

Material Safety Data Sheet

Freeman Tuf-Carv White

Date of Preparation: January 4, 2010

Section 1 Chemical Product and Company Identification

Product/Chemical Name: Freeman Tuf-Carv 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 Sec.8.	

Section 2 Composition/Information on Ingredients

Ingredient Name	CAS Number
Polyester Resin	Proprietary
Styrene Monomer	100-42-5
Titanium Dioxide	13463-67-7

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

Section 3 Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Inhalation, Irritation, skin defatting

Potential Health Effects

Primary Entry Routes: Inhalation, skin

Acute Effects:

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 tearing.(lachrymation)

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.

Medical Conditions Aggravated by Long-Term Exposure: Skin and eye conditions.

Chronic Effects: N/A

Carcinogenicity: IARC has classified styrene as possibly carcinogenic to humans (Class 2B). IARC has classified Titanium Dioxide to be a Class 2B suspect human carcinogen

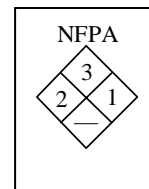
Freeman Tuf-Carv White

Section 4 First Aid Measures

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen and/or artificial respiration.
Eye Contact: Flush with plenty of water for 15 minutes and get medical attention.
Skin Contact: Wash thoroughly with soap and water. Remove contaminated clothing and launder before reuse.
Destroy contaminated shoes.
Ingestion: Do not induce vomiting. Get medical attention.

Section 5 Fire Fighting Measures

Flash Point: 95 °F (35 °C)
Flash Point Method: SETA
LEL: 1.1% by volume (styrene)
UEL: 6.1% by volume (styrene)
Extinguishing Media: Foam, water, CO₂, or dry chemical
Fire-Fighting Equipment: Use self-contained breathing apparatus.
Fire and Explosion Hazards: Decomposition and combustion products may be toxic.



Section 6 Accidental Release Measures

Spill /Leak Procedures Remove all sources of ignition (flames, hot surfaces and electrical, static, or friction sparks). Avoid breathing vapors. Ventilate area. Contain and remove with inert absorbent and non-sparking tools. Attention! Contaminated absorbent or used absorbent may heat and ignite a fire. Keep it outside and put some water in the container. When there is a spill, in presence of water, the styrene will float because specific gravity is lower than water. Styrene is weakly soluble in water. However, resin has a specific gravity higher than 1.

Section 7 Handling and Storage

Handling & Storage: Use with adequate ventilation. Avoid prolonged breathing of vapor. Avoid prolonged or repeated contact with skin. Wear safety goggles or face shield. Wear gloves, apron and footwear impervious to this material. Wash clothing before reuse. Store at ambient temperatures.(below 100°F) Keep container tightly closed and upright when not in use to prevent leakage.

Section 8 Exposure Controls/Personal Protection

Ventilation: Local exhaust recommended. General mechanical is acceptable. Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2).
Respiratory Protection: Use a NIOSH approved respirator when vapor/mist exposure is likely.
Eye Protection: Wear splash-proof chemical goggles.
Skin Protection: Wear impermeable gloves.
Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
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.

Freeman Tuf-Carv White

Section 9 Physical and Chemical Properties

Appearance and Odor: White paste, Pungent odor

Vapor Pressure: (styrene) 5 mm Hg @ 68°F

Vapor Density (Air=1): >1

Specific Gravity (H₂O=1, at 4 °C): 1.09

Water Solubility: Slight

Boiling Point: Not determined

% Volatile: 10-15 %

Evaporation Rate: Not determined

pH: Not determined

VOC Content: 1.13 Lbs/gl

Section 10 Stability and Reactivity

Stability: Unstable under certain condition

Hazardous polymerization : may occur with an exothermic reaction.

Conditions to avoid : elevated temperatures. Improper addition of promoter and/or catalyst. Avoid direct contact of methyl ethyl ketone peroxide catalyst (MEKP) with accelerator(cobalt, calcium, potassium's salts). If an accelerator such as cobalt drier has to be added, mix this accelerator with base material before adding catalyst.

Incompatibility : oxidizers, peroxides, strong acids. Hazardous decomposition products: thermal decomposition or combustion can produce fumes containing organic acids, carbon dioxide and carbon monoxide.

