

**Section 1 Identification**

**Product identifiers**

Freeman 1220 Part A (Resin)

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

High density epoxy resin. For professional/industrial use only.

**Details of the supplier of the safety data sheet**

Freeman Manufacturing & Supply Company  
1101 Moore Road, Avon, OH 44011-4043 US  
Telephone: +1 (440) 934-1902  
Email: contactus@freemansupply.com

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

**Section 2 Hazards Identification**

**Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)**

Skin Irritant, Category 2  
Skin Sensitizer, Category 1  
Eye Irritant, Category 2A  
Aquatic Chronic, Category 2

**Label elements**



Warning

**Hazard Statements**

H315 May be harmful in contact with skin.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H411 Toxic to aquatic life with long lasting effects.

**Precautionary Statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear protective gloves, clothing, and eye/face protection.  
P302 + P352 IF ON SKIN: wash with plenty of soap and water  
RESPONSE: P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
P333+P313 If skin irritation or rash occurs: Get medical attention.  
P337+P313 If eye irritation persists: Get medical attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P391 Collect spillage.  
P501 Dispose of contents/container in accordance to Federal rules, laws and regulations.

**Section 3 Composition/Information on Ingredients**

Ingredient Name	CAS Number	Concentration (%)
4,4'-Isopropylidenediphenol- Epichlorohydrin Copolymer	25068-38-6	30-60

Freeman 1220 Part A (Resin)

**Section 4 First Aid Measures**

**Inhalation:** Move to an area free from further exposure. Extreme asthmatic reactions may occur in sensitized persons can be life threatening. Get medical attention immediately. Administer oxygen or artificial respiration as needed. Asthmatic symptoms may develop and may be immediate or delayed up to several hours.

**Eyes:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek immediate medical attention.

**Skin:** Flush skin with plenty of water for at least 5 minutes while removing contaminated clothing and shoes. Wash thoroughly with soap and water. Get medical attention if irritation or rash develops on affected area. Wash clothing before reuse.

**Ingestion:** Call a physician immediately. Rinse mouth and drink plenty of water. Do not induce vomiting. Remove stomach contents only as directed by medical personnel. Never give anything by mouth to an unconscious person.

**Section 5 Fire-Fighting Measures**

**Extinguishing media**

Foam, carbon dioxide, dry chemical, water spray. DO NOT use a direct water stream.

**Hazardous thermal decomposition products**

Nitrous gases, fumes/smoke, vapor

**Advice for firefighters**

Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and consider use of unmanned hose holders or monitor nozzles for fighting large fires. Cool fire exposed containers with water spray. Remove containers from the fire area if possible. Do not release runoff from fire control methods to sewers or waterways.

**Section 6 Accidental Release Measures**

**Personal precautions, protective equipment, and emergency procedures**

Evacuate unnecessary personnel. Wear suitable personal protection, see section 8.

**Environmental precautions**

Prevent migration into groundwater, sewers, or streams. Land spills may require excavation of contaminated soil. Material should not be released into the environment.

**Methods and materials for containment and cleaning up**

Shovel into open container. Do not make container pressure tight. Move container to well ventilated area (outside). Spill area can be decontaminated with the following recommended decontamination solution: Mixture of 90% water, 8% concentrated ammonia, 2% detergent. Add at a 10:1 ratio. Allow to stand for at least 48 hours to allow escape of evolved carbon dioxide.

Residues: The following measures should be taken for final clean-up: Wash down spill area with decontamination solution. Allow solution to stand for at least 10 minutes. Dike spillage.

**Section 7 Handling and Storage**

**Precautions for safe handling**

Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Avoid breathing vapor over open containers. Avoid open container exposure to damp air. Avoid breathing aerosols, mists, and vapors. Use appropriate personal protective equipment as specified in Section 8. Handle in a well ventilated area. Handle and use in a manner consistent with good industrial/manufacturing techniques and practices.

## Freeman 1220 Part A (Resin)

### Section 7 Handling and Storage

**Conditions for safe storage, including any incompatibilities**

Store material at ambient temperatures (64°F – 84°F) and pressure. Keep away from sources of direct heat and moisture. Keep container tightly closed when not in use, and seal with nitrogen blanket. Moisture contamination may evolve carbon dioxide gas, which may cause containers to pressurize. Material is stable under normal conditions. Segregate from bases.

### Section 8 Exposure Controls/Personal Protection

**Components with workplace control parameters**

None established.

**Appropriate engineering controls**

Good general ventilation is sufficient for most conditions. Airborne concentrations should be kept to lowest levels possible. Avoid breathing mists. If general ventilation or local exhaust is inadequate; persons exposed to mists, vapors, or dusts should wear appropriate NIOSH/MSHA approved breathing devices.

