

Miapoxy 101 Epoxy Laminating Resin

Section 1 Identification

Product identifiers

Product name: Miapoxy 101 Epoxy Laminating 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 & Supply Company

1101 Moore Road, Avon, OH 44011

Phone (440) 934-1902

FAX (440) 934-7200

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, H615

Serious Eye Damage/Eye Irritation, Category 2, H319

Skin Sensitization, Category 1, H317

Chronic Aquatic Toxicity, Category 2, H411

GHS Label elements, including precautionary statements



Warning

Hazard Statements

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effect.

Precautionary Statements

Prevention: P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear, protective gloves, clothing, and eye/face protection.

Response: P301+P312 IF SWALLOWED: Call POISON CENTER and/or doctor if you feel unwell.

P391 Collect spillage. P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P333+P313 If skin irritation or rash occurs: Get medical attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351 +P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical attention.

Storage: P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Disposal: P501 Dispose of contents and containers in accordance with local, regional and international regulations.

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

None known

Miapoxy 101 Epoxy Laminating Resin

Section 3 Composition/Information on Ingredients

Ingredient Name	CAS Number	Concentration (%)
Bisphenol A Epoxy Resin	25068-38-6	70-90
Alkyd Glycidyl Ether.	68609-97-2	10-20

Amounts specified are typical and do not represent a specification. Remaining components are non-hazardous, and/or present at amounts below reportable limits.

Section 4 First-Aid Measures

Description of necessary first-aid measures

INHALATION: If affected, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.

SKIN: Immediately remove contaminated clothing and shoes. Wash the affected area with plenty of soap and water until no evidence of the chemical remains (at least 15-20 minutes).

Launder clothing before reuse. Get medical attention if symptoms occur.

EYES: Immediately flush eyes with plenty of clean water for an extended time, not less than fifteen (15) minutes. Flush longer if there is any indication of residual chemical in the eye. Ensure adequate flushing of the eyes by separating the eyelids with fingers and roll eyes in a circular motion.

INGESTION: Do not induce vomiting. Never give anything by mouth to an unconscious person.

Rinse out the mouth with water. Get medical attention immediately.

Most important symptoms and effects, acute and delayed

Irritation. Pre-existing skin problems may be aggravated by prolonged or repeated contact.

See section 11 for additional information.

Indication of immediate medical attention and special treatment needed if necessary

Treat symptomatically.

Section 5 Fire-Fighting Measures

Extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Do not use high volume water jet.

Unusual fire & explosion hazards

Product is not considered a fire hazard, but will burn if ignited. Closed container may rupture (due to build up in pressure) when exposed to extreme heat.

Hazardous combustion products

Irritating or toxic substances may be emitted upon burning, combustion or decomposition.

See Section 10 Hazardous decomposition products for additional information.

Advice for firefighters

Wear self-contained breathing apparatus (SCBA) equipped with a full face piece and operated in a pressure-demand mode (or other positive pressure mode) and approved protective clothing. Personnel without suitable respiratory protection must leave the area to prevent significant exposure to hazardous gases from combustion, burning or decomposition. In an enclosed or poorly ventilated area, wear SCBA during cleanup immediately after a fire as well as during the attack phase of firefighting operations. See section 9 for additional information.

Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

See Section 8 for recommendations on the use of personal protective equipment. If spilled in an enclosed area, ventilate. Eliminate ignition sources. Personal Protective Equipment must be worn.

Miapoxy 101 Epoxy Laminating Resin

Section 6 Accidental Release Measures

Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Contain by diking with sand, earth or other non-combustible material. Wear proper personal protective clothing and equipment. Absorb spill with an inert material. Place into labeled, closed container; store in safe location to await disposal. Change contaminated clothing and launder before reuse.

Section 7 Handling and Storage

Precautions for safe handling

As with any chemical product, use good laboratory/workplace procedures. Do not cut, puncture, or weld on or near the container. Use under well-ventilated conditions. Wash thoroughly after handling this product. Always wash up before eating, smoking or using the facilities. Avoid eye and skin contact. Avoid inhalation of aerosol, mist, spray, fume or vapor. Avoid drinking, tasting, swallowing or ingesting this product. Wash contaminated clothing before reuse. Discard shoes contaminated with this product.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flames. Store dry at 15-40°C, under well-ventilated conditions. Store this material away from incompatible substances (see section 1 0). Do not store in open, unlabeled or mislabeled containers. Keep container closed when not in use. Empty container contains residual product which may exhibit hazards of product. Do not reuse empty container without commercial cleaning or reconditioning.

