Safety Data Sheet

Freeman 690 Resin

Date of Preparation: December 1, 2015

Section 1 Chemical Product and Company Identification

HMIS	
H	2
F	1
R	0
PPE	Sec. 8

1.1 Product identifiers

Product name: Freeman 690 Resin

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

Identified uses: N/A

1.3 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

1.4 Emergency telephone number

Emergency Phone (800) 424-9300

Section 2 Hazards Identification

2.1 Classification of the substance or mixture

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

Eye Irritation, Category 2A
Skin Irritation, Category 2
Skin Sensitization, Category 1
Acute Toxicity, oral, Category 4

2.2 GHS Label elements, including precautionary statements

Signal word Warning

Hazard statements

Causes eye irritation.
Causes skin irritation.
Causes skin sensitization.
Harmful if swallowed.
Harmful to aquatic life.

Precautionary statements

Prevention

Use only in a well ventilated area.
Keep container tightly closed when not in use.
Wear protective gloves/eye protection/face protection.
Do not eat, drink or smoke when using this product.

Section 2 Hazards Identification cont.

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.

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.

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

None.

Section 3 Composition/Information on Ingredients

3.1 Substance

Ingredient Name	CAS Number
Epoxy Resin	25068-38-6
Diglycidyl Ether	17557-23-2
Polyglycol	41638-13-5

Section 4 First Aid Measures

4.1 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. Remove contaminated clothing. Get medical attention if symptoms occur.

In case of eye contact

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

If swallowed

Do not induce vomiting. Immediately call for medical help.

4.2 Most important symptoms and effects, both acute and delayed

Eye contact: Causes eye irritation.

Skin contact: Causes skin irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Inhalation: No specific data

Ingestion: No specific data.

Skin contact: Adverse symptoms may include the following:
Irritation
Redness

Eye contact: Adverse symptoms may include the following:
Pain or irritation
Watering
Redness

Section 5 Fire Fighting Measures

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available.

Section 6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For personal protection see section 8.

6.2 Environmental precautions

Do not allow product to enter sewers, surface or ground water.

6.3 Methods and materials for containment and cleaning up

For large spills absorb onto inert absorbent material and keep in suitable, closed containers for disposal.

Section 7 Handling and Storage

7.1 Precautions for safe handling

Ensure good ventilation at the workplace. Empty containers retain product residue, so obey hazard warnings and handle empty containers as if they were full.

7.2 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

8.1 Control parameters

Components with workplace control parameters

None

8.2 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.

8.3 Personal protective equipment

Eye/face protection

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

8.4 Skin protection

Hand Protection

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

Body Protection

Prevent skin contact when handling material.

Section 8 Exposure Controls/Personal Protection cont

8.5 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.

8.6 Safety Stations

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

8.7 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

9.1 Information on basic physical and chemical properties

Appearance	Clear liquid
Odor	Mild
Odor Threshold	No data available
pH	No data available
Melting Point	No data available
VOC Content	None
Initial boiling point & boiling range	No data available
Flash Point(COC)	**>**149°C (>300°F)
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability	No data available
Vapor Pressure	No data available
Vapor density	No data available
Relative density (g/cc)	1.14±0.05
Water Solubility	Slight
Coefficient: n-octanol/ water	No data available
Auto-ignition temperature	No data available
Viscosity	No data available
Explosive Properties	None
Oxidizing Properties	None
% Volatile	0%

Section 10 Stability and Reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None.

Section 10 Stability and Reactivity cont.

10.4 Conditions to avoid

Accidental mixing with curing agent.

10.5 Incompatible materials

Strong oxidizing materials, strong bases, strong acids, amines.

10.6 Hazardous decomposition products

Thermal oxidative decomposition can produce CO, and CO_2, and undetermined organic materials.

Section 11 Toxicological Information

11.1 Information on toxicological effects

Acute Oral toxicity	Low toxicity
Acute Inhalation toxicity	Irritation
Acute Dermal toxicity	Low toxicity
Skin corrosion/irritation	Mild skin irritant, may cause an allergic skin reaction
Serious eye damage/eye irritation	Mild eye irritant
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.

Reproductive toxicity	Not expected to be a hazard
Specific target organ toxicity - single exposure	None expected
Specific target organ toxicity - repeated exposure	None expected

Section 12 Ecological Information

12.1 Toxicity	Harmful to aquatic life
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	No data available
12.5 Results of PBT & vPvB assessment	No data available

Section 13 Disposal Considerations

13.1 Disposal

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

Section 14 Transport Information

14.1 Shipping Name

DOT: Not Regulated
IMDG: Not Regulated
IATA: Not Regulated

Section 15 Regulatory Information

15.1 US Federal Regulations

RCRA Hazardous Waste Number (40 CFR 261.33): Not listed
RCRA Hazardous Waste Classification (40 CFR 261): Not classified
CERCLA Hazardous Substance (40 CFR 302.4): Listed/unlisted specific per RCRA Sec. 3001
SARA 311/312 Codes: Immediate health, Delayed health
SARA Toxic Chemical (40 CFR 372.65): Not listed
TSCA Inventory Status: All ingredients listed on TSCA inventory requirements.

