

SAFETY DATA SHEET

Superfil Epoxy Filler Part A

1 – IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

PRODUCT NAME:	Superfil Epoxy Filler Part A Resin
PRODUCT NUMBER:	8-EF3A/8-EF4A
RECOMMENDED USE:	Aircraft coatings, fiberglass an composite coatings
RESTRICTIONS ON USE:	Not applicable
SUPPLIER:	Poly-Fiber, Inc. P.O. Box 3129, Riverside, CA 92519, USA 4343 Fort Drive, Riverside, CA 92509, USA (951) 684-4280 (951) 809-7144 (760) 782-1947
EMERGENCY TELEPHONE:	(800) 424-9300 (Chemtrec- US) (703) 527-3887 (International – Call Collect)

2 - HAZARDS IDENTIFICATION

GHS Hazard Category

Flammable liquid- N/A
Eye Irritation - Category 2A
Skin Irritation- Category 2
Respiratory Irritation- Category 3
Specific target organ toxicity (single exposure) – Category 3, Central Nervous System H336

Label Elements

Pictograms



Signal Word

DANGER

Hazard Statements

H319: Causes serious eye irritation.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H411: Toxic to aquatic life with long lasting effects
May cause drowsiness or dizziness

Precautionary Statements

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P302+352: IF ON SKIN: Wash with soap and water.
P333+313: If skin irritation or a rash occurs: Get medical advice/attention.

Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. IF ON SKIN: Wash with soap and water. If skin irritation or a rash occurs: Get medical advice/attention.

Response**INHALATION:**

Move the victim to a fresh air place immediately. Get medical attention if discomforts persist.

INGESTION:

Rinse mouth with clean water immediately. DO NOT induce vomiting. Get medical attention immediately. If vomiting occurs, keep the victim's head low so that vomits from the stomach will not enter the lungs.

SKIN CONTACT:

Remove contaminated clothing and flush the affected skin areas with clean water for at least 15 minutes. Get medical attention if discomforts persist.

EYES CONTACT:

Make sure all contact lenses are removed before flushing the eyes with eye lids open with clean water for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

Storage

Store in a well-ventilated Place. Keep container tightly closed. Keep cool. Store in a locked cabinet, cage or room.

Disposal

Dispose of contents and container in accordance with all local, regional, national and international regulations.

CLASSIFICATION (1999/45) XI, XN, N, R38, R36/38, R43, R51/53

3 – COMPOSITION /INFORMATION ON INGREDIENTS

Name	EC No.	CAS No.	Content %	Classification (67/548/EEC)
Polymer of Epichlorohydrin and Bisphenol-A	500-033-5	25085-99-8	70-80%	XN, N, R51/53, R43, R36/38, S24, S37, S61, S26, S60
Silica	231-545-4	112945-52-5	10-20%	This substance is not classified as dangerous according to Directive 67/548/EEC
Aliphatic Glycidyl Ether	271-846-8	68609-97-2	0-10%	XI, N, R38, R43, S24, S28, S37/39, S61

The Full Text for all R-Phrases and S-Phrases is displayed in Section 15

COMPOSITION COMMENTS

The data shown are in accordance with the latest EC Directives

4- FIRST AID MEASURES**NOTICE:**

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:

Breathing the vapor may irritate the nose and throat. Central nervous system effects including excitation, euphoria, contracted eye pupil, dizziness, blurred vision, fatigue, nausea, headache, loss of consciousness, respiratory arrest and sudden death could occur as a result of long term and/or high concentration exposure to vapors.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:

Contact with the skin or eyes may cause irritation. Flush skin and eyes with water for at least 15 minutes. Prolonged or repeated contact can cause moderate irritation, defatting, and/or dermatitis.

INGESTION HEALTH RISK AND SYMPTOMS OF EXPOSURE:

This product may aggravate preexisting eye, skin, heart, central nervous system and respiratory disorders.

HEALTH HAZARDS (ACUTE AND CHRONIC):

Overexposure may cause anesthesia, headache, nausea or dizziness. Breathing the vapors may irritate the nose and throat. Detectable amounts of chemicals or substances known to the state of California to cause cancer, birth defects, or other reproductive harm may be found in this product. Use care when handling chemical and petroleum products.

CARCINOGENICITY: NTP CARCINOGEN: N/A IARC MONOGRAPHS: N/A OSHA REGULATED: N/A

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE TO THIS PRODUCT:

Preexisting eye, skin, heart, central nervous system and respiratory disorders may be aggravated by exposure to this product.

