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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 84109 STEEL WELD (HARDENER)
Item No: PTX203008B
Product Type: Epoxy hardener

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component:	Weight%	ACGIH; TLV-TWA	OSHA PEL
MERCAPTAN AMINE BLEND TSRN 679485-6533P	30-60	Not listed	Not listed
LIMESTONE 1317-65-3	30-60	Not listed	15 mg/m ³
CRYSTALLINE SILICA 14808-60-7	0.1-1.0	0.025 mg/m ³	Not listed

3. HAZARDS IDENTIFICATION

Toxicity: May cause skin burns and corneal injury resulting in permanent impairment of vision including blindness . Causes severe respiratory irritation . May cause gastrointestinal irritation. May cause skin sensitization.
Primary Routes of Entry: Eye and skin contact, ingestion, inhalation
Signs and Symptoms of Exposure: Eye irritation may be severe and result in injury. Contact causes severe skin irritation and possible burns. Can burn mouth, throat, and stomach. Repeated skin contact may cause allergic skin reactions.

Component:	Weight%	NTP	ACGIH Carcinogens	IARC Carcinogen
CRYSTALLINE SILICA 14808-60-7	0.1-1.0		A2 - Suspected Human Carcinogen	Group 1 Monograph 68, 1997 (inhalation of quartz)

Aggravated Medical Condition: Preexisting eye, skin and respiratory disorders may be aggravated by overexposure to this product.

4. FIRST AID MEASURES

Ingestion: If swallowed, do not induce vomiting - seek medical advice. Never give anything by mouth to an unconscious person.
Inhalation: Move to fresh air in case of accidental inhalation of vapours. Oxygen or artificial respiration if needed. Seek immediate medical attention.
Skin Contact: Immediately remove contaminated clothing and excess contaminant. Flush with water for at least 15 minutes. Wash thoroughly with soap and water. Consult a physician if irritation develops.
Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

5. FIRE FIGHTING MEASURES

Flash Point °F(C°): >200°F (>93°C)
Recommended Extinguishing Media: Dry chemical, Carbon dioxide, Foam
Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus and protective clothing to prevent all skin and eye contact
Hazardous Products of Combustion: Oxides of carbon, Oxides of nitrogen, Oxides of sulfur
Unusual Fire/Explosion Hazards: Irritating or toxic gases or fumes may be generated by thermal decomposition or combustion.

Lower Explosive Limit: n/d
Upper Explosive Limit: n/d

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Wear appropriate protective and respiratory equipment.

7. HANDLING AND STORAGE

Storage:	Store in a cool, dry area.
Handling:	Avoid contact with skin and eyes. Do not inhale vapors. Wash thoroughly after handling. Discard contaminated leather gloves and shoes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes:	Safety glasses
Skin:	Neoprene or nitrile gloves recommended
Ventilation:	Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
Respiratory Protection:	An approved organic vapor respirator should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Viscous liquid
Odor:	Mercaptan
Boiling Point:	n/d
pH:	Not applicable
Solubility in Water:	Negligible
Specific Gravity:	1.13
VOC(Wt.%):	0
Vapor Pressure:	<1mmHg @ 70°F
Vapor Density (Air=1):	n/d
Evaporation Rate:	n/d

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable
Hazardous Polymerization:	Will not occur
Incompatibilities:	Strong oxidizers, Acids, Reactive metals (e.g. Na, Ca, zinc), Sodium/calcium hypochlorite, Peroxides, Materials reactive with hydroxyl compounds
Conditions to Avoid:	Excessive heat
Hazardous Products of Combustion:	Oxides of carbon, Oxides of nitrogen, Oxides of sulfur

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal:	Disposal should be made in accordance with federal, state and local regulations
US EPA Waste Number:	NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

U.S. Department of Transportation - DOT - 49 CFR (Ground)

DOT Shipping Name:	Not regulated
Hazard Class:	None
UN/ID Number:	None

IATA (Air)

Proper Shipping Name:	Not regulated
Class or Division:	None
UN/ID Number:	None

IMDG (Vessel)

Proper Shipping Name:	Not regulated
Hazard Class:	None
UN Number:	None

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

Product Name: 84109 STEEL WELD (HARDENER)

Item No. PTX203008B

None

California Proposition 65: No California Prop 65 chemicals are known to be present.

TSCA Inventory Status: All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 3, FLAMMABILITY 1, REACTIVITY 0.