**Personal protective equipment**

**Eye/face protection:** Safety glasses with side shields / splash proof goggles

**Skin/body protection:** Use chemical resistant gloves (i.e. nitrile, latex, butyl rubber). Impervious clothing, including but not limited to apron, full body suit, chemical resistant shoes or shoe covers. Use long sleeves at a minimum.

**Respiratory protection:** No respiratory protection should be needed at room temperature. Avoid breathing vapors of heated material. NOTE: If grinding or sanding cured material use NIOSH or OSHA approved respiratory protection.

**Safety stations**

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

**General hygienic practices**

Avoid breathing vapor or mist. 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

<b>Physical appearance/state</b>	Gray paste
<b>Odor</b>	Slight aromatic epoxy odor
<b>Odor threshold</b>	No data available
<b>pH</b>	No data available
<b>Boiling point</b>	No data available
<b>Flash point</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Vapor pressure (Pa)</b>	No data available
<b>Vapor density (Air = 1)</b>	Not available
<b>Specific gravity (g/cm<sup>3</sup>)</b>	1.3
<b>Coefficient of water/oil distribution</b>	Not available
<b>Solubility</b>	Not soluble in water
<b>Volatile organic compounds (VOC) content</b>	0 g/L

Freeman 1220 Part A (Resin)

**Section 10 Stability and Reactivity**

**Chemical stability:** This product is stable under normal ambient conditions of temperature and pressure.  
**Conditions to avoid:** Avoid moisture, extreme temperatures, and contact with incompatible materials.  
**Incompatible materials:** Alcohols, amines, strong oxidizing agents, bases, acids, and epoxy hardeners.  
**Hazardous decomposition:** Carbon oxides, Aldehydes; Acids

**Section 11 Toxicological Information**

**Acute Toxicity Data**

Ingredient Name	Oral LD50 (rats)	Dermal LD50 (rats)
4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer (CAS 25068-38-6)	11,400 mg/kg	2,000 mg/kg

**Potential acute and chronic health effects**

**Skin Corrosion/Irritation:** Prolonged or repeated contact may cause skin irritation with local redness.  
**Respiratory Sensitization:** Not available  
**Skin Sensitization:** Repeated exposure may cause skin sensitization  
**Carcinogenicity:** Not listed as a carcinogen by NTP, IARC, OSHA and ACGIH  
**Germ Cell Mutagenicity:** Not available  
**Reproductive Toxicity:** Not available  
**Aspiration Toxicity:** Not likely to present a hazard.

**Section 12 Ecological Information**

**Ecotoxicity:** No data available on product

Ingredient Name	Acute LC50	Acute EC50	Acute NOEC	Acute LC50
Bisphenol-A-(epichlorohydrin); epoxy resin (number average molecular weight ≤ 700)	1.3 mg/l 203 Fish, Acute Toxicity Test, Fish (96 h)	2.1 mg/l 202 Daphnia sp. Acute Immobilization Test and Reproduction Test Aquatic invertebrates. Water flea (48 h)	0.3 mg/l Daphnia Magna Reproduction Test Aquatic invertebrates. Water flea (21 d)	> 11 mg/l Aquatic plants – Algae (72 h)

**Persistence and degradability:** Material not readily biodegradable  
**Bioaccumulative potential:** No data available  
**Mobility in soil:** No data available  
**Results of PBT & vPvB assessment:** No data available

**Section 13 Disposal Considerations**

Follow all applicable local, state, and federal disposal regulations. Spillage in sewers or watercourses is not allowed. The residues, including the empty containers, must be eliminated in a controlled manner. The treatment must be carried out in a licensed facility. Do not burn or cut open with gas or electric torch as toxic decomposition products may be liberated. Do not reuse empty containers.

**Section 14 Transport Information**

**DOT/IMDG/IATA:** Not classified as a dangerous good under transport regulations.

**Section 15 Regulatory Information**

**TSCA:** All ingredients are on the TSCA Chemical Substance Inventory, or are not required to be listed.

**DSL:** The substance(s) in this product is/are on the Canadian Domestic Substances List.

**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):** ⚠️ **WARNING:**

This product contains less than 0.1% of Oxirane, 2-(phenoxyethyl), a chemical which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

CAS 122-60-1, No significant risk level: 5 µg/day

**Section 16 Other Information**

**HMIS III**

Health = 2 (chronic), Fire = 1, Physical Hazard = 0

**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.

Date of initial release: February 25, 2025

Date of previous revision: February 25, 2025

Current revision date: May 1, 2025

Freeman 1220 Part B (Hardener)

Section 1 Identification

**Product identifiers**

Freeman 1220 Part B (Hardener)

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

High density epoxy hardener. For professional/industrial use only.

