

Section 1 Identification

Product identifiers

Product name: TUF-Fil Aluminum

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Polyester Repair Paste

Details of the supplier of the safety data sheet

Freeman Manufacturing and Supply Company
 1101 Moore Road, Avon, OH 44011
 Phone (440) 934-1902
 FAX (440) 934-7200

HMIS	
H	2
F	3
R	1
PPE	
Sec. 8	

24 Hour emergency telephone number: CHEMTREC (800) 424-9300

Section 2 Hazards Identification

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

- Flammable liquids, Category 3
- Skin corrosion/irritation, Category 3
- Serious eye damage/eye irritation, Category 2
- Acute toxicity (Inhalation), Category 4
- Reproductive toxicity, Category 2
- Carcinogenicity, Category 2
- Specific target organ toxicity (repeated exposure), Category 1

GHS Label elements



Signal word

Danger

Hazard statements

- Flammable liquid and vapor.
- Harmful if inhaled.
- Suspected of damaging the unborn child.
- Suspected of causing cancer.
- Causes serious eye irritation.
- Causes skin irritation.
- May cause respiratory irritation.
- Causes damage to organs through prolonged or repeated exposure if inhaled.
- May be fatal if swallowed or enters airway

Section 2 Hazards Identification continued

Precautionary statements

Prevention

- Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
- Keep container tightly closed.
- Do not breathe fumes or vapors.
- Wash skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only in a well-ventilated area.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Avoid release to the environment.

Response

- If on skin: Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.
- If inhaled: Remove person to fresh air and call doctor/physician if not feeling well.
- If in eyes: Rinse continuously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. If eye irritation persists: Get medical advice/attention.

Storage

Store in a well-ventilated place. Keep cool. Keep container tightly closed.

Disposal

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

Hazards not otherwise classified (HNOC) or not covered by GHS

None known

Section 3 Composition/Information on Ingredients

Ingredient Name	CAS Number	Concentration (%)
Polyester polymer	Proprietary	10-30
Styrene monomer	100-42-5	10-30
Talc	14807-96-6	10-30
Titanium dioxide	13463-67-7	1-5
Quartz silica	14808-60-7	<0.5
N,N-Dimethylaniline	121-69-7	<0.5
N,N-Diethylaniline	91-66-7	<0.5

Section 4 First-Aid Measures

Description of first aid measures

If inhaled

Move the victim to a safe area as soon as possible. If feeling unwell, get medical attention.

In case of skin contact

Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. If irritation persists, seek medical attention. Wash contaminated clothing before reuse.

In case of eye contact

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Immediately get medical attention.

If swallowed

Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. If feeling unwell, get medical attention.

Section 4 First-Aid Measures continued

Most important symptoms and effects, both acute and delayed

See Section 2 and/or in Section 11.

Indication of any immediate medical attention and special treatment needed

See toxicological information in Section 11.

Notes to physician: Treat symptomatically.

Section 5 Fire-Fighting Measures

Suitable extinguishing media

Use dry chemical, carbon dioxide, water spray (fog), or alcohol-resistant foam.

Unsuitable extinguishing media

Do not use water jet.

Special hazards arising from the substance or mixture

In a fire or if heated, a pressure increase may occur and the container may burst, with the risk of a subsequent explosion.

Hazardous thermal decomposition products

During combustion, decomposition products may include: carbon dioxide, carbon monoxide, sulfur oxides, halogenated compounds, metal oxide/oxides

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas.

For personal protection see Section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers. Keep tightly closed.

Dispose of via a licensed waste disposal contractor.

Section 7 Handling and Storage

Precautions for safe handling

Use normal precautions when handling flammable materials. Do not breathe fumes or vapor. Do not allow material to contact skin. Provide appropriate exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from food and drink. Eliminate all ignition sources. Segregate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Section 8 Exposure Controls/Personal Protection

Components with occupational exposure limits

Ingredient	OSHA		ACGIH	
	PEL	STEL	TWA	STEL
Styrene monomer	50 ppm	100 ppm	20 ppm	40 ppm
Titanium dioxide	15 mg/m ³ (total dust)	15 mg/m ³	10 mg/m ³	Not established
Talc	2 mg/m ³ (respirable fraction)	Not established	2 mg/m ³ (respirable fraction)	Not established
N,N-Dimethylaniline	5 ppm (skin)	Not established	5 ppm	10 ppm

Appropriate engineering controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits. An eye wash station and safety shower should be located near the workstation.

Personal protective equipment

Eye/face protection

Use safety eyewear complying with an approved standard when a risk assessment indicates this is necessary. Vented goggles are recommended.

Hand Protection

Use disposable gloves to prevent skin contact. Contaminated gloves should be replaced.

