



SAFETY DATA SHEET

TO COMPLY WITH OSHA HAZARD COMMUNICATION STANDARD 29 CFR.1910.1200 & THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Identifier

Substance Name: PROGLAS EPOXY HARDENER 4:1 FAST
Product Code(s): 100220306, 100220307, 100220308, 100220309, 100220310, 100220313, 100220315

Recommended Use: Epoxy glue

1.2 Details of the Supplier of the Safety Data Sheet

Fiberlay Inc.
1468 Northgate Blvd
Sarasota, FL 34234
T 206-782-0660
F 888-782-0662
www.Fiberlay.com

1.3 Emergency Telephone Number

Emergency Number: CHEMTREC: Domestic - 800-424-9300

2. HAZARDS IDENTIFICATION

Physical hazards	Not classified.	
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, dermal	Category 4
	Acute toxicity, inhalation	Category 2
	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation

OSHA defined hazards: Not classified

Label elements



Signal word: Danger

Hazard statement: Harmful if swallowed. Harmful in contact with skin. Fatal if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation.

Precautionary statement

Prevention: Do not breathe mist or vapor.

Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Wear respiratory protection.
Contaminated work clothing must not be allowed out of the workplace.

Response If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
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/doctor. Specific treatment is urgent (see this label).
If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

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

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

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information This product contains a compound that is classified as fatal if inhaled when aerosolized or sprayed. If product is not aerosolized or sprayed, the inhalation toxicity classification may not be applicable to your product. Please refer to section 11 for further information and review against your intended use.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures:

CHEMICAL	CAS NO.	%
Deta, reaction products with ethylene oxide	75-21-8	Proprietary
Diethylenetriamine	Proprietary	Proprietary

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The chemical identity of some or all components present is confidential business information (trade secret), and is being withheld as permitted by 29 CFR 1910.1200(i).

4. FIRST AID MEASURES

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor / physician if you feel unwell.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media Alcohol resistant foam. Powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical Closed containers may rupture violently if heated. Some curing agents when mixed with epoxy resins in large masses can produce vigorous exothermic reactions with considerable heat which may char the reactants, and released fumes and vapors from the thermal decomposition. During fire, hazardous combustion products are released that may include: Carbon oxides. Nitrogen oxides. Ammonia. Toxic fumes.

Special protective equipment and precautions for firefighter's Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Firefighting equipment/instructions Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Use water spray to reduce vapors or divert vapor cloud drift. The product is immiscible with water and will spread on the water surface.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions Avoid discharge into drains, water courses or onto the ground.

7. HANDLING AND STORAGE

Precautions for safe handling Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Store locked up. Store in original tightly closed container.

Conditions for safe storage, including any incompatibilities Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

US. ACGIH Threshold Limit Values

Components	Type	Value
Diethylenetriamine (CAS Proprietary)	TWA	1ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Diethylenetriamine (CAS Proprietary)	TWA	4 mg/m ³

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines

US - California OELs: Skin designation

Diethylenetriamine (CAS Proprietary) Can be absorbed through the skin

US - Minnesota Haz Subs: Skin designation applies

Diethylenetriamine (CAS Proprietary) Skin designation applies.

US ACGIH Threshold Limit Values: Skin designation

Diethylenetriamine (CAS Proprietary) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

Diethylenetriamine (CAS Proprietary) Can be absorbed through the skin.

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety goggles and a face shield.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be

recommended by the glove supplier.

Skin protection
Other

Wear appropriate chemical resistant clothing

Respiratory protection

No special requirements under ordinary conditions of use and with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Chemical respirator with organic vapor cartridge and full face piece.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	Liquid.
Form	Liquid
Color	Colorless
Odor	Ammoniacal
Odor threshold pH	Not available
pH	Alkaline
Melting point/freezing point	Not available.
Initial boiling point and boiling range	428 °F (220 °C)
Flash point	212 °F 100 °C)
Evaporation rate	Not available
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available
Flammability limit - upper (%)	Not available
Explosive limit - lower (%)	Not available
Explosive limit - upper	Not available
Vapor pressure	Not available
Vapor density	Not available
Relative density	Not available
Solubility (water)	Soluble
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Other Information	
Explosive properties	Not explosive
Oxidizing properties	Not oxidizing

10. STABILITY AND REACTIVITY

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions. Please read and follow all instructions.

