

# Material Safety Data Sheet

## Freeman Tuf-Fil White

Date of Preparation: October 2, 2008

Revision:

### Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** Freeman Tuf-Fil White

**Chemical Family:** Polyester

**CAS Number:** N/A

**Other Designations:** N/A

**General Use:** N/A

**Manufacturer:** Freeman Manufacturing and Supply Company, 1101 Moore Road, Avon, OH 44011 Phone (440) 934-1902, FAX (440) 934-7200, Hours of Operation 8-5, Emergency phone number 1-800-424-9300.

**HMIS**

**H** 2

**F** 3

**R** 1

**PPE**<sup>†</sup>

<sup>†</sup>Sec. 8

### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Inhalation

Irritation, skin defatting

### Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt or % vol
Polyester Resin	Proprietary	30-40
Styrene Monomer	100-42-5	5-15
Titanium Dioxide	13463-67-7	5-10

Ingredient	OSHA PEL		ACGIH TLV		Vapor Pressure
	TWA	STEL	TWA	STEL	
Styrene Monomer	50 ppm	100 ppm	50 ppm	100 ppm	4.5 mm Hg @ 68°F
Titanium Dioxide	5 mg/m <sup>3</sup>	15 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	None estab.	N/A

### Section 3 - Physical and Chemical Properties

**Physical State:** Paste

**Appearance and Odor:** Smooth paste, pungent odor

**Odor Threshold:** N/A

**Vapor Pressure:** Not determined

**Vapor Density (Air=1):** >1.0

**VOC Content:** 1.05 lbs/gal

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 2.400

**pH:** N/A

**Water Solubility:** Insoluble

**Other Solubilities:** N/A

**Boiling Point:** N/A

**Freezing/Melting Point:** N/A

**% Volatile:** 5 – 10%

**Evaporation Rate (n-Butyl Acetate =1):** <1

### Section 4 - Fire-Fighting Measures

**Flash Point:** 95 °F (35 °C)

**Flash Point Method:** SETA Closed Cup

**Burning Rate:** N/A

**Autoignition Temperature:** N/A

**LEL:** Styrene: 1.1% v/v

**UEL:** Styrene: 6.1% v/v

**Flammability Classification:** N/A

**Extinguishing Media:** Foam, carbon dioxide, or dry chemical.

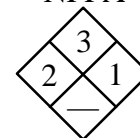
**Unusual Fire or Explosion Hazards:** Styrene will polymerize readily at elevated temperatures of fire conditions. If this occurs in a closed container, there is a possibility of violent rupture.

**Hazardous Combustion Products:** N/A

**Fire-Fighting Instructions:** None known. However, firefighters should wear self-contained breathing apparatus to avoid inhalation of smoke or vapors. Do not release runoff from fire control methods to sewers or waterways.

**Fire-Fighting Equipment:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

NFPA



## Section 5 - Stability and Reactivity

**Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization can occur in sunlight, open flames, and contamination.

**Chemical Incompatibilities:** Strong acids and oxidizing agents.

**Conditions to Avoid:** Heat and direct sunlight.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, low molecular weight hydrocarbons.

## Section 6 - Health Hazard Information

### Potential Health Effects

**Primary Entry Routes:** Inhalation, skin

#### Effects of Overexposure

**Inhalation:** Vapors may cause mucous membrane irritation and upper respiratory tract discomfort. High concentrations may result in headache, nausea, insensibility and other central nervous system effects. Repeated exposure to high concentrations may cause liver and kidney damage.

**Eye:** May cause irritation. Liquid splashes may result in more serious injuries. May cause lachrymation (tears).

**Skin:** Prolonged or frequent contact may cause defatting and dryness of the skin with resultant irritation and possible dermatitis. Styrene may be absorbed through the skin in toxic amounts.

**Ingestion:** May cause gastrointestinal disturbances, pain and discomfort.

**Carcinogenicity:** The International Agency for Research on Cancer (IARC) has classified styrene as possibly carcinogenic to humans (class 2B). The IARC 2B classification is not based on significant new evidence that styrene might be a carcinogen, but on a revised IARC classification scheme and new data on styrene oxide. IARC has classified Titanium Dioxide to be a Class 2B suspect human carcinogen

**Styrene:** LD50 (Oral/rat) 5 gm/kg; LD50 (Drml/rabbit) 2820 mg/kg; LC50 (inhl/rat) 24 gm/m<sup>3</sup>/4H

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### Emergency and First Aid Procedures

**Inhalation:** Remove victim from exposure. If victim is unconscious, administer artificial respiration and/or oxygen as needed. Seek medical aid.

