

## Section 1 Identification

### Product identifiers

Product name: Freeman 917 Resin

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

Identified uses: Epoxy constituent

### Details of the supplier of the safety data sheet

Freeman Manufacturing and Supply Company  
1101 Moore Road, Avon, OH 44011  
Phone (440) 934-1902  
FAX (440) 934-7200

HMIS	
H	3
F	1
R	0
PPE Sec. 8	

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

## Section 2 Hazards Identification

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

Skin Corrosion/Irritation, Category 2  
Serious Eye Damage/Eye Irritation, Category 1  
Skin Sensitization, Category 1  
Acute Aquatic Toxicity, Category 2  
Chronic Aquatic Toxicity, Category 2

### GHS Label elements, including precautionary statements



Signal word                      Danger

### Hazard statements

Causes serious eye irritation.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Toxic to aquatic life with long lasting effect.

### Precautionary statements

#### Prevention

Avoid breathing dust/fume/gas/mist/vapour/spray.  
Wash skin thoroughly after handling  
Keep container tightly closed when not in use.  
Avoid release to the environment.  
Wear protective gloves/eye protection/face protection.  
Do not eat, drink or smoke when using this product.

#### Response

If on skin: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
If in eyes: Rinse continuously with water for at least 15 minutes.  
Remove contact lenses, if present and easy to do.  
If eye irritation persists: Get medical advice/attention.

**Section 2 Hazards Identification continued**
**Storage**

Store in a well-ventilated place. Keep cool.

**Disposal**

Dispose of contents and container to an appropriate waste site in accordance with local and national regulations.

**Hazards not otherwise classified (HNOC) or not covered by GHS**

None known

**Section 3 Composition/Information on Ingredients**

Ingredient Name	CAS Number	Concentration (%)
Bisphenol A Epoxy Resin	25068-38-6	30-50
Calcium carbonate	1317-65-3	10-20
Epoxy Phenol Novolac Resin	28064-14-4	10-20
Butanediol Diglycidyl Ether	2425-79-8	5-10
Butylphenyl Glycidyl Ether	3101-60-8	2.5-5
Talc	14807-96-6	1-5
Titanium dioxide	13463-67-7	0.1-1

**Section 4 First-Aid Measures**
**Description of first aid measures**
**If inhaled**

Move person into fresh air. If not breathing, give artificial respiration.

**In case of skin contact**

Wash off with soap and plenty of water. Get medical attention if symptoms occur.

**In case of eye contact**

Flush eyes with water for at least 15 minutes. Get medical attention.

**If swallowed**

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Provided the patient is conscious, wash out mouth with water.

Get medical attention if symptoms appear.

**Most important symptoms and effects, both acute and delayed**

None known

**Section 5 Fire-Fighting Measures**
**Extinguishing media**

Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: High volume water jet

**Special hazards arising from the substance or mixture**

Decomposition products may include carbon dioxide, carbon monoxide and metal oxides

**Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**Further information**

Do not allow run-off from firefighting to enter drains or water courses.

### Section 6 Accidental Release Measures

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

For personal protection see section 8.

#### Environmental precautions

Do not let product enter drains.

#### Methods and materials for containment and cleaning up

Contain and collect spillage with non-combustible absorbent material such as sand, earth, and vermiculite. Sweep up and place in suitable containers for disposal.

Keep in suitable, closed containers for disposal.

### Section 7 Handling and Storage

#### Precautions for safe handling

Do not breathe fumes or vapor. Do not allow material to contact skin and eyes. Provide appropriate exhaust ventilation.

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

Store at ambient temperatures in closed containers. Do not heat this material above the flash point.

### Section 8 Exposure Controls/Personal Protection

#### Components with workplace control parameters

Ingredient Name	OSHA		ACGIH	
	PEL	STEL	TWA	STEL
Calcium carbonate	none established	none established	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)	none established
Titanium dioxide	none established	none established	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)	none established

#### Exposure controls

##### Appropriate engineering controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits. An eye wash station and safety shower should be located near the workstation.

#### Personal protective equipment

##### Eye/face protection

With product at ambient temperatures, use safety glasses equipped with side shields.

#### Skin protection

##### Hand Protection

With product at ambient temperatures, use disposable chemical resistant gloves. Contaminated gloves should be replaced.

##### Body Protection

Prevent skin contact when handling material.

#### Respiratory Protection

The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated use a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter.