**Details of the supplier of the safety data sheet**

Freeman Manufacturing & Supply Company  
1101 Moore Road, Avon, OH 44011-4043 US  
Telephone: +1 (440) 934-1902  
Email: contactus@freemansupply.com

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

Section 2 Hazards Identification

**Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)**

Acute Toxicity, Oral, Category 4  
Acute Toxicity, Dermal, Category 4  
Skin Sensitization, Category 1  
Skin Corrosion/Irritation, Category 2  
Acute Aquatic Toxicity, Category 2

**Label elements**



Warning

**Hazard Statements**

H302: Harmful if swallowed  
H312: Harmful in contact with skin  
H315: Causes skin irritation  
H317: May cause an allergic skin reaction  
H401: Hazardous to the aquatic environment, acute hazard

**Precautionary Statements**

P260: Do not breathe dust/fume/gas/mist/vapours/spray.  
P264: Wash hands thoroughly after handling  
P270: Do not eat, drink or smoke when using this product.  
P271: Use only outdoors or in a well-ventilated area  
P273: Avoid release to the environment.  
P280: Wear protective gloves/protective clothing/eye protection.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P370+P378 - In case of fire: Use appropriate media for extinction  
P302+P353: IF ON SKIN: Wash with plenty of soap and water for extinction  
P391: Collect spillage  
P235: Store in well ventilated place. Keep cool.  
P501: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## Freeman 1220 Part B (Hardener)

### Section 3 Composition/Information on Ingredients

Ingredient Name	CAS Number	Concentration (%)
Tetraethylenepentamine	112-57-2	0-5

### Section 4 First Aid Measures

**Inhalation:** Move to an area free from further exposure. Extreme asthmatic reactions may occur in sensitized persons can be life threatening. Get medical attention immediately. Administer oxygen or artificial respiration as needed. Asthmatic symptoms may develop and may be immediate or delayed up to several hours.

**Eyes:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek immediate medical attention.

**Skin:** Flush skin with plenty of water for at least 5 minutes while removing contaminated clothing and shoes. Wash thoroughly with soap and water. Get medical attention if irritation or rash develops on affected area. Wash clothing before reuse.

**Ingestion:** Call a physician immediately. Rinse mouth and drink plenty of water. Do not induce vomiting. Remove stomach contents only as directed by medical personnel. Never give anything by mouth to an unconscious person.

### Section 5 Fire-Fighting Measures

**Extinguishing media**

Foam, carbon dioxide, dry chemical, water spray. DO NOT use a direct water stream.

**Hazardous thermal decomposition products**

Nitrous gases, fumes/smoke, vapor

**Advice for firefighters**

Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and consider use of unmanned hose holders or monitor nozzles for fighting large fires. Cool fire exposed containers with water spray. Remove containers from the fire area if possible. Do not release runoff from fire control methods to sewers or waterways.

### Section 6 Accidental Release Measures

**Personal precautions, protective equipment, and emergency procedures**

Evacuate unnecessary personnel. Wear suitable personal protection, see section 8.

**Environmental precautions**

Prevent migration into groundwater, sewers, or streams. Land spills may require excavation of contaminated soil. Material should not be released into the environment.

**Methods and materials for containment and cleaning up**

Shovel into open container. Do not make container pressure tight. Move container to well ventilated area (outside). Spill area can be decontaminated with the following recommended decontamination solution: Mixture of 90% water, 8% concentrated ammonia, 2% detergent. Add at a 10:1 ratio. Allow to stand for at least 48 hours to allow escape of evolved carbon dioxide.

Residues: The following measures should be taken for final clean-up: Wash down spill area with decontamination solution. Allow solution to stand for at least 10 minutes. Dike spillage.

## Freeman 1220 Part B (Hardener)

### Section 7 Handling and Storage

#### Precautions for safe handling

Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Avoid breathing vapor over open containers. Avoid open container exposure to damp air. Avoid breathing aerosols, mists, and vapors. Use appropriate personal protective equipment as specified in Section 8. Handle in a well ventilated area. Handle and use in a manner consistent with good industrial/manufacturing techniques and practices.

#### Conditions for safe storage, including any incompatibilities

Store material at ambient temperatures (64°F – 84°F) and pressure. Keep away from sources of direct heat and moisture. Keep container tightly closed when not in use, and seal with nitrogen blanket. Moisture contamination may evolve carbon dioxide gas, which may cause containers to pressurize. Material is stable under normal conditions. Segregate from bases.

### Section 8 Exposure Controls/Personal Protection

#### Components with workplace control parameters

Ingredient Name	ACGIH (TLV) (8 hr)	OSHA - TWA
Tetraethylenepentamine	5 mg/m <sup>3</sup>	None established

#### Appropriate engineering controls

Good general ventilation is sufficient for most conditions. Airborne concentrations should be kept to lowest levels possible. Avoid breathing mists. If general ventilation or local exhaust is inadequate; persons exposed to mists, vapors, or dusts should wear appropriate NIOSH/MSHA approved breathing devices.