Possibility of hazardous reactions CAUTION! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations. Reaction with peroxides may result in violent decomposition of peroxides and possibly creating an explosion.

Conditions to avoid Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials Strong acids. Peroxides. Alcohols. Sodium hypochlorite. Mineral acid. Do not use sodium nitrite or other nitrosating agents in product. Product slowly corrodes copper, aluminum, zinc, and galvanized surfaces. Oxidizing agents.

Hazardous decomposition products Nitric acid. Ammonia. Nitric oxides (NOx). Carbon oxides. Nitrosamines.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation Fatal if inhaled. This product contains a compound that is classified as fatal if inhaled when aerosolized or sprayed. If product is not aerosolized or sprayed, the inhalation toxicity classification may not be applicable to your product. Diethylenetriamine has an acute inhalation LC50 in rat >0.07-0.3 mg/l (4 hours). May cause irritation to the respiratory system. High vapor concentrations may cause drowsiness.

Skin contact Causes severe skin burns. Harmful in contact with skin. May cause an allergic skin reaction.

Eye contact Causes serious eye damage.

Ingestion Causes digestive tract burns. Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Coughing. May cause an allergic skin reaction.

Information on toxicological effects Information on toxicological effects

Acute toxicity Fatal if inhaled. Harmful in contact with skin. Harmful if swallowed. May cause respiratory irritation. May cause an allergic skin reaction.

Components	Acute	Species	Test Results
Proglas Epoxy Hardener 4:1 Fast (CAS Mixture)	Dermal LD50	Rabbit	>1090 mg/kg
	Oral LD50	Rat	>1080 mg/kg
Diethylenetriamine (CAS Proprietary)	Dermal LD50	Rabbit	550 mg/kg
	Oral LD50	Rat	2800 mg/kg

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity Not listed.

NTP Report on Carcinogens Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not regulated.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects

Specific target organ toxicity - single exposure . May cause respiratory irritation.

Specific target organ toxicity - repeated exposure Not classified

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

12. ECOLOGICAL INFORMATION

Ecotoxicity This product has not been tested for environmental effects.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (i.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. DISPOSAL CONSIDERATIONS

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

DOT

UN number	UN2735
UN proper shipping name	Amines, liquid, corrosive, n.o.s, (Diethylenetriamine, polyoxypropylenediamine)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB3, T7, TP1, TP28
Packaging exceptions	154
Packaging non bulk	203
Packaging bulk	241

IATA

UN number	UN2735
UN proper shipping name	Amines, liquid, corrosive, n.o.s, (Diethylenetriamine, polyoxypropylenediamine)
Transport Hazard Class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	III
Environmental Hazards	No
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN2735
UN proper shipping name	Amines, liquid, corrosive, n.o.s, (Diethylenetriamine, polyoxypropylenediamine)
Transport Hazard Class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	III
Environmental Hazards	
Marine pollutant	No
EmS	Not available
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

15. REGULATORY INFORMATION

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4) Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

SARA 302 Extremely hazardous substance Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting) Not regulated

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List
 Diethylenetriamine (CAS Proprietary)

US. New Jersey Worker and Community Right-to-Know Act
 Diethylenetriamine (CAS Proprietary)

US. Pennsylvania Worker and Community Right-to-Know Law
 Diethylenetriamine (CAS Proprietary)

US. Rhode Island RTK Not regulated.

US. California Proposition 65
Prop65 WARNING: This product can expose you to chemicals including ethylene oxide which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

International Inventories

Country(s) or	Inventory name	On inventory
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region		(yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. OTHER INFORMATION

HMIS® ratings 01
Health: 3
Flammability: 1
Physical hazard: 0

Proglas believes the law requires us to inform you that detectable amounts of any of the listed chemicals might be present in Proglas products. Based on a review of the list, Proglas products, like all synthetic and naturally occurring chemical substances, may conceivably contain trace contaminants of some of the listed substances. While not necessarily added to our products as ingredients, some of the listed chemicals may be present in the raw materials as received from suppliers over which we have no control.

Preparation Date: 1-5-2019

Prepared by: Kevin Aber

Comments: This Safety Data Sheet was prepared using information provided by Proglas

Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and Proglas assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.