

Fre-Weld 8103 Epoxy Adhesive Part A (Resin)

Section 1 Identification

Product identifiers

Fre-Weld 8103 Epoxy Adhesive Part A (Resin)
Fre-Weld 8103 Orange Epoxy Adhesive Part A (Resin)
Fre-Weld 8103 Red Epoxy Adhesive Part A (Resin)

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

Resin component of two-part epoxy adhesive. For Industrial / Professional Use Only

Details of the supplier of the Safety Data Sheet

Freeman Manufacturing & Supply Company
1101 Moore Road, Avon, OH 44011 USA
Telephone: +1 800 321-8511
Email: contactus@freemansupply.com

24 Hour emergency telephone number
CHEMTREC 1-800-424-9300

Section 2 Hazards Identification

Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

Skin irritation, Category 2
Eye irritation, Category 2A
Skin sensitization, Category 1

Label Elements



Warning

Hazard Statements

H315 – Causes skin irritation
H319 – Causes serious eye irritation
H317 May cause an allergic skin reaction.

Precautionary Statements

Avoid breathing dust/fume/gas/mist/vapors/spray
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves / eye protection / face protection.
If on skin: Wash with plenty of water.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Take off contaminated clothing and wash it before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
Specific treatment (see on this label).
If eye irritation persists: Get medical advice/attention.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards not otherwise classified

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

Fre-Weld 8103 Clear Epoxy Adhesive Part A (Resin)

Section 3 Composition/Information on Ingredients

Mixture

Ingredient Name	CAS Number	Weight (%)
Reaction product: bisphenol-A-(epichlorohydrin), epoxy resin (number average molecular weight ≤ 700)	25068-38-6	45-70
Hydrogenated bisphenol A epoxy resin	30583-72-3	15-40

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4 First Aid Measures

Description of first aid measures

After inhalation: Supply fresh air and consult a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly. If symptoms persist, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: If symptoms persist consult doctor.

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

Section 5 Fire-Fighting Measures

Suitable Extinguishing Media

Use firefighting measures that suit the environment.

Specific Hazards Arising from the Chemical

No further relevant information available.

Special Protective Equipment and Precautions for Firefighters

Firefighters must use standard protective equipment including self-contained breathing apparatus (SCBA) and protective clothing.

Section 6 Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures

Keep unnecessary personnel away. Avoid contact with skin or inhalation of spillage, dust or vapor.

Wear appropriate protective clothing.

Environmental Precautions

Avoid releases to the environment. Retain and dispose of contaminated wastewater.

Keep out of sewers and drains. Contact local authorities if case of spillage to drain or environment.

Clean-Up Methods and Materials

Ensure adequate ventilation. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent. Dispose contaminated material as waste according to section 13.

Fre-Weld 8103 Clear Epoxy Adhesive Part A (Resin)

Section 7 Handling and Storage

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

Conditions for safe storage, including any incompatibilities

Keep containers tightly sealed.

Section 8 Exposure Controls/Personal Protection

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Appropriate engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

Personal Protective Equipment (PPE)

Eye Protection: Wear tightly sealed goggles.

Skin Protection: Wear chemical resistant gloves that are impermeable and resistant to the product.

Respiratory Protection: In case of insufficient ventilation, wear an approved (NIOSH) respirator with organic vapor cartridge and dust/mist pre-filter.

Safety stations

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

General hygienic practices

Avoid breathing vapor or mist. Avoid contact with the eyes and skin. Wash thoroughly after handling materials. Avoid contamination of food, beverages, or smoking. Clean contaminated clothing thoroughly before reuse. Store protective clothing separately.

Section 9 Physical and Chemical Properties

Appearance	Viscous liquid, color varies (clear, orange, or red)
Odor	Slight
Odor threshold	No data available
pH	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	>120 °C (>248 °F)
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable
Upper/lower explosion limits	No data available
Vapor pressure at 20°C	No data available
Vapor pressure at 50°C	No data available
Vapor density	Not determined.
Density at 20°C	1.1 g/cm ³ (9.1795 lb./gal)
Water Solubility	Fully miscible
Coefficient: n-octanol/water	No data available
Auto-ignition temperature	Product is not self-igniting.
Decomposition temperature	No data available
Viscosity	7,000 cP
VOC content	0% by weight

Fre-Weld 8103 Clear Epoxy Adhesive Part A (Resin)

Section 10 Stability and Reactivity

Reactivity: No further relevant information available.
Chemical stability: Stable if used according to specifications.
Possibility of hazardous reactions: No dangerous reactions known.
Conditions to avoid: No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: No dangerous decomposition products known.

Section 11 Toxicological Information

Acute Toxicity Estimate

Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4 hours
5,714 mg/kg	Not established	Not established

Acute Toxicity Values

Ingredient Name	Oral LD50 (rat)	Dermal LD50 (rabbit)
Hydrogenated bisphenol-A epoxy resin (30583-72-3)	2,000 mg/kg	Not established

Primary irritant effects

Skin Irritation / Corrosion: Irritant to skin and mucous membranes.
Eye Damage / Irritation: Irritating effect.
Respiratory Sensitization: No specific data
Skin Sensitization: Sensitization possible through skin contact.

