

**Freeman 955 Hi-Temp Surface Coat Resin**

**Section 1 Identification**

**Product Identifiers**

Product name: Freeman 955 Hi-Temp Surface Coat Resin

**Relevant Identified Uses of the Substance or Mixture**

Epoxy resin for epoxy system. For Industrial/Professional use only.

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

Freeman Manufacturing and Supply Company

1101 Moore Road, Avon, OH 44011

Telephone (440) 934-1902

**24 Hour emergency telephone number: CHEMTREC (800) 424-9300, Customer Number 8849**

**Section 2 Hazards Identification**

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

Skin Irritation, Category 2

Serious Eye Damage, Category 1

Skin Sensitizer, Category 1

Carcinogenicity, Category 1A

Specific Target Organ Toxicity Repeated Exposure, Category 2

Hazardous to the Aquatic Environment Chronic Hazard, Category 2

**GHS Label elements, including precautionary statements**



Signal word      Danger

**Hazard Statements**

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye damage.

May cause cancer.

May cause damage to organs through prolonged or repeated exposure.

Toxic to aquatic life with long lasting effects.

**Precautionary Statements**

**Prevention**

Obtain, read, and follow all safety instructions before use.

Do not breathe vapors.

Avoid breathing vapors.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Avoid release to the environment.

Wear protective gloves and eye protection.

**Response**

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical help.

Freeman 955 Hi-Temp Surface Coat Resin

**Section 2 Hazards Identification continued**

If exposed or concerned, get medical advice.  
 Get medical help if you feel unwell.  
 If skin irritation or rash occurs: Get medical help.  
 Take off contaminated clothing and wash it before reuse.  
 Collect spillage.

**Storage**

Store locked up.

**Disposal**

Dispose of contents and container in accordance with local, regional, and national regulations.

**Supplemental Information**

This is one part of a two-part system. Read and understand the hazard information on curative before using.

**Section 3 Composition/Information on Ingredients**

Ingredient Name	CAS Number	Concentration (%)
Propane, 2,2-bis[p(2,3-epoxypropoxy)phenyl]-, polymers	25085-99-8	30 - 40
Crystalline Silica, quartz	14808-60-7	0-5
2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane]	2425-79-8	5-10

**Section 4 First Aid Measures**

**Description of first aid measures**

**Eye Contact:** Rinse thoroughly with water, holding the eyelids open to be sure the material is washed out. Remove contact lenses if safe and easy to do. Continue rinsing. Get medical attention if irritation persists.

**Skin Contact:** Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation persists.

**Inhalation:** Remove person to fresh air. Get medical attention if symptoms persist.

**Ingestion:** Do not induce vomiting. Rinse mouth. Get medical attention.

**Most Important Symptoms/Effects:** May cause an allergic skin reaction.

**Indication of Immediate Medical Attention/Special Treatment:** Treat symptoms.

**Section 5 Fire-Fighting Measures**

**Extinguishing media**

Suitable extinguishing media: Dry chemical. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or spread fire.

**Specific Hazards**

Not classified as flammable or combustible. Product will burn under fire conditions. Combustion products include oxides of carbon, phenolics, aldehydes, and other toxic organic compounds.

**Special Protective Equipment and Precautions for Fire-Fighters**

Wear positive pressure, self-contained breathing apparatus, and full-body protective clothing.

**Freeman 955 Hi-Temp Surface Coat Resin**

**Section 6 Accidental Release Measures**

**Personal Precautions, Protective Equipment, and Emergency Procedures**

Clear unnecessary, unprotected personnel from the area. Wear appropriate protective clothing to prevent eye and skin contact and avoid breathing vapors.

**Methods and Materials for Containment and Cleanup**

Cover with an inert absorbent material and collect into an appropriate container for disposal. Avoid releases to the environment.

**Section 7 Handling and Storage**

**Safe Handling**

Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Do not eat, drink, or smoke in the work area. Keep container closed when not in use.

**Safe Storage**

Store indoors at temperatures below 120°F (49°C). Store in original containers. Avoid getting moisture into containers. Keep containers tightly closed.