Section 8 Exposure Controls/Personal Protection

Components with workplace control parameters

Occupational Exposure Limits: No data available

Exposure controls

Appropriate engineering controls: Always provide effective general and, when necessary, local exhaust ventilation to draw spray, aerosol, fume, mist and vapor away from workers to prevent routine inhalation. Ventilation must be adequate to maintain air concentrations below occupational exposure standards. When necessary use mechanical handling to reduce human contact with materials.

Personal protective equipment

Eye/face protection: Safety glasses or goggles required.

Skin protection: Wear chemical resistant (impervious) gloves; PVC, neoprene, nitrile rubber, EVAL, butyl rubber. Wear chemical resistant protective clothing. Use good laboratory/workplace procedures including personal protective clothing: lab coat and protective gloves.

Respiratory protection: Wear an approved respirator (e.g., an organic vapor respirator, a full-face air purifying respirator for organic vapors, or a self-contained breathing apparatus) whenever exposure to aerosol, mist, spray, fume or vapor exceed the applicable exposure limit(s) of any chemical substance listed in this SDS.

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.

Miapoxy 101 Epoxy Laminating Resin

Section 9 Physical and Chemical Properties

Appearance	Amber viscous liquid	Upper/lower flammability	No data available
Odor	Slight epoxy-like	Vapor pressure	<1mm Hg (20°C)
Odor threshold	No data available	Vapor density	No data available
pH	No data available	Relative density	1.11
Melting point	No data available	Water solubility	Negligible
VOC Content	No data available	Coefficient: n-octanol/ water	No data available
Initial boiling point	No data available	Auto-ignition temperature	No data available
Flash point (closed cup)	>94°C (>200°F)	Viscosity, dynamic	700 mPa (25°C)
Evaporation rate	No data available	Explosive properties	No data available
Flammability (solid, gas)	No data available	Oxidizing properties	No data available

Section 10 Stability and Reactivity

Reactivity	Exothermic reactions including polymerization may occur in contact with amines, strong acids, strong bases, alcohols, strong oxidizing agents and excessive heat.
Chemical stability	Stable under recommended storage conditions
Possibility of hazardous reactions	Exothermic reactions including polymerization may occur in contact with amines, strong acids, strong bases, alcohols, strong oxidizing agents and excessive heat.
Conditions to avoid	Excessive heat and ignition sources.
Incompatible materials	Avoid strong acids, bases, amines, and oxidizing agents.
Hazardous decomposition products	Thermal decomposition may produce smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Phenolics.

Section 11 Toxicological Information

Acute oral toxicity	No data available on the product
Acute inhalation toxicity	No data available on the product
Acute dermal toxicity	No data available on the product
Skin corrosion/irritation	Irritating to skin
Serious eye damage/eye irritation	Causes serious eye irritant
Respiratory or skin sensitization	May cause skin sensitization
Germ cell mutagenicity	No data available on the product
Carcinogenicity	No data available on the product
Reproductive toxicity	No data available on the product
Specific target organ toxicity	
- single exposure	No data available on the product
- repeated exposure	No data available on the product

Section 12 Ecological Information

Toxicity	Harmful to aquatic life
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

Miapoxy 101 Epoxy Laminating Resin**Section 13 Disposal Considerations**

The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company. Dispose of as hazardous waste in compliance with local and national regulations. Dispose of contents/ container to an approved waste disposal plant. Do not re-use empty containers.

Section 14 Transport Information

Hazard Class: 9

Shipping Name: Environmentally hazardous substance, liquid, N.O.S. (Epoxy Resin)

ID No.: UN 3082

Packing Group: III

Label: Class 9

ERG Code: 171

Marine pollutant: Yes (Epoxy Resin)

Section 15 Regulatory Information**Safety, Health and Environmental Regulations**

EU Regulation (EC) No. 1907/2006 (REACH): Annex XIV- List of substances subject to authorization,

Substances of very high concern: None of the components are listed

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: None of the components are listed

SARA 311/312: None

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Proposition 65: This product does not contain chemicals which are known to the State of California to cause cancer or other reproductive harm.

For more information, go to www.P65Warnings.ca.gov.