Chronic health effects

Germ cell mutagenicity: No specific data
Carcinogenicity: No ingredients are listed (IARC, NTP, OSHA).
Reproductive Toxicity: No data available
Specific Target Organ Toxicity (STOT), single exposure: No data available
Specific Target Organ Toxicity (STOT), repeated exposure: No data available
Aspiration Hazard: No data available

Section 12 Ecological Information

Ecotoxicity: No further relevant information available.
Persistence and degradability: No further relevant information available.
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Results of PBT and vPvB assessment: Not applicable
Water hazard class 2 (Self-assessment): Hazardous for water. Do not allow product to reach ground water, water course, or sewage system. Danger to drinking water if even small quantities leak into the ground.

Section 13 Disposal Considerations

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of via a licensed waste disposal contractor.

Fre-Weld 8103 Clear Epoxy Adhesive Part A (Resin)

Section 14 Transport Information

DOT, IMDG, IATA

Not regulated

Section 15 Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Emergency Planning and Community Right-To-Know Act (EPCRA), Section 302: Product does not contain any listed Extremely Hazardous Substances

EPCRA, Section 313: Product does not contain any listed Toxic Chemicals.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA): Product does not contain any listed Hazardous Substances

Section 112(r)(7) of the Clean Air Act (CAA): Product does not contain any Regulated Chemicals for Accidental Release

Section 311(j)(5) of the Clean Water Act (CWA): Product does not contain any listed Hazardous Substances

Toxic Substances Control Act (TSCA): All components have the value ACTIVE.

California Proposition 65: This product is not known to contain any chemicals which are known to the State of California to cause cancer, birth defect, and other reproductive harm.

For more information, visit www.P65Warnings.ca.gov.

Section 16 Other Information

HMIS

Health 2

Flammability 1

Reactivity 0

NFPA



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Initial issue date: September 20, 2022

Previous Revision Date: June 10, 2024

Current revision date: January 21, 2025

Fre-Weld 8103 Epoxy Adhesive Part B (Hardener)

Section 1 Identification

Product identifiers

Fre-Weld 8103 Epoxy Adhesive Part B (Hardener)
Fre-Weld 8103 Orange Epoxy Adhesive Part B (Hardener)
Fre-Weld 8103 Red Epoxy Adhesive Part B (Hardener)

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

Hardener component of two-part epoxy adhesive. For Industrial / Professional Use Only

Details of the supplier of the Safety Data Sheet

Freeman Manufacturing & Supply Company
1101 Moore Road, Avon, OH 44011 USA
Telephone: +1 800 321-8511
Email: contactus@freemansupply.com

24 Hour emergency telephone number
CHEMTREC 1-800-424-9300

Section 2 Hazards Identification

Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

Acute toxicity – oral, Category 4
Skin corrosion, Category 1B
Skin sensitization, Category 1
Reproductive toxicity, Category 2

Label Elements



Danger

Hazard Statements

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child.

Precautionary Statements

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dusts or mists.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center/doctor.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
If exposed or concerned: Get medical advice/attention.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Fre-Weld 8103 Epoxy Adhesive Part B (Hardener)

Section 2 Hazards Identification

Hazards not otherwise classified

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

Section 3 Composition/Information on Ingredients

Mixture

Ingredient Name	CAS Number	Weight (%)
4-nonylphenol, Branched	84852-15-3	10-30
2-piperazin-1-ylethylamine	140-31-8	10-30
Benzyl alcohol	100-51-6	10-30
3,6-diazaoctanethylenediamin	112-24-3	1-5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4 First Aid Measures

Description of first aid measures

After inhalation: Supply fresh air and consult a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately remove any clothing contaminated by the product.

Immediately wash with water and soap and rinse thoroughly. If symptoms persist, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water, then consult a doctor.

After swallowing: Immediately call a doctor. Drink copious amounts of water and provide fresh air.

Most important symptoms and effects, both acute and delayed

Symptoms of poisoning may even occur after several hours; provide medical observation for at least 48 hours after the accident.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

Section 5 Fire-Fighting Measures

Suitable Extinguishing Media

Use firefighting measures that suit the environment.

Specific Hazards Arising from the Chemical

During heating or in case of fire poisonous gases are produced.

Special Protective Equipment and Precautions for Firefighters

Firefighters must use standard protective equipment including self-contained breathing apparatus (SCBA) and protective clothing.

Section 6 Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures

Keep unnecessary personnel away. Avoid contact with skin or inhalation of spillage, dust or vapor.

Wear appropriate protective clothing.

Fre-Weld 8103 Epoxy Adhesive Part B (Hardener)

Section 6 Accidental Release Measures

Environmental Precautions

Avoid releases to the environment. Retain and dispose of contaminated wastewater.
Keep out of sewers and drains. Contact local authorities if case of spillage to drain or environment.

