

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: F-2000 5 MINUTE EPOXY GLUE HARDENER

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PRODUCT CLASS: EPOXY HARDENER

PRODUCT NUMBER

DESCRIPTION

100420007, 100420008, 100420009, 100420010, 100420011, 100420013

F-2000 HARDENER

SECTION I - MANUFACTURER IDENTIFICATION

Proglas
24 South Idaho Street
Seattle, WA 98134
800-942-0660
DATE PREPARED: 5/18/2015
PREPARED BY: Kevin Aber

DEPARTMENT OF TRANSPORTATION INFORMATION:
PROPER SHIPPING NAME: CORROSIVE LIQUID, N.O.S.
PROPER HAZARD CLASS: CLASS 8
PROPER I.D. #: UN 2735 PACKAGING GROUP III
TRANSPORTATION EMERGENCY PHONE NUMBER:
CHEMTREC (800) 424-9300

HMIS HAZARD RATINGS: HEALTH: 3 FIRE: 1 REACTIVITY: 0 PERSONAL PROTECTION: X

N.A. = Not Applicable N.D. = Not Determined (Not Available) N.E. = Not Established T.S. = Trade Secret

This MSDS is prepared to comply with the OSHA Hazard Communication Standard (29 CFR 1910.1200). Proprietary ingredients are considered to be trade secrets(T.S.) of Environmental Technology, Inc. Identities of proprietary ingredients will be made available following the procedures specified in the trade secret section of this standard.

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Ingredients which are hazardous chemicals, according to OSHA (29 CFR 1910.1200), are listed at 1% or above. Carcinogen are listed when at 0.1% or greater. These ingredients are subject to SARA, Title III, sections 311 and 312.

Item #)	Chemical Name	CAS #	Wt. %	AIHA TLV-TWA
1).	Alkyl Phenol	T.S.	T.S.	N.E.
2).	Alkylphenol	T.S.	T.S.	N.E.
3).	Polyethylenepolyamine	T.S.	T.S.	1 ppm 8-hr TWA
4).	Aliphatic Polyamine	T.S.	T.S.	

Notes: No OSHA nor ACGIH exposure guideline limits have been established for this product or its individual ingredients. Air contaminant concentrations must be maintained at lowest possible levels. **1).** (bisphenol A/ epichlorohydrin) epoxy resin is an epoxy resin produced by a condensation reaction of epichlorohydrin and Bisphenol A. These raw materials are consumed in the process. **No Toxic Chemicals** subject to reporting requirements of SARA section 313 Title III and 40 CFR Part 372. **No Hazardous Substances** subject to **CERCLA**, and SARA, Title III, section 304 spill reporting.

Ingredients known to the State of California to cause cancer or birth defects or other reproductive harm: None.

CANCER INFORMATION: See Section VI, CARCINOGENICITY.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

FLASHPOINT >200.1°F: (>93.4°C) Seta Closed Cup
BOILING RANGE: IBP >428°F (>220°C) (IBP = Initial Boiling Point)
APPEARANCE AND ODOR: Visous liquid with a slight odor.
SOLUBILITY IN WATER: Partial.
EVAPORATION RATE (BUTYL ACETATE =1): <1
PERCENT SOLIDS BY VOLUME: 100
VOC GRAMS/LITER: 0 VOC LBS/GAL: 0
PERCENT VOLATILE BY VOLUME: 0 % PERCENT VOLATILE BY WEIGHT: 0 %
VAPOR PRESSURE: Less than 0.13 mbar @ 68°F: (20°C)
SPECIFIC GRAVITY: 0.98 (H2O=1)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): 200.1°F, (Closed Cup).
FLAMMABLE LIMITS IN AIR BY VOLUME: LEL: N.D. UEL: N.D.
AUTO IGNITION TEMPERATURE, °F: N.D.
EXTINGUISHING MEDIA:

X FOAM, **X** ALCOHOL FOAM, **X** CO2, **X** DRY CHEMICAL, **X** WATER SPRAY, **X** OTHER(HALON).