**Section 8 Exposure Controls/Personal Protection continued**
**General Hygienic Practices**

Avoid breathing vapor or mist. Avoid contamination of food, beverages, or smoking materials. 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>Appearance</b>	Gray liquid
<b>Odor</b>	Epoxy-like
<b>Odor Threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting Point</b>	No data available
<b>Initial boiling point &amp; boiling range</b>	No data available
<b>Flash Point(COC)</b>	>143°C (>290°F)
<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Upper/lower flammability</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Vapor density</b>	No data available
<b>Relative density (g/cc)</b>	1.3
<b>Product density (lb/gal)</b>	11.10
<b>Water Solubility</b>	No data available
<b>Coefficient: n-octanol/ water</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive Properties</b>	No data available
<b>Oxidizing Properties</b>	No data available
<b>% Volatile materials</b>	0
<b>Total Organics</b>	>78.05%

**Section 10 Stability and Reactivity**
**Reactivity**

No specific test data related to reactivity available for this product or its ingredients

**Chemical stability**

Stable under recommended storage conditions

**Possibility of hazardous reactions**

None known

**Conditions to avoid**

Accidental mixing with curing agent, all sources of ignition

**Incompatible materials**

Oxidizing materials

**Hazardous decomposition products**

Thermal oxidative decomposition can produce carbon monoxide, carbon dioxide, and undetermined organic materials.

**Section 11 Toxicological Information**
**Information on toxicological effects**

<b>Acute oral toxicity</b>	>5,000 mg/kg (estimate)
<b>Acute inhalation toxicity</b>	142 mg/l, Exposure time: 4 h (estimate)
<b>Acute dermal toxicity</b>	>5,000 mg/kg (estimate)
<b>Skin corrosion/irritation</b>	Extremely corrosive and destructive to tissue
<b>Serious eye damage/eye irritation</b>	May cause irreversible eye damage
<b>Respiratory or skin sensitization</b>	Causes sensitization
<b>Germ cell mutagenicity</b>	No data available on product
<b>Carcinogenicity</b>	Product is not classifiable as a human carcinogen
<b>IARC</b>	Titanium dioxide, Group 2B: Possibly carcinogenic to humans by IARC.
<b>ACGIH</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
<b>NTP</b>	Talc, Known to be a human carcinogen by NTP. is identified as a known or anticipated carcinogen.
<b>OSHA</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
<b>Reproductive toxicity</b>	No data available
<b>Specific target organ toxicity</b>	
- single exposure	No data available
<b>Specific target organ toxicity</b>	
- repeated exposure	No data available

**Section 12 Ecological Information**

<b>Toxicity</b>	Harmful to aquatic life
<b>Persistence and degradability</b>	No data available
<b>Bioaccumulative potential</b>	No data available
<b>Mobility in soil</b>	No data available
<b>Results of PBT &amp; vPvB assessment</b>	No data available

**Section 13 Disposal Considerations**

Use safety containers for disposal. Contact a licensed contractor for detailed recommendations. Follow applicable Federal, State, and local regulations.

**Section 14 Transport Information**

<b>DOT</b>	<b>Shipping Name:</b> Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy Resin, Epoxy Phenol Novolac Resin)
	<b>Hazard Class:</b> 9
	<b>ID No.:</b> UN 3082
	<b>Packing Group:</b> III
	<b>Label:</b> Marine Pollutant
<b>IATA</b>	<b>Shipping Name:</b> Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy Resin, Epoxy Phenol Novolac Resin)
	<b>Hazard Class:</b> 9
	<b>ID No.:</b> UN 3082
	<b>Packing Group:</b> III
	<b>Label:</b> Marine Pollutant

**Section 14 Transport Information**

**IMDG: Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy Resin, Epoxy Phenol Novolac resin)  
**Hazard Class:** 9  
**ID No.:** UN 3082  
**Packing Group:** III  
**Label:** Marine Pollutant

**Section 15 Regulatory Information****US Federal Regulations**

**SARA 311/312 Hazards:** Skin corrosion or irritation, Serious eye damage or eye irritation, Respiratory or skin sensitization.

**SARA 313 Toxic Chemical (40 CFR 372.65):** This material does not contain any chemical components with known CAS numbers that exceed the threshold (DeMinimis) reporting levels.

**Clean Air Act**

This product does not contain any Hazardous Air Pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This material does not contain Volatile Hazardous Air Pollutants (VHAP) as listed in Section 112(b) of the Clean Air Act or as amended in the Federal Register.