Body Protection

Prevent skin contact when handling material.

Respiratory Protection

The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, use a properly fitted, air-purifying or air-fed respirator complying with an approved standard

General Hygienic Practices

Avoid breathing vapor or mist. Avoid contamination of food, beverages, or smoking materials. Wash thoroughly after handling, and before eating, drinking or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse.

Section 9 Physical and Chemical Properties

Appearance	Light gray paste
Odor	Styrene
Odor Threshold	No data available
pH	No data available
Melting Point	No data available
VOC Content	1.20 lb./gallon
Initial boiling point & boiling range	No data available
Flash Point	35°C (95°F)
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability	No data available
Vapor Pressure	No data available

Section 9 Physical and Chemical Properties continued

Vapor density	No data available
Relative density (g/cc)	1.7±0.05
Water Solubility	Negligible
Coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Viscosity	No data available
% Volatile	10-15%

Section 10 Stability and Reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions

Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

Avoid all possible sources of ignition.

Incompatible materials

Oxidizing agents

Hazardous decomposition products

Thermal oxidative decomposition can produce carbon monoxide and carbon dioxide.

Section 11 Toxicological Information

Information on toxicological effects

Acute toxicity of product

No data available

Acute toxicity of components

Ingredient	Result	Species	Dose	Exposure
Styrene	LD50 Oral	Rat	2,650 mg/kg	4 hours
	LC50 Inhalation	Rat	12,000 mg/m ³	
	LD50 Dermal	Rat	> 2,000 mg/kg	
Titanium dioxide	LD50 Oral	Rat	> 5,000 mg/kg	4 hours
	LC50 Inhalation	Rat	> 6.82 mg/l	
	LD50 Dermal	Rabbit	> 10,000 mg/kg	
N,N-Dimethylaniline	LD50 Dermal	Rabbit	1770 mg/kg	
	LD50 Oral	Rat	1120 mg/kg	
N,N-Diethylaniline	LD50 Oral	Rat	606 mg/kg	4 hours
	LC50 Inhalation	Rat	1920 mg/m ³	
	LD50 Dermal	Rat	>5000 mg/kg	

Skin corrosion/irritation

Mild skin irritant

Serious eye damage/eye irritation

Mild eye irritant

Respiratory or skin sensitization

May cause sensitization

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: Group 1: Carcinogenic to humans (Quartz silica)

Group 2B: Possibly carcinogenic to humans (Styrene).

Group 2B: Possibly carcinogenic to humans (Titanium Dioxide).

Section 11 Toxicological Information continued

NTP: Known Human Carcinogen (Quartz silica)
 Reasonably Anticipated to be a Human Carcinogen (Styrene).

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity Suspected of damaging fertility or the unborn child

Specific target organ toxicity - single exposure Possible respiratory tract irritation

Specific target organ toxicity - repeated exposure A study of long term effects of workers exposed to styrene levels in the range of 25-35 ppm, 8 hour TWA, indicated a possible mild hearing loss.

Aspiration hazard No data available

Section 12 Ecological Information

Ecotoxicity No data available on product.

The product contains following substances which are hazardous for the environment.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Fish	Microtox	Water Flea
N,N-Diethylaniline	LC50: = 38.5 mg/L, 96h (Oncorhynchus mykiss) LC50: = 16.4 mg/L, 96h flow-through (Pimephales promelas)	EC50 = 6.50 mg/L 5 min EC50 = 7.70 mg/L 15 min	EC50: = 35.4 mg/L, 24h (Daphnia magna) EC50: 1.0 - 1.6 mg/L, 48h semi-static (Daphnia magna)

Persistence and degradability No data available

Bioaccumulative potential No data available

Mobility in soil No data available

Results of PBT & vPvB assessment No data available

Section 13 Disposal Considerations

Use safety containers for disposal. Contact a licensed contractor for detailed recommendations. Follow applicable Federal, State, and local regulations.

Section 14 Transport Information

DOT

Shipping Name Polyester Resin Kit

Hazard Class: 3

ID No.: UN 3269

Packing Group: III

Label: Consumer Commodity

ORM-D (gal.)

Flammable Class 3 (3 gal.)

Section 15 Regulatory Information

Inventories

United States (TSCA): All components are listed or exempted.

Canada (DSL): All components are listed or exempted.

Section 15 Regulatory Information continued

US Federal Regulations

SARA 311/312 Codes: Refer to Section 2 of SDS

SARA 313 Toxic Chemicals (40 CFR 372.65): Styrene 100-42-5, CERCLA RQ – 1000 lb.

US State Regulations

California Prop 65: **⚠ WARNING:** This product can expose you to chemicals including Styrene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Section 16 Other Information

Disclaimer

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