**Eye Contact:** Flush with copious amounts of water for 15 minutes. Seek immediate medical aid.

**Skin Contact:** Wash with soap and water.

**Ingestion:** Do not induce vomiting (aspiration hazard.) Seek immediate medical aid.

*After first aid, get appropriate in-plant, paramedic, or community medical support.*

**Note to Physicians:** N/A

**Special Precautions/Procedures:** N/A

## Section 7 - Spill, Leak, and Disposal Procedures

**Spill /Leak Procedures:** Remove saturated clothing promptly and wash affected areas with soap and water. Remove all sources of ignition, ventilate area. Absorb with inert materials such as vermiculite or sand and place in a closed container.

**Containment:** For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

**Cleanup:** N/A

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

**Disposal:** Disposal of this material and its container, requires compliance with applicable labeling, packaging, and record keeping standards. Extreme care should be taken to ensure that it is disposed of only in a facility permitted for disposal of hazardous wastes. Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

**Disposal Regulatory Requirements:** N/A

**Container Cleaning and Disposal:** N/A

**Ecological Information:** N/A

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#### EPA Regulations:

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)

RCRA Hazardous Waste Classification (40 CFR 261.): Not classified

CERCLA Hazardous Substance (40 CFR 302.4) listed/unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec. 307(a), CAA, Sec. 112

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CERCLA Reportable Quantity (RQ), lb (kg)

SARA 311/312 Codes: For Styrene monomer: Acute, Chronic, Fire, Reactive

SARA Toxic Chemical (40 CFR 372.65): This product contains the following toxic chemical subject to the reporting requirements of Section 313 of SARA TITLE III and 40 CFR 372:

STYRENE MONOMER CAS# 100-42-5 6.9%

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ)

Canadian WHMIS Classification: B2, D2A, D2B.

**OSHA Regulations:**

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

OSHA Specifically Regulated Substance (29CFR 1910.)

**State Regulations:**

California Proposition 65: This product contains a chemical known to the State of California to cause cancer.

Styrene Oxide (CAS# 96-09-3)

**Other Regulatory Information:**

TSCA Inventory Status: All ingredients listed on TSCA Inventory.

Titanium Dioxide (CAS # 13463-67-7) and Barium Sulfate (CAS # 7727-43-7) are on the Pennsylvania Right to Know list.

## Section 8 - Exposure Controls / Personal Protection

**Engineering Controls:** N/A

**Ventilation:** Local ventilation may be required during certain operations to keep exposure levels below the TLV listed in Sections II and VI. General ventilation is required during normal use. Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Administrative Controls:** N/A

**Respiratory Protection:** A canister-type respirator must be worn to prevent the inhalation of vapors or spray mists when the TLV or PEL is exceeded. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or nonroutine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA.

**Protective Clothing/Equipment:** Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics

## Section 9 - Special Precautions and Comments

**Handling:** Avoid prolonged or repeated skin contact. Avoid inhalation of heated vapors or spray mists. Avoid improper addition of promoter and/or catalyst. A promoter and catalyst used with this product should always be mixed separately with the products and must never be mixed together.

**Storage:** Avoid storage above 100°F.

**DOT Transportation Data (49 CFR 172.101):**

**Shipping Name:** Polyester Resin Kit

**Shipping Symbols:**

**Hazard Class:** 3

**ID No.:** UN 3269

**Packing Group:**

**Label:** Consumer Commodity,  
ORM-D (gal);  
Flammable Class 3 (3 gal)

**Special Provisions (172.102):**

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**Packaging Authorizations**

a) **Exceptions:** 173.152

b) **Non-bulk Packaging:**

c) **Bulk Packaging:**

**Quantity Limitations**

a) **Passenger, Aircraft, or Railcar:**

b) **Cargo Aircraft Only:**

**Vessel Stowage Requirements**

a) **Vessel Stowage:**

b) **Other:**

**Prepared By:**

**Revision Notes:**

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