PRECISION SURFACES INTERNATIONAL, INC.
922 Ashland Houston, TX 77008-6734
713-426-2220 Fax: 713-426-2223

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product Name:	Epoxy Fast Set Hardener
Product Identifier:	PSI-233-4H
Supplier:	Precision Surfaces International, Inc. 922 Ashland, Houston, TX 77008-6734
Emergency Telephone:	Infotrac 800-535-5053
Recommended Use:	For Industrial Use

SECTION 2: Hazard(s) Identification

Hazard Statements
Skin corrosion/irritation – Category 2
Serious eye damage/eye irritation – Category 1
Respiratory sensitization – Category 1
Skin sensitization – Category 1
Reproductive Toxicity – Category 2
Specific target organ toxicity (single exposure) – Category 1
Specific target organ toxicity (repeated exposure) – Category 1

Pictograms

Precautionary Statements

Prevention
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves, protective clothing, eye protection, and face protection. In case of inadequate ventilation wear respiratory protection. Use only outdoors or in a well-ventilated area. Do not breathe dust, fumes, or vapors. Do not eat, drink, or smoke when using this product. Wash face, hands and any exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response
Get medical advice/attention if you feel unwell. IF exposed: Call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before re use. If skin irritation or rash occurs: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Storage
Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal
Dispose of contents/container in accordance with local, regional, and international regulations.

Other
93% of the mixture consists of ingredient(s) of unknown toxicity. GHS Classification in accordance with 29 CFR 1910 (OSHA HCS). This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

SECTION 3: Composition/Information on Ingredients

Ingredient	C.A.S. No.	% by Weight
Amine – Proprietary	Proprietary	5 – 10*
Polyethylenepolyamine – Proprietary	Proprietary	5 – 10*

Other: *The exact percentage (concentration) of composition may have been withheld as a trade secret.

SECTION 4: First-aid Measures

General Advice
Use first aid treatment according to the nature of the injury. For further assistance, contact your local Poison Control Center. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Administer oxygen if breathing is difficult. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If symptoms persist, call a physician.

Skin Contact/Clothing Treatment
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of burns, immediately cool affected skin for as long as possible with cold water. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse. May cause allergic skin reaction.

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Ingestion
Rinse mouth. Do NOT induce vomiting. Call a physician or Poison Control Center immediately.

Self-Protection of the First Aider
First Aider: Pay attention to self-protection. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Do not use the mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

SECTION 5: Fire-fighting Measures

Extinguishing media
Foam, Dry Chemical, Carbon Dioxide (CO2)

Unsuitable Extinguishing Media
Water reactive

Special Firefighting Procedure
Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes, and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Substance will react with water (some violently) releasing flammable, toxic or corrosive gases and runoff. Cool closed containers exposed to fire with water spray. Do not allow run-off from firefighting to enter drains or water ways. Dike for water control.

Irritating or toxic substances may be emitted upon burning, combustion or decomposition. See Section 10 Hazardous Decomposition Products for additional information.

Unusual Fire and Explosion Hazards
None

Hazardous Decomposition
None

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal precautions for emergency responders
Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required.

Environmental precautions
Do not allow into any sewer, on the ground or into any body of water. See Section 12 for additional Ecological Information.

Methods and Material for Containment and Cleaning Up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Pick up and transfer to properly labeled containers.

SECTION 7: Handling and Storage

Handling
Handle in accordance with good industrial hygiene and safety practice.

Storage
Keep containers tightly closed in a dry, cool, and well-ventilated place.

Incompatibilities
Acids, Bases, Strong oxidizing agents, water

SECTION 8: Exposure Controls/Personal Protection

Control Parameters

Occupational exposure limits
If a component in disclosed in Section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	OSHA PEL	ACGIH TLV
Amine – Proprietary	Proprietary	1 ppm	
Polyethylenepolyamine – Proprietary	Proprietary	4 mg/m3 1 ppm	4.2 mg/m3 1 ppm Form: Skin

Engineering Controls
Showers, Eyewash stations, Ventilation systems

Eye Protection
Splash goggles. Avoid contact with eyes.

Skin Protection
Wear protective gloves and protective clothing.

Respiratory Protection
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Ventilation
None Listed

Other Protective Clothing or Equipment
Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and Chemical Properties

Physical State:	Liquid
Color:	Clear/Amber
Odor:	Amine
pH:	No Information Available
Melting Point/Freezing Point:	No Information Available
Boiling Point/Range:	No Information Available
Flash Point:	93.4°C 1 (n-butyl acetate = 1) Pensky-Martens Closed Cup (PMCC)
Evaporation Rate:	No Information Available
Flammability (solid, gas):	No Information Available

Flammable Limits (LEL):	No Information Available
Flammable Limits (UEL):	No Information Available
Vapor Density:	1
Specific Gravity:	1.02
Solubility:	No Information Available
Solubility in Other Solvents:	No Information Available
Autoignition Temperature:	No Information Available
Decomposition Temperature:	No Information Available
Percent volatile:	No Information Available
Partition Coefficient:	No Information Available
Kinematic Viscosity:	No Information Available
Dynamic Viscosity:	No Information Available
Explosive Properties:	No Information Available
Oxidizing Properties:	No Information Available
Softening Point:	No Information Available
Molecular Weight:	No Information Available
Density:	8.5 pounds/gallon
Bulk Density:	No Information Available

SECTION 10: Stability and Reactivity

General
Stable under normal conditions.