SPECIAL FIRE FIGHTING PROCEDURES : If product is present in the fire and the threat of decomposition exist, wear self contained positive pressure breathing apparatus with full face piece. Water spray may be ineffective. However, water spray may be used to cool containers exposed to heat or fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS : Closed containers may rupture when exposed to extreme heat or fire. 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.

SECTION V - REACTIVITY DATA

STABILITY: UNSTABLE **X** STABLE

CONDITIONS TO AVOID: Strong oxidizing chemicals, strong Lewis or mineral acids, and strong mineral and organic bases, especially primary and secondary aliphatic amines. Sustained direct open flames and hot surfaces. Heating this resin above 300°F in the

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presence of air may cause slow oxidative decomposition. When product is mixed with Part B and left in a large mass a vigorous exothermic reaction may occur, and may result in charring of the reactants. Read and follow all instructions. HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Carbon monoxide, carbon dioxide, aldehydes, organic acids, and other organic substances may be formed during combustion or elevated temperature degradation. HAZARDOUS POLYMERIZATION: MAY OCCUR X MAY NOT OCCUR. CONDITIONS TO AVOID UNCONTROLLED POLYMERIZATION: N.A.

SECTION VI - HEALTH HAZARD DATA

The health effects noted below are consistent with requirements under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

HEALTH HAZARD WARNING STATEMENTS:

USE ONLY IN ADEQUATE VENTILATED AREAS. AVOID BREATHING VAPORS OR MIST. KEEP AWAY FROM CHILDREN. DO NOT TAKE INTERNALLY. AVOID CONTACT WITH EYES AND SKIN. DANGER - MATERIAL IS CORROSIVE AND COULD SEVERELY BURN SKIN, EYES, RESPIRATORY TRACT, AND LUNGS IF ASPIRATED. COULD CAUSE BLINDNESS OR DEATH IF SWALLOWED. WASH WITH SOAP AND WATER AFTER USE.

ROUTE(S) OF ENTRY : INHALATION, SKIN CONTACT, EYE CONTACT, INGESTION.

SIGNS AND SYMPTOMS OF OVEREXPOSURE :

- INHALATION: Adverse symptoms may include the following: respiratory tract irritation, coughing, wheezing and breathing difficulties, asthma.
- SKIN CONTACT: Adverse symptoms may include the following: pain or irritation, redness, blistering may occur.
- EYE CONTACT: Adverse symptoms may include the following: pain, watering, redness.
- INGESTION: Adverse symptoms may include the following: stomach pains.

EMERGENCY AND FIRST AID PROCEDURES :

Never give anything by mouth to an unconscious or convulsing person.

- EYE CONTACT:** Remove any contact lenses and flush for 15 minutes with potable water. Hold eyelids open to assure complete flushing. CONTACT A PHYSICIAN IMMEDIATELY.
- SKIN CONTACT:** Remove contaminated clothing/shoes and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. DO NOT USE SOLVENTS TO REMOVE RESIN FROM SKIN. If irritation occurs, GET MEDICAL ATTENTION. Do not reuse clothing until cleaned. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse.
- INHALATION:** Leave the area to obtain fresh air. If breathing has stopped, give artificial respiration then oxygen if needed. If difficulty breathing or other symptoms continue, CALL A PHYSICIAN IMMEDIATELY.
- INGESTION:** DO NOT INDUCE VOMITING. If patient is conscious, give 12-16 oz. of water for dilution effect only. Do not induce vomiting. CALL A PHYSICIAN IMMEDIATELY, or the Poison Control Center. Do not give anything by mouth to an unconscious or convulsing person.

IF ANY SYMPTOMS PERSIST CONTACT A PHYSICIAN

HEALTH HAZARD, ACUTE :

- INHALATION: Inhalation of high concentrations of vapors may cause irritation to the respiratory tract. Toxic if inhaled.
- SKIN CONTACT: Corrosive to the skin. Irritation, dermatitis. May cause sensitization by skin contact.
- EYE CONTACT: Corrosive to eyes. High concentrations of vapor may cause irritation of eyes.
- INGESTION: Harmful if swallowed. May cause burns to mouth, throat and stomach.