15.2 State Regulations

California Proposition 65: None listed

Section 16 Other Information

16.1 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.

Safety Data Sheet

Freeman 690 Hardener

Date of Preparation: December 1, 2015

Section 1 Chemical Product and Company Identification

HMIS	
H	2
F	1
R	0
PPE	Sec. 8

1.1 Product identifiers

Product name: Freeman 690 Hardener

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

Identified uses: N/A

1.3 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

1.4 Emergency telephone number

Emergency Phone (800) 424-9300

Section 2 Hazards Identification

2.1 Classification of the substance or mixture

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

Eye Irritation, Category 2A
Skin Irritation, Category 2
Skin Sensitization, Category 1
Hazardous to the Aquatic Environment, Category 1
Acute Toxicity, oral, Category 4

2.2 GHS Label elements, including precautionary statements

Signal word Warning

Hazard statements

Causes eye irritation.
Causes skin irritation.
Causes skin sensitization.
Harmful if swallowed.
Harmful to aquatic life.

Precautionary statements

Prevention

Keep container tightly closed when not in use.
Wear protective gloves/eye protection/face protection.
Do not eat, drink or smoke when using this product.

Section 2 Hazards Identification cont.

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.

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.

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

None.

Section 3 Composition/Information on Ingredients

3.1 Substance

Ingredient Name	CAS Number
Polyethylene Polyamine	68131-73-7

Section 4 First Aid Measures

4.1 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 immediately.

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.

4.2 Most important symptoms and effects, both acute and delayed

Eye contact: Causes eye irritation.

Skin contact: Causes skin irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Inhalation: No specific data.

Ingestion: No specific data.

Skin contact: Adverse symptoms may include the following:
Irritation
Redness

Eye contact: Adverse symptoms may include the following:
Pain or irritation
Watering
Redness

Section 5 Fire Fighting Measures

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

May liberate large quantities of dense, foul smelling smoke which may contain unidentified toxic gases.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available.

Section 6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel.

Keep in suitable, closed containers for disposal.

Section 7 Handling and Storage

7.1 Precautions for safe handling

Use normal precautions when handling flammable materials. Do not breathe fumes or vapor. Do not allow material to contact skin.

Provide appropriate exhaust ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Store at ambient temperatures in closed containers. Do not heat this material above the flash point. No chemical incompatibilities.

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters

Components with workplace control parameters

None

8.2 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.

8.3 Personal protective equipment

Eye/face protection

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

Section 8 Exposure Controls/Personal Protection cont

8.4 Skin protection

Hand Protection

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

Body Protection

Prevent skin contact when handling material.

8.5 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.

8.6 Safety Stations

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

8.7 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

9.1 Information on basic physical and chemical properties

Appearance	Amber liquid
Odor	Slight
Odor Threshold	No data available
pH	No data available
Melting Point	No data available
VOC Content	None
Initial boiling point & boiling range	No data available
Flash Point(COC)	129°C (265°F)
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability	No data available
Vapor Pressure	No data available
Vapor density	No data available
Relative density (g/cc)	1.0±0.05
Water Solubility	Slight
Coefficient: n-octanol/ water	No data available
Auto-ignition temperature	No data available
Viscosity	No data available
Explosive Properties	None
Oxidizing Properties	None
% Volatile	0%

Section 10 Stability and Reactivity

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

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
None.

10.4 Conditions to avoid
Accidental mixing with epoxy resins.

10.5 Incompatible materials
Amines, bases, and acids, strong oxidizing materials.

10.6 Hazardous decomposition products
Thermal oxidative decomposition can produce CO, CO_2, nitrogen oxides, and undetermined organic materials.

Section 11 Toxicological Information

11.1 Information on toxicological effects

Acute Oral toxicity	Low toxicity
Acute Inhalation toxicity	Irritation
Acute Dermal toxicity	Low toxicity
Skin corrosion/irritation	Mild skin irritant, may cause an allergic skin reaction
Serious eye damage/eye irritation	Mild eye irritant
Respiratory or skin sensitization	No data available
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Reproductive toxicity	Not expected to be a hazard
Specific target organ toxicity - single exposure	None expected
Specific target organ toxicity - repeated exposure	None expected

Section 12 Ecological Information

12.1 Toxicity	Harmful to aquatic life
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	No data available
12.5 Results of PBT & vPvB assessment	No data available

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TSCA Inventory Status: All ingredients listed on TSCA inventory requirements.

15.2 State Regulations

California Proposition 65: None listed

Section 16 Other Information

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