**Section 8 Exposure Controls/Personal Protection**

**Occupational Exposure Limits**

Ingredient	OSHA		ACGIH	
	PEL	STEL	TWA	STEL
Crystalline silica, quartz (CAS14808-60-7)	0.05 mg/m <sup>3</sup>	Not established	0.05 mg/m <sup>3</sup>	Not established

**Ventilation**

Use with adequate general or local exhaust ventilation to minimize exposure levels.

**Respiratory protection**

If needed, an approved respirator with organic vapor cartridges may be used. Respirator selection and use should be based on contaminant type, form, and concentration. For higher exposures or in an emergency, use a supplied-air respirator.

**Skin Protection**

Wear impervious gloves, such as butyl rubber or nitrile rubber.

**Eye Protection**

Wear chemical safety glasses/goggles.

**Other Protective Measures**

Prevent skin contact and contamination of personal clothing. An eye wash facility and washing facility should be available in the work area. Follow applicable regulations and good Industrial Hygiene practice.

**Section 9 Physical and Chemical Properties**

<b>Appearance</b>	Liquid
<b>Odor</b>	Epoxy
<b>Odor Threshold</b>	No data available
<b>pH</b>	Not determined
<b>Melting Point</b>	No data available
<b>Boiling Point</b>	No data available

Freeman 955 Hi-Temp Surface Coat Resin

**Section 9 Physical and Chemical Properties continued**

<b>Flash Point</b>	No data available
<b>Evaporation Rate</b>	No data available
<b>Upper/Lower Flammability Limits</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	No data available
<b>Relative Density</b>	No data available
<b>Solubility</b>	Nil slightly soluble in water
<b>Coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Viscosity</b>	No data available

**Section 10 Stability and Reactivity**

**Reactivity**

Not normally reactive.

**Chemical Stability**

Stable under recommended conditions.

**Possibility of Hazardous Reactions**

Masses of  $\geq 1$  lb. (0.5 kg) plus aliphatic amine will cause irreversible polymerization with considerable heat build-up. Material will polymerize with sodium hydroxide.

**Conditions to Avoid**

Avoid excessive heat.

**Incompatible Materials**

Avoid contact with strong oxidizing agents, acids, alkalis, amines, and mercaptans.

**Hazardous Decomposition Products**

Uncontrolled exothermic reaction of epoxy resin releases carbon monoxide, carbon dioxide, phenolics, and aldehydes.

**Section 11 Toxicological Information**

**Eye Contact**

Causes serious eye damage.

**Skin Contact**

Causes skin irritation. May cause sensitization. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Inhalation**

Vapors from heated product may cause respiratory irritation.

**Ingestion**

No data available.

**Chronic Health Effects**

Allergic skin reaction.

**Acute Toxicity Values**

No data available

**Respiratory Sensitization**

Components are not respiratory sensitizers.

**Skin Sensitization**

Causes allergic skin reaction

**Freeman 955 Hi-Temp Surface Coat Resin**

**Section 11 Toxicological Information continued**

**Germ Cell Mutagenicity**

Components are not mutagens.

**Carcinogenicity**

This product contains crystalline silica, quartz (CAS 14808-60-7), a chemical suspected of causing cancer.

**Reproductive Toxicity**

Components are not reproductive toxins.

**Specific Target Organ Toxicity**

May damage organs through prolonged or repeated exposure.

**Section 12 Ecological Information**

**Ecotoxicity**

No data available

**Persistence and Degradability**

No data available.

**Bioaccumulative Potential**

No data available.

**Mobility in Soil**

No data available.

**Section 13 Disposal Considerations**

The product should not be allowed to enter drains, water courses, or the soil.  
 Contact a licensed contractor for detailed recommendations.  
 Follow applicable Federal, State, and local regulations.

**Section 14 Transport Information**

**U.S.**

UN 3082, Environmentally hazardous substances, liquid, n.o.s. (epoxy resin), 9, III. Not regulated as a hazardous material by US DOT in containers of 55-gal or less.