HEALTH HAZARDS, CHRONIC, (TARGET ORGANS) : Skin sensitization, from repeated exposures to low molecular weight epoxy resins. Studies show that long term ingestion may cause adverse effects to reproductive systems in animals.

CARCINOGENICITY : For hazard communication purposes under OSHA standard 29 CFR part 1910.1200. None of the products ingredients is found on the following lists.

NTP: No IARC: No Federal OSHA: No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE : Persons with pre-existing lung disorders may be more susceptible to irritating effects. Pre-existing skin and eye disorders may be aggravated by exposure to this product. Pre-existing skin and lung allergies may increase the chance of developing increased allergy symptoms from exposure to this product.

SECTION VII - SPILL, LEAK, AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED : Evacuate area. Eliminate sources of ignition. May burn although not readily ignitable. Use Protective equipment and respiratory protection as stated in Section VIII. Contain liquid or contaminated wash

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water spills using a barrier of inert material such as sand or by diking the area. Absorb spilled or contaminated wash water with an inert material. Scoop or shovel absorbed material into containers for disposal. Prevent spilled product or contaminated wash water from entering drinking water supplies, streams, or sewers. Certain releases of any substance to the environment are prohibited by law and may require reporting to an environmental agency.

WASTE DISPOSAL METHOD : This product does not meet criteria of a hazardous waste under RCRA if discarded as this product is supplied. Under RCRA, it is the responsibility of the user of products to determine, at the time of disposal, whether product meets RCRA criteria for hazardous waste. No disposal method should be used which would pose an environmental or human health threat including any which would contaminate ground or surface waters. Dispose of waste in accordance with local, state, and federal regulations. **Canada**: Dispose of waste in accordance with local, provincial and national regulations.

SECTION VIII- PRECAUTIONS FOR SAFE HANDLING AND USE

PRECAUTIONS : USE ONLY IN VENTILATED AREAS. This material should be confined as far as possible within sealed or covered equipment in which case normal ventilation should be adequate. To avoid breathing vapors during mixing, application and the drying process use local exhaust ventilation or other means to provide fresh air, opening windows and doors to achieve cross-ventilation. Air contaminant concentrations must be maintained at lowest possible levels. Close container after use, and store in upright position in a cool, dry, and well ventilated area.

OTHER PRECAUTIONS: "Empty" containers contain product residue (liquid and/ or vapor). Dispose of properly. Dust from sanding dry films should be treated as nuisance dust.

MECHANICAL (GENERAL) VENTILATION : Provide sufficient mechanical ventilation to remove vapors. Since no limits have been established for this product or its individual ingredients, air contaminant concentrations must be maintained at lowest possible levels. The need for fume hoods, local exhaust, or spray booths should be considered for commercial operations.

SPECIAL VENTILATION : Local exhaust if necessary to ventilate spill area, or where product is heated.

RESPIRATORY PROTECTION : Respiratory protection is not ordinarily required in ventilated area. Respiratory protection is required in the absence of proper environmental control. Use an approved air purifying ORGANIC VAPOR RESPIRATOR, (type NIOSH/MSHA TC-23C), or positive pressure self-contained breathing apparatus, SCBA, when products are: used in confined or poorly ventilated areas, or at elevated temperatures.

PROTECTIVE GLOVES : Chemical impervious rubber, or nitrile gloves are recommended. Avoid ALL skin contact.

EYE PROTECTION : Avoid contact with eyes. Approved safety glasses with splash guards or goggles are required.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT : Impervious clothing, foot ware, and synthetic apron to prevent skin contact are recommended. Provide nearby safety showers and eye washing (preferably full face) facilities.

WORK/HYGIENIC PRACTICES : Wash thoroughly after handling. Clean up spills. Wash contaminated clothes before reuse. Launder work clothes separate from family clothes. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse. Check protective equipment and clothing before use.

Disclaimer : All information, recommendations, and suggestions appearing herein concerning our product are based upon tests and data believed to be reliable. However, it is the user's responsibility to determine the safety, toxicity, and suitability for his or her own use of the product described herein. Since the actual use by others is beyond Proglass' control, no guarantee, expressed or implied, is made by Proglas, Inc. as to the effects of such use, the results to be obtained, or the safety and toxicity of the product.