off the source of the leak if it is safe to do so. Remove all ignition sources. Absorb with a suitable material, and dispose of properly. Clean-up personnel should use adequate protective equipment.

6. Handling and Storage

Store in a cool dry place away from ignition sources and high temperatures. Avoid contact with incompatible materials. Wear protective clothing as appropriate.



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7. Fire Fighting Measures

Flash Point:	> 280°F
Explosive Limits (% volume in air):	Not determined.
Auto-Ignition Temperature:	Not determined.
Hazardous Combustion Products:	Carbon oxides and nitrogen oxides.

Extinguishing Media and Fire Fighting Instructions

When sufficiently large quantities are present, firefighters should be equipped with full bunker gear, including a positive pressure, NIOSH approved, self-contained breathing apparatus.

Extinguishing Media: Use water fog or "alcohol" foam.

8. Exposure Controls and Personal Protection

Engineering / Ventilation Controls:	General ventilation is acceptable under most conditions, although local ventilation is required to control exposure whenever vapors, mists, or dusts are generated. Eye wash stations should be readily available.
Respiratory Protection:	Where exposure exceeds established airborne limits, use a NIOSH approved respirator, or a self-contained breathing apparatus, or a supplied air respirator as necessary to control exposure.
Skin Protection:	Impervious gloves and protective clothing should be worn as necessary.
Eye Protection:	Wear chemical splash goggles or safety glasses with side shields.

9. Physical and Chemical Properties

Appearance / State:	Light yellow liquid	Boiling Point:	> 146°C
Odor:	Not determined	Freezing Point:	Not determined
pH:	Does not apply	Specific Gravity:	Not determined
Vap. Pressure (mmHG):	< 1.0 millibar	Solubility in Water:	Partial
Vap. Density (air = 1):	Not determined	Evaporation Rate (Ether=1):	Not determined

10. Stability and Reactivity

Chemical Stability:	Stable under normal conditions and use.
Conditions and Materials to Avoid:	Keep away from ignition sources and high temperatures. Reacts with acids.
Hazardous Decomposition Products:	Carbon oxides and nitrogen oxides.
Hazardous Polymerization:	Will not occur.

11. Disposal Considerations

Keep out of surface waters, sewers, and waterways entering or leading to surface waters. Notify authorities if any exposure to the environment occurs or is likely to occur. Utilize an appropriate disposal facility, in compliance with applicable federal, state, and local environmental control regulations.

12. Transportation Information

DOT Classification: Amine Liquid, Corrosive, NOS (Aliphatic Amine)			
Hazard Class: 8	UN: 2735 PG: II	ERG #: 153	Hazard Labels: Corrosive
IATA Classification: Amine Liquid, Corrosive, NOS (Aliphatic Amine)			
Hazard Class: 8	UN: 2735 PG: II	ERG #: 153	Hazard Labels: Corrosive

Precision Fiber Products, Inc.
180 S. Hillview dr. Milpitas, CA, 95035, USA

E-mail: orders@pfpfiber.com
www.precisionfiberproducts.com

Phone: 1 (408) 946-4040 • Standard Fax: 1 (408) 228-1958 • PO Fax only: 1 (408) 228-8058



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13. Toxicological Information

This section provides toxicological information with regard to the pure form of the components indicated. This information can be subject to misinterpretation. It is therefore suggested that persons trained in its evaluation interpret this information.

Aliphatic Amine

Acute Oral LD50:	3160 mg/kg, rat
Acute Dermal LD50:	> 2150 mg/kg, rat; 2500 mg/kg, rabbit

This component has been determined to be corrosive to the eyes and skin of a rabbit.

14. Regulatory Information

US Federal Regulations

TSCA: The chemical components of this product are included in the TSCA Chemical Substance Inventory, as required.

SARA Title III Information

Section 313 – Toxic Chemicals:

Pursuant to section 313 or SARA Title III, this product does not contain any chemicals in a concentration equal to or greater than the *de minimis* level.

Section 311/312 – Hazard Categories:

Fire Hazard:	No
Reactivity Hazard:	No
Sudden Release of Pressure Hazard:	No
Immediate (Acute) Health Hazard:	Yes
Delayed (Chronic) Health Hazard:	No

NFPA Hazards:	Health: 3	Flammability: 1	Reactivity: 0
HMIS Hazards:	Health: 3	Flammability: 1	Reactivity: 0

State Regulations/Right to Know

California Proposition 65: This product is not known to contain any chemicals which are recognized by the State of California to cause cancer, birth defects, or other reproductive harm, including epichlorohydrin and phenyl glycidyl ether.

Precision Fiber Products, Inc urges each customer or recipient of this MSDS to study it carefully in order to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology, and/or fire prevention, as necessary to use and understand the data contained in this MSDS.

To promote safe handling, customers and recipients should: 1 –notify their employees, agents, contractors, and others whom they know or suspect will use this material or the information in this MSDS and any other information regarding hazards or safety; 2 –furnish this same information to each of their customers for the product; and 3 –request their customers to notify their employees, customers and other users of the product of this information.

The information contained herein is based on the data available to Precision Fiber Products, Inc, and is believed to be correct. However, Precision Fiber Products, Inc makes no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. Precision Fiber Products, Inc assumes no responsibility for injury from the use of the product described herein.