EMERGENCY AND FIRST AID PROCEDURES:

Remove victim to fresh air and restore breathing if required. Call a physician. If breathing stops, give artificial respiration. Keep person warm. Never give anything by mouth to an unconscious person. Do not induce vomiting. If spontaneous vomiting occurs, keep head below hips to prevent aspiration of liquid into the lungs.

5- FIRE FIGHTING PROCEDURES

EXTINGUISHING MEDIA:

CO2, Dry chemical, Foam, Water fog.

SPECIAL FIREFIGHTING PROCEDURES:

Do not use a direct stream of water. Product may float and can be re-ignited on the surface of the water. Do not enter a confined area without full bunker gear including a positive-pressure NIOSH-approved self-contained breathing apparatus. Decomposition products may form toxic materials.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Never use welding or cutting torch on or near drum (even empty) because residue or product can ignite explosively. Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by pilot lights, flames and other ignition sources at locations distant from the material handling point.

EXTINGUISHING MEDIA:

Fire can be extinguished by using Foam, carbon dioxide, or dry powder Dry Chemicals, sand, dolomite, etc...

SPECIAL FIREFIGHTING PROCEDURES:

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6-ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Wear protective clothing as described in Section 8.

ENVIRONMENTAL PRECAUTIONS:

Spillages or uncontrolled discharges into watercourses must immediately be alerted to Environmental Agency or other appropriate regulatory authority.

SPILL CLEANUP METHODS:

Keep combustibles away from spilled material. Extinguish all ignition sources. Avoid sparks, open flames, and smoking. Ventilate. Absorb in vermiculite, dry sand, or earth and place into containers for disposal.

7-HANDLING AND STORAGE

USAGE PRECAUTIONS:

Keep away from heat, sparks and open flames. Avoid spilling, skin and eyes contact. Use with adequate ventilation and avoid excessive exposure to solvent vapors. Use approved respirator if air contamination exceeds the accepted level.

STORAGE PRECAUTIONS:

Combustible. Keep away from oxidizers, open flames and other ignition sources. Keep unused contents in original container and tightly closed lids. Store in a cool, dry and well-ventilated place and at an ambient Temperature not to exceeding above 120° F.

STORAGE CLASS:

Combustible liquid storage.

8-EXPOSURE CONTROL/PERSONAL PROTECTION

Name	Workplace Exposure Limits	Remarks
Polymer of Epichlorohydrin and Bisphenol-A	ACGIH: Not listed NIOSH: Not listed OSHA-Final PELs: Not listed	Consult local authorities for acceptable exposure limits.
Silica	ACGIH: Not listed NIOSH: Not listed OSHA-Final PELs: 20 million particles per	Same As Above

	cubic foot –OSHA Table Z-3 Mineral Dusts	
Aliphatic Glycidyl Ether	ACGIH: Not listed NIOSH: Not listed OSHA-Final PELs: Not listed	Same As Above

(*) A "skin" notation following the inhalation exposure guideline refers to the potential for dermal absorption of the material including mucous membranes and the eyes either by contact with vapors or by direct skin contact. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered. "Skin" notation based upon the possibility that the vapor limit alone may not be protective for pregnant women. There is the potential for absorption of Aminoethylethanolamine from the skin at levels that may seriously affect the fetus.

A "D-SEN" notation following the exposure guideline refers to the potential to produce dermal sensitization, as confirmed by human or animal data.

NOTICE:

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating or inhaling the contents may be harmful or fatal.

**PROTECTIVE EQUIPMENTS:****PROCESS CONDITIONS:****ENGINEERING MEASURES:****RESPIRATORY EQUIPMENT:****HANDPROTECTION:****EYE PROTECTION:****OTHER PROTECTION:****HYGIENE MEASURES:**

Provide eyewash station.

Provide adequate ventilation. Fully equipped spray booth is recommended to ensure the workers legal exposure limits are not exceeded.

Wear respirator with appropriate cartridge for organic solvents and chemicals.

Wear approved gloves such as Neoprene, Nitrile or Rubber types.

Wear splash-proof goggles.

Wear appropriate clothing to prevent any possible skin contact.

DO NOT SMOKE IN THE WORK AREA. Wash at the end of each work shift and before eating, drinking or smoking. Promptly remove contaminated clothing.

9- PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Paste
COLOR:	Light Blue
ODOR:	Aromatic solvents
BOILING POINT:	392°F
RELATIVE DENSITY:	0.61 g/mL
VAPOR DENSITY:	Heavier than air
FLASH POINT:	> 350 °F (>177 ° C) (Closed Cup)
FLAMMABILITY LIMITS:	N/A
SOLUBILITY VALUE (g/100g H ₂ O @ 20°C):	Insoluble
VOLATILE ORGANIC COMPOUND (VOC):	65.8 g/L

10- STABILITY AND REACTIVITY**STABILITY:**

Stable

CONDITIONS TO AVOID:

Heat and fires. Ignition sources.

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong alkalines or strong oxidizers. This material may dissolve some plastics, rubber compounds or coatings.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Burning may produce various phenolic compounds, CO and/or CO₂.

HAZARDOUS POLYMERIZATION:

N/A

11-TOXICOLOGICAL INFORMATION

Polymer of Epichlorohydrin and Bisphenol A (CAS#25085-99-8): Acute Toxicity Ingestion LD50, Rat > 5,000 mg/kg Dermal LD50, Rabbit 20,000 mg/kg

Inhalation As product. The LC50 has not been determined. Serious eye damage/eye irritation May cause eye irritation. Corneal injury is unlikely. Skin corrosion/irritation. Prolonged contact may cause skin irritation with local redness. Repeated contact may cause skin irritation with local redness. Sensitization Skin Has caused allergic skin reactions in humans. Did not cause allergic skin reactions when tested in mice. Respiratory: No relevant information found.

Repeated Dose Toxicity: Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects. Chronic Toxicity and Carcinogenicity: Many studies have been conducted to assess the potential carcinogenicity of diglycidyl ether of Polymer of Epichlorohydrin and Bisphenol A (DGEBA). Indeed, the most recent review of the available data by the International Agency for Research on Cancer (IARC) has concluded that DGEBA is not classified as a carcinogen.

Although some weak evidence of carcinogenicity has been reported in animals, when all of the data are considered, the weight of evidence does not show that DGEBA is carcinogenic. Developmental Toxicity: Resins based on the diglycidyl ether of Polymer of Epichlorohydrin and Bisphenol A (DGEBA) did not cause birth defects or other adverse effects on the fetus when pregnant rabbits were exposed by skin contact, the most likely route of exposure, or when pregnant rats or rabbits were exposed orally.

Reproductive Toxicity: In animal studies, did not interfere with reproduction.

Genetic Toxicology: In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.

Silica (CAS#112945-52-5): Acute toxicity (LD50/LC50-values relevant to classification):

Exposition	Value/value range	Species
oral	> 5000 mg/kg	rat (Limit Test)
dermal	> 5000 mg/kg	rabbit (Limit Test)
by inhalation	> 0.139 mg/l/4h	rat (Limit Test)

Primary irritation:

Exposition	Effect	Species/Test system
to skin	not irritating	rabbit
to eyes	not irritating	rabbit

Experience with man: By handling the product for many years no damage to health was observed.

Aliphatic Glycidyl Ether (CAS# 68609-97-2) : Routes of exposure: Inhalation, ingestion, skin and eye Symptoms: No information available Acute toxicity : LD50 ORAL:19.2g/kg (rat) LD50 DERMAL:> 4g/kg (rabbit)

Chronic Toxicity or delayed Toxicity: Causes skin irritation or sensitization.

12-ECOLOGICAL INFORMATION

Polymer of Epichlorohydrin and Bisphenol A (CAS#25085-99-8): ENVIRONMENTAL FATE: Movement & Partitioning

Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5). Potential for mobility in soil is low (Koc between 500 and 2000). Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Henry's Law Constant (H): <= 6.94E-09 atm*m3/mole; 25 °C Estimated.

Partition coefficient, n-octanol/water (log Pow): 3.7 - 3.9 Measured

Partition coefficient, soil organic carbon/water (Koc): 1,800 - 4,400 Estimated.1,800 - 4,400 Estimated.

Persistence and Degradability

Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

Indirect Photo degradation with OH Radicals

Rate Constant	Atmospheric Half-life	Method
6.69E-11 cm3/s	1.92 h	Estimated.

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method
12 %	28 d	OECD 302B Test

Theoretical Oxygen Demand: 2.35 mg/mg

ECOTOXICITY: Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested). Toxicity to aquatic species occurs at concentrations above material's water solubility.

Fish Acute & Prolonged Toxicity: LC50, fathead minnow (Pimephales promelas), 96 h: 3.1 mg/l

Aquatic Invertebrate Acute Toxicity: EC50, water flea Daphnia magna, 48 h, immobilization: 1.4 - 1.7 mg/l

Toxicity to Micro-organisms: IC50; bacteria, Growth inhibition, 18 h: > 42.6 mg/l

Silica (CAS#112945-52-5): Information on elimination (persistence and degradability) Biodegradation / further information: Not applicable.