Conditions to avoid
Keep out of reach of children. Avoid moisture. Incompatible Materials.

Incompatibility
Acids, Bases, Strong oxidizing agents, Water

Hazardous Polymerization
May not occur

Hazardous Decomposition Products
Carbon oxides, Nitrogen oxides (NOX). Thermal decomposition can lead to release of irritating and toxic gases and vapors.

SECTION 11: Toxicological Information

Routes of Exposure

Inhalation
Remove to fresh air. May cause irritation of respiratory tract. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Contact
Avoid contact with skin. Causes skin irritation. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Eye Contact
Corrosive to the eyes and may cause severe damage including blindness.

Ingestion
Do NOT taste or swallow. Not an expected route of exposure. Can burn mouth, throat, and stomach.

Substance	LD50 (Oral, Dermal)	LC50 (Inhalation)
Amine – Proprietary	2,500 mg/kg	
Polyethylenepolyamine – Proprietary	1,080 mg/kg 675 mg/kg, 1,090 mg/kg	

Caution – This preparation contains a substance not yet fully tested.

Reproductive	Mutagenicity	Carcinogenicity	Teratogenicity
Yes	No Info	No Info	No Info

Skin corrosion/irritation	Irritating to skin.
Serious eye damage/eye irritation	Risk of serious damage to eyes.
Irritation	Irritating to eyes, respiratory system and skin.
Corrosivity	Risk of serious damage to eyes.
Sensitization	May cause sensitization by inhalation. May cause sensitization by skin contact.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	Possible risk of impaired fertility. Possible risk of harm to the unborn child.
STOT – Single exposure	May cause disorder and damage to the eyes, and respiratory system.
STOT – Repeated exposure	May cause disorder and damage to the liver, kidney, respiratory system, lungs, and skin.
Chronic Toxicity	Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.
Aspiration Hazard	No information available.
Numerical Measures of Toxicity – Product Information	
Unknown Acute Toxicity	93% of the mixture consists of ingredient(s) of unknown toxicity.

SECTION 12: Ecological Information

100% of the mixture consists of components of unknown hazards to the aquatic environment.

Chemical Name	Algae-Aquatic Plants	Fish	Toxicity to Microorganisms	Crustacea
Amine-Proprietary	Acute EC50 3,700 ug/l Fresh Water – 96h			Acute EC50 33,900 ug/l Fresh Water – 96h

Persistence and Degradability

Chemical Name
Amine – Proprietary – potential – low

Partition Coefficient
1.66 - - 1.4

Other Adverse Effects

No information available

Ozone Depletion Potential (ODP)
No information available

SECTION 13: Disposal Considerations

Waste Treatment Methods

Disposal Methods
Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Contaminated Packaging
Do not reuse container.

SECTION 14: Transport Information

UN Number
Not regulated

UN Proper Shipping Name
Not regulated

Transport Hazard Class
Not regulated

Packing Group
Not regulated

Environmental Hazards
Not regulated

Transport in Bulk
Not regulated

Special Precautions for Transport
Not regulated

SECTION 15: Regulatory Information

International Inventories

TSCA
All components of this product are either exempt or included on the TSCA Inventory in compliance with the Toxic Substances Control Act.

Legend

TSCA – United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories
Acute Health Hazard: Yes Chronic Health Hazard: Yes Fire Hazard: No
Sudden Release of Pressure Hazard: No Reactive Hazard: No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

US State Right-to-Know Regulations
US EPA Label Information
EPA Pesticide Registration Number
Not applicable

SECTION 16: Other Information

NFPA Hazard Classification
Health: 2 **Flammability:** 1 **Instability:** 0 **Hazards:**

HMIS Hazard Classification
Health: 1* **Flammability:** 1 **Physical Hazard:** 0 **Protection:** X
*Chronic Health Hazard

0=minimal hazard 1=slight hazard 2=moderate hazard 3=serious hazard 4=extremely hazard

The above information and recommendation are believed to be accurate and reliable. However, no warranty, either expressed or implied, is made as to its accuracy or completeness and none is made as to fitness of this material for any purpose. The manufacturer or supplier shall not be liable for damages to person or property resulting from its use. Nothing herein shall be construed as a recommendation for use in violation of any patent.

Abbreviations

NA – Not Applicable	ND – Not Determined	NE – Not Established
LC – Lethal Concentration	TC – Toxic Concentration	BOD – Biological Oxygen Demand
Lo-Lowest	TLm – Threshold Limit	DOC – Dissolved Organic Carbon

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