Section 11 Toxicological Information

Acute Inhalation Exposure Effects: Irritation to nose and throat. Extended or repeated exposure to concentrations above the recommended exposure limits may cause brain or nervous system depression, with symptoms such as dizziness, headache or nausea and if continued indefinitely, loss of consciousness, liver and kidney damage.

Skin Irritation: Irritation, can cause defatting of skin which may lead to dermatitis.

Eye Irritation: Irritation, tearing, redness, discomfort

Carcinogenicity: The International Agency for Research on Cancer (IARC) has classified styrene as possibly carcinogenic to humans (Class 2B). IARC has classified Titanium Dioxide to be a Class 2B suspect human carcinogen

Styrene: LD₅₀ (Oral/Rat)5 gm/kg; LD₅₀ (Dermal/Rabbit) 2820 Mg/Kg; LC₅₀ (Inhalation Rat) 5000 ppm/ 8 hours

Section 12 Ecological Information

No Known evidence of adverse effects from available information

Section 13 Disposal Considerations

Disposal: Use safety containers for disposal. Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations

Freeman Tuf-Carv White

Section 14 Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Polyester Resin Kit

Shipping Symbols:

Hazard Class: 3

ID No.: UN 3269

Packing Group: III

Label: Consumer Commodity,

ORM-D (gal);

Flammable Class 3 (3 gal)

Special Provisions (172.102):
Packaging Authorizations

a) **Exceptions:** 173.152

b) **Non-bulk Packaging:**

c) **Bulk Packaging**

Section 15 Regulatory Information

US Federal Regulations:

OSHA (Occupational Safety and Health Act): This Material Safety Data Sheet has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

RCRA (Resource Conservation and Recovery Act): Not a hazardous waste under RCRA (40 CFR 261).

SARA 311/312 Codes: Acute Health Hazard, Chronic Health Hazard, Fire Hazard

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 of 1986 and of 40 CFR 372.

None

TSCA Inventory Status: All ingredients listed on the TSCA inventory..

State Regulations:

CA Proposition: No component listed

Styrene (100-42-5) is listed on the New Jersey and Pennsylvania Right to Know Lists

Talc (CAS # 14807-96-6) and Titanium Dioxide (CAS #13463-67-7) are on the New Jersey and Pennsylvania Right to Know Lists.

Section 16 Other Information

Disclaimer: The following supersedes Buyer's documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict of liability arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled lab work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.

Material Safety Data Sheet

Freeman Cream Hardener (Tubed)

Date of Preparation: April 14, 2009

Section 1 Chemical Product and Company Identification

Product/Chemical Name: Freeman Cream Hardener (Tubed)
Chemical Family: Peroxide
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	2
R	2
PPE Sec.8.	

Section 2 Composition/Information on Ingredients

Ingredient Name	CAS Number	% wt or % vol
Benzoyl Peroxide	94-36-0	45-55

Ingredient	OSHA		ACGIH	
	PEL	STEL	TLV	STEL
Benzoyl Peroxide	5 mg/m ³	none estab.	5 mg/m ³ **	none estab.

** Combustible when dry.

Section 3 Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Irritant

If allowed to dry out, combustible

Potential Health Effects

Primary Entry Routes: Inhalation, skin

Target Organs: N/A

Acute Effects

Inhalation: Inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and/or asphyxiation. Aspiration of material into lungs may result in chemical pneumonitis, which can be fatal.

Eye: Contact with eyes can cause irritation, redness, tearing, blurred vision, and/or swelling.

Skin: Contact with skin can cause irritation, (minor itching, burning, and/or redness), dermatitis, defatting may be readily absorbed through skin.

Ingestion: Ingestion can cause gastrointestinal irritation, nausea, vomiting, diarrhea. Benzoyl Peroxide has caused tumorigenic effects in laboratory animals.

Carcinogenicity: IARC, NTP, and OSHA do not list any component as carcinogenic.

Medical Conditions Aggravated by Long-Term Exposure: N/A

Chronic Effects: Overexposure to this material has apparently been known to cause the following effects in lab animals: skin damage and appendages.

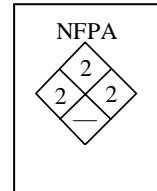
Freeman Cream Hardener (Tubed)

Section 4 First Aid Measures

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen and/or artificial respiration.
Eye Contact: Flush with plenty of water for 15 minutes and get medical attention.
Skin Contact: Wash thoroughly with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes.
Ingestion: If conscious, give 2-4 glasses of water to drink. Do not induce vomiting. Get medical attention.