**US State Regulations**

**California Proposition 65:** ⚠ **WARNING:** This product contains titanium dioxide and 1-chloro-2, 3-epoxypropane which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**Inventories**

**Toxic Substance Control Act (TSCA) Inventory Status:** All ingredients listed on TSCA inventory requirements.

**TSCA 5(a) Significant New Use Rule List of Chemicals:** No substances are subject.

**TSCA Section 12(b) Export Notification:** No substances are subject.

**DSL:** This product contains one or several components listed in the Canadian NDSL.

**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. 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.

## Section 1 Identification

### Product identifiers

Product name: Freeman 917 Hardener

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

Identified uses: Hardener

### Details of the supplier of the safety data sheet

Freeman Manufacturing and Supply Company  
1101 Moore Road, Avon, OH 44011  
Phone (440) 934-1902  
FAX (440) 934-7200

HMIS	
H	3
F	1
R	0
PPE Sec. 8	

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

## Section 2 Hazards Identification

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

Acute toxicity (Dermal), Category 4  
Skin Corrosion/Irritation, Category 1B  
Serious Eye Damage/Eye Irritation, Category 1  
Skin Sensitization, Category 1  
Acute Aquatic Toxicity, Category 3  
Chronic Aquatic Toxicity, Category 3

### GHS Label elements, including precautionary statements



Signal word                      Danger

### Hazard statements

Causes severe skin burns and eye damage  
Harmful in contact with skin  
May cause an allergic skin reaction.  
Harmful to aquatic life with long lasting effect.

### Precautionary statements

#### Prevention

Avoid breathing dust/fume/gas/mist/vapour/spray.  
Wash skin thoroughly after handling  
Keep container tightly closed when not in use.  
Avoid release to the environment.  
Wear protective gloves/eye protection/face protection.  
Do not eat, drink or smoke when using this product.

#### Response

If swallowed: Rinse mouth. Do not induce vomiting.  
If on skin: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
If in eyes: Rinse continuously with water for at least 15 minutes.



## Section 2 Hazards Identification continued

Remove contact lenses, if present and easy to do.  
If eye irritation persists: Get medical advice/attention.  
If inhaled: Remove person to fresh air. Get medical advice/attention.

### Storage

Store in a well-ventilated place. Keep cool.

### Disposal

Dispose of contents and container to an appropriate waste site in accordance with local and national regulations.

### Hazards not otherwise classified (HNOC) or not covered by GHS

None known

## Section 3 Composition/Information on Ingredients

Ingredient Name	CAS Number	Concentration (%)
Triethylene Tetramine	112-24-3	30-60
Metaxylenediamine	1477-55-0	13-30
1-Methylimidazole	616-47-7	3-7
Trimethylhexamethylenediamine	25513-64-8	0.1-1

## Section 4 First-Aid Measures

### Description of first aid measures

#### If inhaled

Move person into fresh air. If not breathing, give artificial respiration. If symptoms persist, seek medical attention.

#### In case of skin contact

Wash off with soap and plenty of water. Get medical attention.

#### In case of eye contact

Flush eyes with water for at least 15 minutes. Get medical attention. Continue rinsing during transport to hospital.

#### If swallowed

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Provided the patient is conscious, wash out mouth with water. Get medical attention if symptoms appear.

### Most important symptoms and effects, both acute and delayed

None known

## Section 5 Fire-Fighting Measures

### Extinguishing media

Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: High volume water jet

### Special hazards arising from the substance or mixture

Decomposition products may include carbon dioxide, carbon monoxide and metal oxides

### Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### Further information

Do not allow run-off from firefighting to enter drains or water courses.



### Section 6 Accidental Release Measures

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

For personal protection see section 8.

**Environmental precautions**

Do not let product enter drains.

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

Contain and collect spillage with non-combustible absorbent material such as sand, earth, and vermiculite. Sweep up and place in suitable containers for disposal.

Keep in suitable, closed containers for disposal.

### Section 7 Handling and Storage

**Precautions for safe handling**

Do not breathe fumes or vapor. Do not allow material to contact skin and eyes. Provide appropriate exhaust ventilation.

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

Store at ambient temperatures in closed containers. Do not heat this material above the flash point.

### Section 8 Exposure Controls/Personal Protection

**Components with workplace control parameters**

Ingredient Name	OSHA		ACGIH	
	PEL	STEL	TWA	STEL
Metaxylenediamine	none established	none established	0.1 mg/m <sup>3</sup>	none established

**Exposure controls**

**Appropriate engineering controls**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits. An eye wash station and safety shower should be located near the workstation.

**Personal protective equipment**

**Eye/face protection**

With product at ambient temperatures, use safety glasses equipped with side shields.

**Skin protection**

**Hand Protection**

With product at ambient temperatures, use disposable chemical resistant gloves. Contaminated gloves should be replaced.

**Body Protection**

Prevent skin contact when handling material.

**Respiratory Protection**

The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used.

