# Safety Data Sheet

# Freeman 990 Part A (Resin)

## Section 1 Identification

**Product identifiers**

Freeman 990 Paste Part A (Resin)

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

Resin component of two-part epoxy. 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: +1 800 321-8511
Email: contactus@freemansupply.com

**24-Hour emergency contact**
**CHEMTREC: (800) 424-9300**
**Worldwide: +1 703-527-3887**

## Section 2 Hazards Identification

**Classification in accordance with GHS**

Skin Irritant, Category 2
Skin Sensitizer, Category 1
Eye Irritant, Category 2A
Hazardous to the aquatic environment, long-term hazard, Category 3

**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.
H412 Harmful to aquatic life with long lasting effects

**Precautionary Statements**

P261 Avoid breathing dust/fume/gas/mist/vapors/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 with Federal rules, laws and regulations.

## Section 3 Composition/Information on Ingredients

| Ingredient Name | CAS Number | Concentration (%) |
|---|---|---|
| 4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer | 25068-38-6 | >50 |

## 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. Make emergency eyewash stations, safety showers, and washing facilities available in work area.

**Personal protective equipment**

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

**Skin 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.

**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** | Clear liquid |
| **Odor** | Slight aromatic |
| **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$^3$)** | 1.17 |
| **Coefficient of water/oil distribution** | Not available |
| **Solubility** | Not available |

## 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 health effects**

**Skin Corrosion/Irritation:** Prolonged or repeated contact may cause skin irritation with local redness.
**Skin/Respiratory 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

## 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**: No data available
**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/TDG/IMDG/IATA/DGR**

Not classified as a dangerous good under transport regulations.

## Section 15 Regulatory Information

**Toxic Substances Control Act (TSCA):** All ingredients are on the TSCA Chemical Substance Inventory or are not required to be listed.
**Emergency Planning and Community Right-To-Know Act (EPCRA):** Not listed
**Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):** Not listed
**Section 112(r)(7) of the Clean Air Act (CAA):** Not listed
**Section 311(j)(5) of the Clean Water Act (CWA):** Not listed
**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):** ⚠ WARNING: This product contains less than 0.1% of phenyl glycidyl ether, 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

**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.

**SDS Revisions**

Date of initial release: October 20, 2026
Date of previous revision: N/A
Current revision date: October 20, 2026

# Safety Data Sheet

# Freeman 990 Part B (Hardener)

## Section 1 Identification

**Product identifiers**

Freeman 990 Part B (Hardener)

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

Hardener component of a two-part epoxy. 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: +1 800 321-8511
Email: contactus@freemansupply.com

**24-Hour emergency contact**
**CHEMTREC: (800) 424-9300**
**Worldwide: +1 703-527-3887**

## Section 2 Hazards Identification

**Classification in accordance with GHS**

Skin corrosion/irritation, Category 1C
Serious eye damage/eye irritation, Category 1
Hazardous to the aquatic environment, acute hazard, Category 3
Hazardous to the aquatic environment, long-term hazard, Category 3

**Label elements**



Danger

**Hazard Statements**

H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage
H402 Harmful to aquatic life
H412 Harmful to aquatic life with long lasting effects

**Precautionary Statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264+P265 Wash hands thoroughly after handling Do not touch eyes.
P280 Wear protective gloves/protective clothing/eye protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P361+P354 IF ON SKIN: Take off Immediately all contaminated clothing.
Immediately rinse with water for several minutes.
P363 Wash contaminated clothing before reuse.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P316 Get emergency medical help immediately.
P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes.
Remove contact lenses if present and easy to do. Continue rinsing.
P317 Get emergency medical help.
P273 Avoid release to the environment.
P405 Store locked up.
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 (%) |
|---|---|---|
| Polyoxypropylene diamine | 9046-10-0 | 30-50 |
| 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:** Small amounts splashed into eyes can cause irreversible tissue damage and blindness. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital.

**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. Make emergency eyewash stations, safety showers, and washing facilities available in work area.

**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.

**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** | Clear liquid |
| **Odor** | Slight ammonia-like odor |
| **Odor threshold** | No data available |
| **pH** | No data available |
| **Boiling point** | >300°F (>148°C) |
| **Flash point** | >250°F (>121°C) |
| **Evaporation rate** | No data available |
| **Vapor pressure (Pa)** | Not available |
| **Vapor density (Air = 1)** | No data available |
| **Specific gravity (g/cm$^3$)** | 0.95 |
| **Coefficient of water/oil distribution** | Not available |
| **Solubility** | Not available |

## Section 10 Stability and Reactivity

**Chemical stability:** This product is stable under normal ambient conditions of temperature and pressure.
**Conditions to avoid:** 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) | Inhalation LC50 (rats) |
|---|---|---|---|
| Polyoxypropylene diamine (CAS 9046-10-0) | 2,885.3 mg/kg | 2,979.7 mg/kg | >0.74 mg/l (8 hr) |
| Tetraethylenepentamine (CAS 112-57-2) | 3,990 mg/kg | 660 mg/kg | Not established |

**Potential health effects**

**Skin Corrosion/Irritation:** Not available
**Skin/Respiratory Sensitization**: Not available
**Carcinogenicity:** Not listed as a carcinogen by NTP, IARC, OSHA and ACGIH
**Germ Cell Mutagenicity:** Not available
**Reproductive Toxicity:** Not available

## Section 12 Ecological Information

**Ecotoxicity:** No data available on product

| Ingredient Name | Acute LC50 | Acute EC50 | Acute ErC50 |
|---|---|---|---|
| Polyoxypropylene diamine | 772.14 mg/l<br>203 Fish, Acute Toxicity Test,<br>Fish (96 h) | 80 mg/l<br>202 Daphnia sp. Acute Immobilization Test and Reproduction Test<br>Aquatic invertebrates.<br>Water flea (48 h) | > 15 mg/l<br>201 Aquatic plants<br>Algae (72 h) |

**Persistence and degradability**: No data available
**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/TDG/IMDG/IATA/DGR**

**Limited Quantity:** Allowed up to a maximum net quantity of 5 L per inner packaging (with a maximum gross package weight of 30 k).

**Bulk transport:** UN 2735, Polyamines, liquid, corrosive, n.o.s. (Poly(propylene glycol) bis(2-aminopropyl ether)), Class 8, Packing group III

## Section 15 Regulatory Information

**Toxic Substances Control Act (TSCA):** All ingredients are on the TSCA Chemical Substance Inventory or are not required to be listed.

**Emergency Planning and Community Right-To-Know Act (EPCRA):** Not listed

**Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):** Not listed

**Section 112(r)(7) of the Clean Air Act (CAA):** Not listed

**Section 311(j)(5) of the Clean Water Act (CWA):** Not listed

**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):** ⚠WARNING: This product contains less than 0.1% of propylene oxide, a chemical which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov
CAS 75-56-9, No significant risk level: not established

## 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.

**SDS Revisions**

Date of initial release: October 20, 2026
Date of previous revision: N/A
Current revision date: October 20, 2026