Section 5 Fire Fighting Measures

Flash Point: 184°F (84 °C)
Flash Point Method: SETA Flash CC
LEL: Not established
UEL: Not established
Extinguishing Media: Foam, CO2, or dry chemical
Unusual Fire or Explosion Hazards: Closed containers exposed to high temperatures, such as fire conditions may rupture.
Hazardous Combustion Products: N/A
Fire-Fighting Instructions: Fight like a fuel oil fire. Cool fire exposed containers with water spray. Firefighter should wear OSHA/NIOSH approved self-contained breathing apparatus. 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 facepiece operated in pressure-demand or positive-pressure mode.



Section 6 Accidental Release Measures

Spill /Leak Procedures: Ventilate area. Remove all possible sources of ignition. Avoid prolonged breathing of vapor. Contain spill with inert absorbent.

Section 7 Handling and Storage

Handling & Storage: Use with adequate ventilation. Avoid contact with eyes and skin. Avoid breathing vapors. Do not store the product above 100°F/38°C. Do not flame, cut, braze weld or melt empty containers. Keep the product away from heat, open flame, and other sources of ignition. Avoid contact with strong acids, alkalis, and oxidizers.

Section 8 Exposure Controls/Personal Protection

Ventilation: Local exhaust recommended. General mechanical is acceptable. Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2).
Respiratory Protection: Use a NIOSH approved respirator when vapor/mist exposure is likely.
Eye Protection: Wear splash-proof chemical goggles.
Skin Protection: Wear impermeable gloves.
Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
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.

Freeman Cream Hardener (Tubed)

Section 9 Physical and Chemical Properties

Physical State: Paste	pH: N/A
Appearance and Odor: White with mild odor	Water Solubility: Insoluble
Vapor Density (Air=1): >1.0	Boiling Point: Decomposes
VOC: grams/liter= Nil	Freezing/Melting Point: Decomposes
Specific Gravity (H₂O=1, at 4 °C): 1.20	% Volatile: By weight 10 – 20%
	Evaporation Rate (Ethyl Ether = 1): <1

Section 10 Stability and Reactivity

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

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities: Strong acids, alkalis, oxidizers.

Conditions to Avoid: Open flames, sparks, heat, electrical and static discharge.

Hazardous Decomposition Products: Thermal oxidative decomposition of Freeman Cream Hardener (Tubed) can produce carbon dioxide, carbon monoxide, and carbon

Section 11 Toxicological Information

Acute Inhalation Exposure Effects: Respiratory irritant.

Skin Irritation: Irritant.

Eye Irritation: Irritant.

Carcinogenicity: IARC, NTP, and OSHA do not list any component as carcinogenic.

Section 12 Ecological Information

No Known evidence of adverse effects from available information

Section 13 Disposal Considerations

Disposal: Dispose of in safety containers as a solid water material. Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations

Section 14 Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Organic Peroxide Type E, Solid	Packaging Authorizations	Quantity Limitations
Shipping Symbols:	a) Exceptions: 173.152	a) Passenger, Aircraft, or Railcar:
Hazard Class: 5.2	b) Non-bulk Packaging:	b) Cargo Aircraft Only:
ID No.: UN 3108	c) Bulk Packaging:	Vessel Stowage Requirements
Packing Group: II		a) Vessel Stowage:
Label: Consumer Commodity, ORM-D		b) Other:
Special Provisions (172.102):		

Freeman Cream Hardener (Tubed)

Section 15 Regulatory Information

US Federal Regulations:

OSHA (Occupational Safety and Health Act): This Material Safety Data Sheet has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

RCRA (Resource Conservation and Recovery Act): Not a hazardous waste under RCRA (40 CFR 261).

SARA 311/312 Codes: Acute Health, Fire.

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:

BENZOYL PEROXIDE	CAS # 94-36-0	47.5 – 50.0%
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TSCA Inventory Status: All ingredients listed on TSCA inventory requirements.

State Regulations:

California Proposition 65: Trace amounts of some chemicals known to the State of California to cause cancer, birth defects or other reproductive harm may be present in this product.

Benzoyl Peroxide (CAS # 94-36-0) is found on the New Jersey, Pennsylvania, and Massachusetts Right to Know Lists.

Section 16 Other Information

Disclaimer: The following supersedes Buyer's documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict of liability arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled lab work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.