Safety Data Sheet

Freeman 1220 Part A (Resin)

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

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.

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

Physical appearance/state	Gray paste
Odor	Slight aromatic epoxy odor
Odor threshold	No data available
pH	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Vapor pressure (Pa)	No data available
Vapor density (Air = 1)	Not available
Specific gravity (g/cm^3)	1.3
Coefficient of water/oil distribution	Not available
Solubility	Not soluble in water

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-(epichlorhydrin); 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-(phenoxymethyl), a chemical which is known to the State of California to cause cancer. For more information go to 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

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Date of initial release: February 25, 2025
Date of previous revision: N/A
Current revision date: February 25, 2025

Safety Data Sheet

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.

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.

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^3	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

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

Section 9 Physical and Chemical Properties

Specific gravity (g/cm³)	1.3
Coefficient of water/oil distribution	Not available
Solubility	Partial in water

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.

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

Section 16 Other Information

HMIS III

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

Disclaimer

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Date of initial release: February 25, 2025
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