Estimated HMIS Classification: HEALTH 3, FLAMMABILITY 1, PHYSICAL HAZARD 0

(NFPA is a registered trademark of the National Fire Protection Association)

(HMIS is a registered trademark of the National Paint and Coatings Association)

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 84109 STEEL WELD (RESIN)
 Item No: PTX202005B
 Product Type: Epoxy resin

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component:	Weight%	ACGIH; TLV-TWA	OSHA PEL
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	30-60	Not listed	Not listed
IRON 7439-89-6	10-30	Not listed	Not listed
LIMESTONE 1317-65-3	10-20	Not listed	15 mg/m ³
ELASTOMER MODIFIED DIGLYCIDYL ETHER 68909-14-8	<5	Not listed	Not listed
SILICON 7440-21-3	<5	Not listed	15 mg/m ³
NEOPENTYL GLYCOL DIGLYCIDYL ETHER 17557-23-2	<5	Not listed	Not listed
CRYSTALLINE SILICA 14808-60-7	0.1-1.0	0.025 mg/m ³	Not listed

3. HAZARDS IDENTIFICATION

Toxicity: This material is irritating to skin, eyes and respiratory tract. May cause skin sensitization. High concentrations may cause central nervous system (CNS) depression.

Primary Routes of Entry: Eye and skin contact, ingestion, inhalation

Signs and Symptoms of Exposure: May cause pain, redness or swelling of the eyes and excessive blinking and tear production. Repeated skin contact may cause allergic skin reactions. Ingesting may cause abdominal pain and vomiting. Excessive overexposure may cause giddiness, dizziness, headache, nausea and in extreme cases, unconsciousness and respiratory depression.

Component:	Weight%	NTP	ACGIH Carcinogens	IARC Carcinogen
CRYSTALLINE SILICA 14808-60-7	0.1-1.0		A2 - Suspected Human Carcinogen	Group 1 Monograph 68, 1997 (inhalation of quartz)

Aggravated Medical Condition: Preexisting pulmonary and dermatological disorders.

4. FIRST AID MEASURES

Ingestion: If swallowed, do not induce vomiting - seek medical advice. Never give anything by mouth to an unconscious person.

Inhalation: Move to fresh air in case of accidental inhalation of vapours. If symptoms persist, call a physician.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Obtain medical attention.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point °F(C°): >200°F (>93°C)

Recommended Extinguishing Media: Dry chemical, Carbon dioxide, Foam

Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus and protective clothing to prevent all skin and eye contact

5. FIRE FIGHTING MEASURES

Hazardous Products of Combustion:

Oxides of carbon, Phenolics

Unusual Fire/Explosion Hazards:

Heating above 149°C (300°F) in the presence of air may cause slow oxidation decomposition and above 260°C (500°F) may cause polymerization.

Lower Explosive Limit:

n/d

Upper Explosive Limit:

n/d

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures:

Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Wear appropriate protective and respiratory equipment.

7. HANDLING AND STORAGE

Storage:

Store in a cool, dry area.

Handling:

Avoid contact with skin and eyes. Use in a well ventilated area. Wash thoroughly after handling. Discard contaminated leather gloves and shoes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes:

Safety glasses

Skin:

Neoprene or nitrile gloves recommended

Ventilation:

Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Respiratory Protection:

An approved organic vapor respirator should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Viscous liquid

Odor:

Mild

Boiling Point:

n/d

pH:

Not applicable

Solubility in Water:

Negligible

Specific Gravity:

1.52

VOC(Wt.%):

0

Vapor Pressure:

n/d

Vapor Density (Air=1):

>1

Evaporation Rate:

n/d

10. STABILITY AND REACTIVITY

Chemical Stability:

Stable

Hazardous Polymerization:

Will not occur

Incompatibilities:

Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines)

Conditions to Avoid:

Excessive heat

Hazardous Products of Combustion:

Oxides of carbon, Phenolics

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations**US EPA Waste Number:** NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)**U.S. Department of Transportation - DOT - 49 CFR (Ground)****DOT Shipping Name:**

Not regulated

Hazard Class:

None

Product Name: 84109 STEEL WELD (RESIN)

Item No. PTX202005B

14. TRANSPORTATION INFORMATION

UN/ID Number: None

IATA (Air)

Proper Shipping Name: Not regulated

Class or Division: None

UN/ID Number: None

IMDG (Vessel)

Proper Shipping Name: Not regulated

Hazard Class: None

UN Number: None

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

None

California Proposition 65: No California Prop 65 chemicals are known to be present.

TSCA Inventory Status: All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 1, REACTIVITY 0.

Estimated HMIS Classification: HEALTH 2, FLAMMABILITY 1, PHYSICAL HAZARD 0

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