Inventories

U.S. Toxic Substances Control Act TSCA: all intentionally added components are either listed or compliant

Canadian Domestic Substances List (DSL): all intentionally added components are either listed or compliant

European Inventory of Existing Chemical Substances (EINECS): all intentionally added components are either listed or compliant

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: Mia 195 Epoxy Laminating Hardener

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 & Supply Company

1101 Moore Road, Avon, OH 44011

Phone (440) 934-1902

FAX (440) 934-7200

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, H312

Skin Corrosion: Category 1, H314

Eye Damage: Category 2, H319

Skin sensitization: Category 1, H317

Hazardous to the aquatic environment: Chronic Category 3, H412

GHS Label elements, including precautionary statements



Danger

Hazard Statements

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention: P260 Do not breathe mists.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves, clothing, and eye/face protection.

Response: P301+P330+P331+P3121F SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Call POISON CENTER and/or doctor if you feel unwell.

P303+P361+P364+P353+P352 IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash before reuse. Rinse skin with water/shower. Wash with plenty of soap and water.

P333+P313 If skin irritation or rash occurs: Get medical attention.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310 Immediately call a POISON CENTER or doctor.

P305+P351 +P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P391 Collect spillage.

Mia 195 Epoxy Laminating Hardener

Section 2 Hazards Identification

Storage: P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Disposal: P501 Dispose of contents and containers in accordance with local, regional and international regulations.

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

None known

Section 3 Composition/Information on Ingredients

Ingredient Name	CAS Number	Concentration (%)
TETA/Propylene oxide reaction products	26950-63-0	>75
Triethylenetetramine	112-24-3	<25

Amounts specified are typical and do not represent a specification. Remaining components are non-hazardous, and/or present at amounts below reportable limits.

Section 4 First-Aid Measures

Description of necessary first-aid measures

INHALATION: If affected, remove to fresh air. If breathing is difficult, give oxygen.

If not breathing, give artificial respiration.

SKIN: Immediately remove contaminated clothing and shoes. Wash the affected area with plenty of soap and water until no evidence of the chemical remains (at least 15-20 minutes).

Launder clothing before reuse. Get medical attention if symptoms occur.

EYES: Immediately flush eyes with plenty of clean water for an extended time, not less than fifteen (15) minutes. Flush longer if there is any indication of residual chemical in the eye. Ensure adequate flushing of the eyes by separating the eyelids with fingers and roll eyes in a circular motion. Get medical attention immediately.

INGESTION: Do not induce vomiting. Never give anything by mouth to an unconscious person.

Rinse out the mouth with water. Get medical attention immediately.

Most important symptoms and effects, acute and delayed

Burns. Irritation. Pre-existing skin problems may be aggravated by prolonged or repeated contact.

Persons with sensitive airways (e.g., asthmatics) may react to vapors. See section 11 for additional information.

Indication of immediate medical attention and special treatment needed if necessary

Treat symptomatically.

Section 5 Fire-Fighting Measures

Extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Do not use high volume water jet.

Unusual fire & explosion hazards

Product is not considered a fire hazard, but will burn if ignited. Closed container may rupture (due to build up in pressure) when exposed to extreme heat.

Hazardous combustion products

Irritating or toxic substances may be emitted upon burning, combustion or decomposition.

See Section 10 Hazardous decomposition products for additional information.

Advice for firefighters

Wear self-contained breathing apparatus (SCBA) equipped with a full face piece and operated in a pressure-demand mode (or other positive pressure mode) and approved protective clothing. Personnel without suitable respiratory protection must leave the area to prevent significant exposure to hazardous gases from combustion, burning or decomposition. In an enclosed or poorly ventilated area, wear SCBA during cleanup immediately after a fire as well as during the attack phase of firefighting operations. See section 9 for additional information.

Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

See Section 8 for recommendations on the use of personal protective equipment. If spilled in an enclosed area, ventilate. Eliminate ignition sources. Personal Protective Equipment must be worn.

Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Contain by diking with sand, earth or other non-combustible material. Wear proper personal protective clothing and equipment. Absorb spill with an inert material. Place into labeled, closed container; store in safe location to await disposal. Change contaminated clothing and laundry before reuse.

Section 7 Handling and Storage

Precautions for safe handling

As with any chemical product, use good laboratory/workplace procedures. Do not cut, puncture, or weld on or near the container. Use under well-ventilated conditions. Wash thoroughly after handling this product. Always wash up before eating, smoking or using the facilities. Avoid eye and skin contact. Avoid inhalation of aerosol, mist, spray, fume or vapor. Avoid drinking, tasting, swallowing or ingesting this product. Wash contaminated clothing before reuse. Discard shoes contaminated with this product.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flames. Store dry at 15-40°C, under well-ventilated conditions. Store this material away from incompatible substances (see section 1 0). Do not store in open, unlabeled or mislabeled containers. Keep container closed when not in use. Empty container contains residual product which may exhibit hazards of product. Do not reuse empty container without commercial cleaning or reconditioning.