#### Personal protective equipment

**Eye/face protection:** Safety glasses with side shields / splash proof goggles

**Skin/body protection:** Use chemical resistant gloves (i.e. nitrile, latex, butyl rubber). Impervious clothing, including but not limited to apron, full body suit, chemical resistant shoes or shoe covers. Use long sleeves.

**Respiratory protection:** No respiratory protection should be needed at room temperature. Avoid breathing vapors of heated material. NOTE: If grinding or sanding cured material use NIOSH or OSHA approved respiratory protection.

#### Safety stations

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

#### General hygienic practices

Avoid breathing vapor or mist. 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

<b>Physical appearance/state</b>	Brown paste
<b>Odor</b>	Slight ammonia-like odor
<b>Odor threshold</b>	No data available
<b>pH</b>	No data available
<b>Boiling point</b>	>300°F (>148°C)
<b>Flash point</b>	>300°F (>148°C)
<b>Evaporation rate</b>	No data available
<b>Vapor pressure (Pa)</b>	Not available
<b>Vapor density (Air = 1)</b>	No data available
<b>Specific gravity (g/cm<sup>3</sup>)</b>	1.3

## Freeman 1220 Part B (Hardener)

### Section 9 Physical and Chemical Properties

<b>Coefficient of water/oil distribution</b>	Not available
<b>Solubility</b>	Partial in water
<b>Volatile organic compounds (VOC) content</b>	0 g/L

### Section 10 Stability and Reactivity

**Chemical stability:** This product is stable under normal ambient conditions of temperature and pressure.  
**Conditions to avoid:** Strong oxidizer, Keep away from heat, sparks, flame and other ignition sources.  
**Incompatible materials:** Strong oxidizing agents.  
**Hazardous decomposition:** Under normal conditions of storage and use, hazardous decomposition products should not be produced. Heating this substance above 300°F in the presence of air may cause slow oxidative decomposition; above 500°F polymerization may occur. Some combinations of resins and curing agents can produce exothermic reactions which in large masses can cause runaway polymerization and charring of the reactants. Fumes and vapors from the thermal and chemical decompositions vary widely in composition and toxicity.

### Section 11 Toxicological Information

#### Acute Toxicity Data

Ingredient Name	Oral LD50 (rats)	Dermal LD50 (rabbits)
Tetraethylenepentamine	3,990 mg/kg	660 mg/kg

#### Potential acute and chronic health effects

**Skin Corrosion/Irritation:** Repeated skin contact may cause persistent irritation or dermatitis.  
**Respiratory Irritation/Sensitization:** Repeated inhalation may cause lung damage. Overexposure to vapor, dust or mist may aggravate existing respiratory conditions, such as asthma, bronchitis, and inflammatory or fibrotic respiratory disease.  
**Skin Sensitization:** Skin contact may cause sensitization and an allergic skin reaction and may aggravate an existing dermatitis. Cross-sensitization may occur by skin contact with this material and other amines.  
**Carcinogenicity:** Not available  
**Germ Cell Mutagenicity:** Not available  
**Reproductive Toxicity:** Not available  
**Aspiration Toxicity:** May occur during swallowing or vomiting, resulting in lung damage.

### Section 12 Ecological Information

**Ecotoxicity:** No data available on product  
**Persistence and degradability:** Material not readily biodegradable  
**Bioaccumulative potential:** No data available  
**Mobility in soil:** No data available  
**Results of PBT & vPvB assessment:** No data available

### Section 13 Disposal Considerations

Follow all applicable local, state, and federal disposal regulations. Spillage in sewers or watercourses is not allowed. The residues, including the empty containers, must be eliminated in a controlled manner. The treatment must be carried out in a licensed facility. Do not burn or cut open with gas or electric torch as toxic decomposition products may be liberated. Do not reuse empty containers.

Freeman 1220 Part B (Hardener)

**Section 14 Transport Information**

**DOT/IMDG/IATA:** Not classified as a dangerous good under transport regulations.

**Section 15 Regulatory Information**

**TSCA:** All ingredients are on the TSCA Chemical Substance Inventory, or are not required to be listed.

**DSL:** The substance(s) in this product is/are on the Canadian Domestic Substances List.

**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):** This product does not contain chemicals which are known to the State of California to cause cancer, birth defects, or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**Section 16 Other Information**

**HMIS III**

Health = 2 (chronic), Fire = 1, Physical Hazard = 0

**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.

Date of initial release: February 25, 2025

Date of previous revision: February 25, 2025

Current revision date: May 1, 2025