**International Shipments**

UN 3082, Environmentally hazardous substances, liquid, n.o.s. (epoxy resin), 9, III. Excepted from IMDG and IATA regulations in containers of 5 liters or less (see IATA SP A197 and IMDG 2.10.2.7).

**Section 15 Regulatory Information**

**US Federal Regulations**

**CERCLA 103 Reportable Quantity**

This product is not subject to reporting under CERCLA. Some states have more stringent reporting requirements.

**SARA TITLE III**

**Section 311/312**

Acute and Chronic Health Hazard.

**Freeman 955 Hi-Temp Surface Coat Resin**

**Section 15 Regulatory Information continued**

**Section 313 Toxic Chemicals**


This product contains no chemicals subject to SARA Title III Section 313 Reporting requirements.

**Section 302 Extremely Hazardous Substances (TPQ)**

None

**State Regulations**

**California Proposition 65**

**WARNING:**  This product contains crystalline silica, quartz (CAS 14808-60-7), a chemical known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**Section 16 Other Information**

**Training Advice**

All personnel using/handling this product should be trained in proper chemical handling and the need for and use of engineering controls and protective equipment.

**Recommended Uses and Restrictions**

This product is intended for industrial/professional use only.

**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.

**Freeman 955 Hi-Temp Surface Coat Hardener**

**Section 1 Identification**

**Product Identifiers**

Product name: Freeman 955 Hi-Temp Surface Coat Hardener

**Relevant Identified Uses of the Substance or Mixture**

Identified uses: Epoxy Curing Agent. For Industrial/Professional use only.

**Details of the Supplier of the Safety Data Sheet**

Freeman Manufacturing and Supply Company  
1101 Moore Road, Avon, OH 44011  
Telephone (440) 934-1902

**24 Hour emergency telephone number: CHEMTREC (800) 424-9300, Customer Number 8849**

**Section 2 Hazards Identification**

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

Acute Toxicity (Oral), Category 4  
Acute Toxicity (Dermal), Category 4  
Skin Corrosion, Category 1B  
Serious Eye Damage, Category 1  
Skin Sensitization, Category 1  
Specific Target Organ Toxicity, Single Exposure Category 1 (Oral)  
Hazardous to the Aquatic Environment, Acute Hazard Category 2

**GHS Label elements, including precautionary statements**



Signal word    Danger

**Hazard Statements**

Harmful if swallowed.  
Harmful in contact with skin.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
Causes serious eye damage.  
Causes damage to organs.  
Harmful to aquatic life.

**Precautionary Statements**

Prevention

Do not breathe vapors.  
Avoid breathing vapors.  
Wash thoroughly after handling.  
Do not eat, drink, or smoke when using this product.  
Contaminated work clothing should not be allowed out of the workplace.  
Avoid release to the environment.  
Wear protective gloves.

**Section 2 Hazards Identification continued**

**Response**

IF SWALLOWED: Get medical help. Rinse mouth. Do NOT induce vomiting.  
 IF ON SKIN: Wash with plenty of water. Immediately take off all contaminated clothing. Immediately rinse with water for several minutes.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 If exposed or concerned: Get emergency medical help immediately.  
 If skin irritation or rash occurs: Get medical help.  
 Take off contaminated clothing and wash before reuse.

**Storage**

Store locked up.

**Disposal**

Dispose of contents and container in accordance with all local, regional, national, and international regulations.

**Supplemental Information**

This is one part of a two-part system. Read and understand the hazard information on Resin before using.

**Section 3 Composition/Information on Ingredients**

Ingredient Name	CAS Number	Concentration (%)
1H-Imidazole, 1-Methyl-	616-47-7	1-10
1,3-Benzenediol	108-46-3	1-10
Triethylenetetramine	112-24-3	35-45
Methylenebis(cyclohexanamine, 4,4'-	1761-71-3	50-60

**Section 4 First Aid Measures**

**Description of First Aid Measures**

**Eye Contact**

Rinse thoroughly with water for at least 15 minutes, holding the eyelids open to be sure the material is washed out. Remove contact lenses if present and easy to do. Get medical attention if irritation develops or persists.