Further information:

Insoluble in water. **Behavior in environmental compartments: Mobility -**

Further information: No adverse effects expected.

Ecotoxicological effects:

Species	Test method	Exp. Time	Result
Daphnia magna	acute	24 h	> 10000 mg/l (EC50)

Zebra fish (Brachydanio rerio) acute 96 h > 10000 mg/l (LC50)

No expected damaging effects to aquatic organisms.

Effects in sewage treatment plants (bacteria toxicity: respiration-/reproduction inhibition): According to current knowledge adverse effects on water purification plants are not expected. **Additional information: Other harmful effects:** -

General information: Insoluble in water.

Aliphatic Glycidyl Ether (CAS# 68609-97-2): Ecotoxicity: Leakage will cause environmental pollution. Persistence and degradability: No information available. Bioaccumulative potential: No information available. Mobility in soil: No information available
other adverse effect: No information available

13 – DISPOSAL CONSIDERATIONS

Hazardous wastes should be sent to a RCRA approved incinerator or disposed of in a RCRA approved waste facility. Dispose of container and unused contents in accordance with federal, state and local requirements.

I certify that all chemicals in this shipment comply with all applicable rules or orders under TSCA and that I am not offering a chemical substance for entry in violation of TSCA or any applicable rule or order under TSCA.

14 – TRANSPORT INFORMATION

DOT / ADR / RID Classification:

DOT PROPER SHIPPING NAME:	Environmentally Hazardous Substance, Liquid, N.O.S.
PRIMARY HAZARD CLASS/DIVISION:	9
UN/UA NUMBER:	UN 3082
PACKING GROUP:	III

IMDG and ADN Classification:

IMDG PROPER SHIPPING NAME:	Environmentally Hazardous Substance, Liquid, N.O.S.
IMDG UN CLASS:	9
IMDG UN NUMBER:	UN 3082
IMDG PACKING GROUP:	III
IMDG LABEL:	Miscellaneous Hazard
IMDG VESSEL STOWAGE:	A

Air shipping this product is not advised and if done must be handled by a certified carrier according to IATA rules.



GHS LABEL:

WARNING

COMBUSTIBLE LIQUID AND VAPOR. VAPOR HARMFUL. CAUSES SERIOUS EYE IRRITATION. CAUSES SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL OR FATAL IF SWALLOWED AND ENTERS AIRWAYS.

Refer to SDS for additional information on safe handling / use. - Keep out of reach of children. For Industrial Use Only.

Contains: Polymer of Epichlorohydrin and Bisphenol A (70-80%), Silica (10-20%) and Aliphatic Glycidyl Ether (0-10%). This product contains one or more chemicals known to the State of California to cause cancer, birth defects, and/or other reproductive harm.

Hazards: Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects

Precautionary Statement(s): Avoid breathing dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. IF ON SKIN: Wash with soap and water. If skin irritation or a rash occurs: Get medical advice/attention.

First Aid: Inhalation - Move person to fresh air. If symptoms occur obtain medical attention. **Skin Contact** - Wash affected skin with soap and water. If symptoms occur obtain medical attention. **Eye Contact** - If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes. If symptoms occur obtain medical attention. **Ingestion** - Do not induce vomiting. Drink one glass of water. If symptoms occur obtain medical attention.

15-REGULATORY INFORMATION

Hazards: Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects

Precautionary Statement(s): Avoid breathing dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. IF ON SKIN: Wash with soap and water. If skin irritation or a rash occurs: Get medical advice/attention.

CODES:



N



Xi and XN

N = dangerous for the environment
Xi and XN = harmful

R Phrases:

R36/38: Irritating to eyes and skin
R38: Irritating to skin
R43: May cause sensitization by skin contact
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S-Phrases:

S24: Avoid contact with skin
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S28: After contact with skin, wash immediately with plenty of water and clean with soap and water
S37: Wear suitable gloves
S37/39: Wear suitable gloves and eye/face protection
S60: This material and its container must be disposed of as hazardous waste
S61: Avoid release to the environment. Refer to special instructions/safety data sheet

16- DISCLAIMER

Above information is based on data supplied to us and is believed to be correct. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since the data made available subsequent to the date hereof may suggest modifications of the information, we do not assume responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose. It is the user's obligation to determine the safe use of it.