

Material Safety Data Sheet

Freeman 1020 Tooling Foam Hardener

Date of Preparation: January 3, 2007

Revision:

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Freeman 1020 Tooling Foam Hardener

Chemical Family: Epoxy Hardener

CAS Number: 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 800-424-9300

HMIS
H 2
F 1
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PPE †
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☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Irritant

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number
Epoxy Amine Adduct	Proprietary
Triethylenetetramine Glycidyl Neodeconate	26761-45-5

Ingredient	OSHA PEL		ACGIH TLV	
	TWA	STEL	TWA	STEL
Epoxy Amine Adduct	none estab.	none estab.	none estab.	none estab.
Triethylenetetramine Glycidyl Neodeconate	none estab.	none estab.	none estab.	none estab.

Section 3 - Physical and Chemical Properties

Appearance and Odor: Brownish paste with sassafras odor

Vapor Pressure: <1 mm Hg at 20 °C

Vapor Density (Air=1): N/A

Specific Gravity (H₂O=1, at 4 °C): <1

Water Solubility: Somewhat Miscible

Boiling Point: >250 F

% Solid by weight: 34%

% Volatile by volume: 0%

Analytical: 3.66 lbs/gal

Section 4 - Fire-Fighting Measures

Flash Point: >220 °F(> 104°C)

Flash Point Method: PMCC

LEL: Not established

UEL: Not established

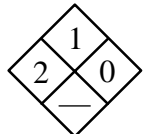
Extinguishing Media: Water, fog, foam, dry chemical, CO²

Unusual Fire or Explosion Hazards: Container areas exposed to intense heat or flame should be cooled with water to prevent pressure build-up and/or weakening of container structure.

Special Fire-Fighting Procedures: Do not enter confined fire space without full protective gear including a positive pressure, self-contained, NIOSH approved breathing apparatus. Cool fire exposed container with water.

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.

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Section 5 - Stability and Reactivity

Stability: Stable

Conditions to Avoid: Avoid high temperatures, open flames, and unscheduled contact with curing agents.

Incompatibility (Materials to Avoid): Incompatible with strong oxidizing agents, strong acids and bases, secondary aliphatic amines and mercaptans.

Hazardous Decomposition Products: Carbon dioxide (CO²), carbon monoxide (CO), by products may include oxides of nitrogen (NOX) when burned.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Avoid mixing resin and hardener in uncontrollable quantities.

Section 6 - Health Hazard Information

Potential Health Effects

Primary Entry Routes: Inhalation and skin contact

Effects of Overexposure:

Inhalation: Vapor is irritating to the upper respiratory system and mucous membranes.

Eye Contact: Product can cause severe eye irritation, swelling and/or chemical burn. Contact lenses should not be worn when working with this material.

Skin Contact: Skin contact may result in irritation or chemical burn.

Ingestion: Liquid causes damage to mucous membrane if swallowed.

Carcinogenicity: IARC, NTP, and OSHA – This material is neither carcinogenic nor potentially carcinogenic.

Emergency and First Aid Procedures

Inhalation: Remove victim to fresh air.

Eyes: Flush eyes with generous amounts of water for at least 15 minutes. **GET MEDICAL ATTENTION IMMEDIATELY.**

Skin: Immediately wash skin with soap and water. Wash contaminated clothing before use.

Ingestion: If swallowed do not induce vomiting. Give large amounts of water or milk if available. Call a physician. Treatment based on judgment of the physician in response to reactions of the patient.

Section 7 - Spill, Leak, and Disposal Procedures

Spill /Leak Procedures in Case Material is Released or Spilled: Use cautious judgment when cleaning spills. Small spills may be collected with adsorbent material, such as clay or sand. Large spills should be diked and contained with absorbent materials. Flush area with water spray to remove residue. Dispose of flush legally.

Waste Disposal Methods: Dispose in accordance with local, state and federal regulations.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls: N/A

Ventilation: Use only with adequate ventilation. Local exhaust is recommended. Mechanical exhaust can be used as a back up system.

Respiratory Protection: Wear NIOSH approved respiratory protection where exposure limits are exceeded or in the absence of proper environmental control.

Protective Gloves: Chemical resistant gloves such as PVA.

Eye Protection: NIOSH approved safety glasses or goggles with side shields.

Other Protective Clothing or Equipment: Chemical resistant clothing as required to minimize skin contact.

Section 9 - Special Precautions and Comments

Precautions to be Taken in Handling and Storage: Store at ambient temperatures in well ventilated area. Avoid sparks, open flames, and extreme heat. Store separately from amine curing agents. Protect container from physical damage.

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Other Precautions: Container, even those that have been emptied, can contain product residues. Handle in accordance with good industrial practices. Avoid prolonged or repeated contact with skin. Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing before use.

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Plastic Material, Foam
NOIBN

Shipping Symbols:

Hazard Class: Not Restricted

ID No.:

Packing Group:

Label:

Special Provisions (172.102):

Packaging Authorizations

a) **Exceptions:**

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:**

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