**Skin Contact**

Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation or symptoms of exposure develop. Launder clothing before reuse. Discard items that cannot be decontaminated.

**Inhalation**

If inhaled, remove person to fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention if symptoms develop or persist.

**Ingestion**

Rinse mouth. Do not induce vomiting. Get medical attention if you feel unwell.



**Section 4 First Aid Measures continued**

**Most Important Symptoms/Effects**

Harmful if swallowed, in contact with skin, or if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. Suspected of damaging fertility or the unborn child. Suspected of causing genetic defects.

**Indication of Immediate Medical Attention/Special Treatment**

Provide general supportive measures and treat symptomatically. Keep victim under observation as symptoms may be delayed.

**Section 5 Fire-Fighting Measures**

**Extinguishing Media**

Use alcohol-resistant foam, carbon dioxide, water fog, or dry chemical.

**Special Hazards**

Not classified as flammable or combustible.

**Special Protective Equipment and Precautions for Fire-Fighters**

Wear positive pressure, self-contained breathing apparatus, and full-body protective clothing. Cool fire-exposed containers with water.

**Section 6 Accidental Release Measures**

**Personal Precautions, Protective Equipment, and Emergency Procedures**

Remove all ignition sources. Clear non-emergency personnel from the area. Wear appropriate protective clothing to prevent eye and skin contact and avoid breathing vapors. Ventilate area.

**Methods and Materials for Containment and Cleanup**

Do not discharge material into waterways. Cover with an inert absorbent material and collect into an appropriate container for disposal.

**Section 7 Handling and Storage**

**Precautions for Safe Handling**

Do not breathe vapors. Avoid exposure. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

**Conditions for Safe Storage, Including any Incompatibilities**

Keep containers tightly closed in a dry and well-ventilated place. Carefully reseal opened containers after use. No known incompatible materials.

**Safe Handling**

Avoid contact with eyes, skin, and clothing. When using, do not eat, drink, or smoke. Use with properly positioned local exhaust ventilation to prevent exposure. Wash thoroughly after handling. Keep container closed when not in use.

**Safe Storage**

Store indoors at temperatures between 40°F and 95°F. Store in original, unopened containers away from incompatible materials, open flames, and high temperatures.

**Section 8 Exposure Controls/Personal Protection**

**Occupational Exposure Limits**

Ingredient	ACGIH
	TWA
1,3-Benzenediol (CAS 106-46-3)	10 ppm

**Ventilation**

Use with properly positioned local exhaust ventilation to prevent exposure and maintain air levels below the occupational exposure limits.

**Respiratory Protection**

If ventilation is not adequate, use an approved respirator with organic vapor cartridges or supplied air. Respirator selection and use should be based on contaminant type, form, and concentration. For higher exposures or in an emergency, use a supplied-air respirator.

**Skin Protection**

Wear impervious gloves, such as butyl rubber or nitrile rubber.

**Eye Protection**

Wear chemical safety goggles or face shield.

**Other Protective Measures**

Wear impervious clothing to prevent skin contact and contamination of personal clothing. An eye wash facility and washing facility should be available in the work area. Follow applicable regulations and good Industrial Hygiene practice.

**Section 9 Physical and Chemical Properties**

<b>Appearance</b>	Liquid
<b>Odor</b>	Epoxy
<b>Odor Threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting/Freezing Point</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>Flammability Limits</b>	No data available
<b>Vapor pressure</b>	No data available
<b>Vapor Density</b>	No data available
<b>Relative Density</b>	1.0 g/cm <sup>3</sup>
<b>Solubility</b>	Insoluble in water
<b>Coefficient: n-Octanol/ Water</b>	No data available
<b>Auto-Ignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available

**Section 10 Stability and Reactivity**

**Reactivity**

Not normally reactive.

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

No data available.

**Conditions to Avoid**

Keep away from open flames, hot surfaces, sources of ignition.

**Incompatible Materials**

Avoid strong acids, carbon dioxide, acid chlorides, and acid anhydrides.

**Hazardous Decomposition Products**

Carbon monoxide, carbon dioxide, nitrogen oxides, ammonia, nitrosamine.