Section 8 Exposure Controls/Personal Protection

Components with workplace control parameters

Occupational Exposure Limits: No data available

Exposure controls

Appropriate engineering controls: Always provide effective general and, when necessary, local exhaust ventilation to draw spray, aerosol, fume, mist and vapor away from workers to prevent routine inhalation. Ventilation must be adequate to maintain air concentrations below occupational exposure standards. When necessary use mechanical handling to reduce human contact with materials.

Personal protective equipment

Eye/face protection: Full face shield with safety glasses or goggles underneath required.

Skin protection: Wear chemical resistant (impervious) gloves; PVC, neoprene, nitrile rubber, EVAL, butyl rubber. Wear chemical resistant protective clothing. Use good laboratory/workplace procedures including personal protective clothing: lab coat and protective gloves.

Respiratory protection: Wear an approved respirator (e.g., an organic vapor respirator, a full-face air purifying respirator for organic vapors, or a self-contained breathing apparatus) whenever exposure to aerosol, mist, spray, fume or vapor exceed the applicable exposure limit(s) of any chemical substance listed in this SDS.

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.

Mia 195 Epoxy Laminating Hardener

Section 9 Physical and Chemical Properties

Appearance	Amber liquid	Upper/lower flammability	No data available
Odor	Amine, fish-like	Vapor pressure	<1mm Hg (21°C)
Odor threshold	No data available	Vapor density	No data available
pH	No data available	Relative density	1.02
Melting point	No data available	Water solubility	Soluble
VOC Content	No data available	Coefficient: n-octanol/ water	No data available
Initial boiling point	>94°C (>200°F)	Auto-ignition temperature	No data available
Flash point (closed cup)	175°C (347°F)	Viscosity, dynamic	No data available
Evaporation rate	No data available	Explosive properties	No data available
Flammability (solid, gas)	No data available	Oxidizing properties	No data available

Section 10 Stability and Reactivity

Reactivity	Exothermic reactions including polymerization may occur in contact with amines, strong acids, strong bases, alcohols, strong oxidizing agents and excessive heat.
Chemical stability	Stable under recommended storage conditions
Possibility of hazardous reactions	Exothermic reactions including polymerization may occur in contact with amines, strong acids, strong bases, alcohols, strong oxidizing agents and excessive heat.
Conditions to avoid	Excessive heat and ignition sources.
Incompatible materials	Avoid strong acids, bases, nitrites, and oxidizing agents.
Hazardous decomposition products	Thermal decomposition may produce smoke, carbon monoxide, carbon dioxide, aldehydes, oxides of nitrogen and other products of incomplete combustion.

Section 11 Toxicological Information

Acute oral toxicity	Harmful if swallowed.
Acute inhalation toxicity	Exposure to vapors or mists may cause severe irritation and burns of the nose, throat, and respiratory tract.
Acute dermal toxicity	Harmful in contact with skin.
Skin corrosion/irritation	Causes severe skin burns.
Serious eye damage/eye irritation	Causes eye burns
Respiratory or skin sensitization	May cause allergic skin reaction.
Germ cell mutagenicity	No data available on the product
Carcinogenicity	No data available on the product
Reproductive toxicity	No data available on the product
Specific target organ toxicity	
- single exposure	No data available on the product
- repeated exposure	No data available on the product

Section 12 Ecological Information

Toxicity	Harmful to aquatic life
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

Mia 195 Epoxy Laminating Hardener

Section 13 Disposal Considerations

The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company. Dispose of as hazardous waste in compliance with local and national regulations. Dispose of contents/ container to an approved waste disposal plant. Do not re-use empty containers.

Section 14 Transport Information

DOT/IMDG/IATA Not dangerous goods

Section 15 Regulatory Information

Safety, Health and Environmental Regulations

EU Regulation (EC) No. 1907/2006 (REACH): Annex XIV- List of substances subject to authorization, Substances of very high concern: None of the components are listed

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: None of the components are listed

SARA 311/312: None

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Proposition 65: This product does not contain chemicals which are known to the State of California to cause cancer or other reproductive harm.

For more information, go to www.P65Warnings.ca.gov.

Inventories

U.S. Toxic Substances Control Act TSCA: all intentionally added components are either listed or compliant

Canadian Domestic Substances List (DSL): all intentionally added components are either listed or compliant

European Inventory of Existing Chemical Substances (EINECS): all intentionally added components are either listed or compliant

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.