**Section 8 Exposure Controls/Personal Protection continued**

**General Hygienic Practices**

Avoid breathing vapor or mist. Avoid contamination of food, beverages, or smoking materials. 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>Appearance</b>	Blue liquid
<b>Odor</b>	Amine-like
<b>Odor Threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting Point</b>	No data available
<b>Boiling point</b>	>204°C (>400°F)
<b>Flash Point</b>	>93°C (>200°F)
<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Upper/lower flammability</b>	No data available
<b>Vapor Pressure</b>	0.0011997 hPa (20°C)
<b>Vapor density</b>	No data available
<b>Relative density (g/cc)</b>	1.03-1.06
<b>Product density (lb/gal)</b>	8.72
<b>Water Solubility</b>	No data available
<b>Coefficient: n-octanol/ water</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive Properties</b>	No data available
<b>Oxidizing Properties</b>	No data available
<b>% Volatile materials</b>	4.95
<b>Total organics</b>	>99.95%

**Section 10 Stability and Reactivity**

**Reactivity**

No specific test data related to reactivity available for this product or its ingredients

**Chemical stability**

Stable under recommended storage conditions

**Possibility of hazardous reactions**

None known

**Conditions to avoid**

Accidental mixing with curing agent, all sources of ignition

**Incompatible materials**

Oxidizing materials

**Hazardous decomposition products**

Thermal oxidative decomposition can produce carbon monoxide, carbon dioxide, and undetermined organic materials.

### Section 11 Toxicological Information

#### Information on toxicological effects

<b>Acute oral toxicity</b>	2,043 mg/kg (estimate)
<b>Acute inhalation toxicity</b>	9.31 mg/l, Exposure time: 4 h (estimate)
<b>Acute dermal toxicity</b>	1,478 mg/kg (estimate)
<b>Skin corrosion/irritation</b>	Extremely corrosive and destructive to tissue
<b>Serious eye damage/eye irritation</b>	May cause irreversible eye damage
<b>Respiratory or skin sensitization</b>	Causes sensitization
<b>Germ cell mutagenicity</b>	No data available on product
<b>Carcinogenicity</b>	Product is not classifiable as a human carcinogen
<b>IARC</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.
<b>NTP</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.
<b>OSHA</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
<b>Reproductive toxicity</b>	No data available
<b>Specific target organ toxicity</b>	
- single exposure	No data available
<b>Specific target organ toxicity</b>	
- repeated exposure	No data available
<b>Aspiration hazard</b>	No data available

### Section 12 Ecological Information

<b>Toxicity</b>	Harmful to aquatic life
<b>Persistence and degradability</b>	No data available
<b>Bioaccumulative potential</b>	No data available
<b>Mobility in soil</b>	No data available
<b>Results of PBT &amp; vPvB assessment</b>	No data available

### Section 13 Disposal Considerations

#### Disposal

Use safety containers for disposal. Contact a licensed contractor for detailed recommendations. Follow applicable Federal, State, and local regulations.

### Section 14 Transport Information

<b>DOT</b>	<b>Shipping Name:</b> Polyamines, liquid, corrosive, n.o.s. (Triethylene tetramine, m-xylene diamine)
	<b>Hazard Class:</b> 8
	<b>ID No.:</b> UN 2735
	<b>Packing Group:</b> II
	<b>Label:</b> Corrosive

### Section 14 Transport Information

**IMDG Shipping Name:** Polyamines, liquid, corrosive, n.o.s. (Triethylene tetramine, m-xylene diamine)  
**Hazard Class:** 8  
**ID No.:** UN 2735  
**Packing Group:** II  
**Labels:** 8  
**Marine pollutant:** No

**IATA Shipping Name:** Polyamines, liquid, corrosive, n.o.s. (Triethylene tetramine, m-xylene diamine)  
**Hazard Class:** 8  
**ID No.:** UN 2735  
**Packing Group:** II

### Section 15 Regulatory Information

**US Federal Regulations**

**SARA 311/312 Hazards:** Acute Health Hazard

**SARA 313 Toxic Chemical (40 CFR 372.65):** This material does not contain any chemical components with known CAS numbers that exceed the threshold (DeMinimis) reporting levels.

**Clean Air Act**

This material does not contain Volatile Hazardous Air Pollutants (VHAP) as listed in Section 112(b) of the Clean Air Act or as amended in the Federal Register.

**US State Regulations**

**California Proposition 65:** This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

**Inventories**

**Toxic Substance Control Act (TSCA) Inventory Status:** All ingredients listed on TSCA inventory requirements.

### 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. 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.