**Section 11 Toxicological Information**

**Eye Contact**

Causes serious eye damage.

**Skin Contact**

Causes skin burns and irritation.

**Inhalation**

May cause respiratory irritation.

**Ingestion**

Harmful if ingested.

**Chronic Health Effects**

No data available.

**Acute Toxicity Values**

For Methylenedicyclohexanamine, 4,4' (CAS 1761-71-3)

Oral LD<sub>50</sub> Rat: >1,200 mg/kg

Dermal LD<sub>50</sub> Rabbit: >2,000 mg/kg

For Triethylenetetramine (CAS 112-24-3)

Oral LD<sub>50</sub> Rat: 2,500 mg/kg

Dermal LD<sub>50</sub> Rat: 550 mg/kg

For 1,3-Benzenediol (CAS 108-46-3)

Oral LD<sub>50</sub> Rat: 510 mg/kg

Dermal LD<sub>50</sub> Rat: 2,830 mg/kg

For 1H-Imidazole, 1-Methyl- (CAS 616-47-7)

Oral LD<sub>50</sub> Rat: 1,130 mg/kg

Dermal LD<sub>50</sub> Rat 400-640 mg/kg

**Respiratory Sensitization**

This product is not considered a respiratory sensitizer.

**Skin Sensitization**

This product is classified as a skin sensitizer.

**Germ Cell Mutagenicity**

This product is not a mutagen.

**Carcinogenicity**

Product has not been tested for carcinogenicity. No ingredients are designated as carcinogens by NTP, IARC, or OSHA.

**Section 11 Toxicological Information continued**

**Reproductive Toxicity**

This product does not contain chemicals suspected of causing damage to fertility or the unborn child.

**Specific Target Organ Toxicity**

May cause damage to organs through single exposure.

**Section 12 Ecological Information**

**Ecotoxicity**

Harmful to aquatic life. Do not release to waterways.

**Persistence and Degradability**

No data available.

**Bioaccumulative Potential**

No data available.

**Mobility in Soil**

No data available.

**Section 13 Disposal Considerations**

Do not allow product to enter drains, water courses, or soil. Do not re-use empty containers. Contact a licensed waste management company for detailed recommendations. Follow applicable Federal, State, and local regulations.

**Section 14 Transport Information**

**DOT: Shipping Name:** Corrosive, liquid, n.o.s.

(Triethylenetetramine, 1H-Imidazole, 1-Methyl-, cycloaliphatic amine)

**Hazard Class:** 8

**ID No.:** UN 1760

**Packing Group:** II

**Labels:** Marine Pollutant

**IATA: Shipping Name:** Corrosive, liquid, n.o.s.

(Triethylenetetramine, 1H-Imidazole, 1-Methyl-, cycloaliphatic amine)

**Hazard Class:** 8

**ID No.:** UN 1760

**Packing Group:** II

**Labels:** Marine Pollutant

**IMDG: Shipping Name:** Corrosive, liquid, n.o.s.

(Triethylenetetramine, 1H-Imidazole, 1-Methyl-, cycloaliphatic amine)

**Hazard Class:** 8

**ID No.:** UN 1760

**Packing Group:** II

**Marine pollutant:** Yes

**Section 15 Regulatory Information**

**US Federal Regulations**

**CERCLA 103 Reportable Quantity**

There are no reportable quantities for this product. Some states have more stringent reporting requirements.

**SARA TITLE III Section 311/312**

Acute Health Hazard.

**Section 313 Toxic Chemicals**

This product does not contain chemicals subject to SARA Title III Section 313 Reporting requirements.

**Section 302 Extremely Hazardous Substances (TPQ)**

None

**EPA Toxic Substances Control Act (TSCA) Status**

All of the components of this product are listed on TSCA.

**US State Regulations**

**California Proposition 65**

This product does not contain chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm. [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**Section 16 Other Information**

**Training Advice**

All personnel using/handling this product should be trained in proper chemical handling and the need for and use of engineering controls and protective equipment.

**Recommended Uses and Restrictions**

This product is intended for industrial use only.

**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.