Clean-Up Methods and Materials

Ensure adequate ventilation. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent. Dispose contaminated material as waste according to section 13.

Section 7 Handling and Storage

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

Conditions for safe storage, including any incompatibilities

Keep containers tightly sealed.

Section 8 Exposure Controls/Personal Protection

Components with limit values that require monitoring at the workplace:

Ingredient Name	Workplace Environmental Exposure Limits (WEEL)
Benzyl alcohol (100-51-6)	Long-term value: 10 ppm
Triethylenetetramine (112-24-3)	Long-term value, Skin: 6 mg/m ³ , 1 ppm

Appropriate engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

Personal Protective Equipment (PPE)

Eye Protection: Wear tightly sealed goggles.

Skin Protection: Wear chemical resistant gloves that are impermeable and resistant to the product.

Respiratory Protection: In case of insufficient ventilation, wear an approved (NIOSH) respirator with organic vapor cartridge and dust/mist pre-filter.

Safety stations

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

General hygienic practices

Avoid breathing vapor or mist. Avoid contact with the eyes and skin. Wash thoroughly after handling materials. Avoid contamination of food, beverages, or smoking. Clean contaminated clothing thoroughly before reuse. Store protective clothing separately.

Section 9 Physical and Chemical Properties

Appearance	Amber-brown viscous liquid
Odor	Amine-like
Odor threshold	No data available
pH	No data available
Freezing point	No data available
Boiling point	205 °C (401 °F)
Flash point	100 °C (212 °F)
Evaporation rate	No data available
Flammability (solid, gas)	No data available

Fre-Weld 8103 Epoxy Adhesive Part B (Hardener)

Section 9 Physical and Chemical Properties

Upper/lower explosion limits	1.3 Vol % / 13 Vol %
Vapor pressure at 20 °C	0.1 hPa (0.075 mm Hg)
Vapor pressure at 50°C	0.7 hPa (0.525 mm Hg)
Vapor density	No data available
Density at 20°C	0.97 g/cm ³ (8.09465 lb./gal)
Water Solubility	Fully miscible
Coefficient: n-octanol/water	No data available
Auto-ignition temperature	315 °C (599 °F)
Decomposition temperature	No data available
Viscosity	5,000 cP
VOC content	135.8 g/l (1.13 lb./gal)

Section 10 Stability and Reactivity

Reactivity: No further relevant information available.
Chemical stability: Stable if used according to specifications.
Possibility of hazardous reactions: No dangerous reactions known.
Conditions to avoid: No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: No dangerous decomposition products known.

Section 11 Toxicological Information

Acute Toxicity Estimate

Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4 hours
<1,338 mg/kg	>3,562 mg/kg	78.6 mg/l

Acute Toxicity Values

Ingredient Name	Oral LD50 (rat)	Dermal LD50 (rabbit)
2-piperazin-1-ylethylamine (140-31-8)	2,140 mg/kg	880 mg/kg
Benzyl alcohol (100-51-6)	1,230 mg/kg	2,000 mg/kg
Triethylenetetramine (112-24-3)	2,500 mg/kg	805 mg/kg

Primary irritant effects

Skin Irritation / Corrosion: Caustic effect on skin and mucous membranes.
Eye Damage / Irritation: Strong caustic effect. Strong irritant with the danger of severe eye injury.
Respiratory Sensitization: No specific data
Skin Sensitization: Sensitization possible through skin contact.

Chronic health effects

Germ cell mutagenicity: No specific data
Carcinogenicity: No ingredients are listed (IARC, NTP, OSHA).
Reproductive Toxicity: No data available
Specific Target Organ Toxicity (STOT), single exposure: Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
Specific Target Organ Toxicity (STOT), repeated exposure: No data available
Aspiration Hazard: No data available

Fre-Weld 8103 Epoxy Adhesive Part B (Hardener)

Section 12 Ecological Information

Ecotoxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Results of PBT and vPvB assessment: Not applicable

Water hazard class 3 (Self-assessment): Extremely hazardous for water Do not allow product to reach ground water, water course or sewage system, even in small quantities. Must not reach bodies of water or drainage ditch undiluted or unneutralized. Danger to drinking water if even extremely small quantities leak into the ground.

Section 13 Disposal Considerations

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of via a licensed waste disposal contractor.

Section 14 Transport Information

DOT

UN1760 Corrosive liquids, n.o.s. (4-nonylpheno l, Branched, N-Aminoethylpiperazine), 8, II.

Quantity limitations: On passenger aircraft/rail: 1 L, On cargo aircraft only: 30 L

IMDG

UN1760, CORROSIVE LIQUID, N.O.S. (4-nonylphenol, Branched, NAMINOETHYLPIPERAZINE), 8, II.

Limited quantities (LQ): 1L

Excepted quantities (EQ): Code E2, Maximum net quantity per inner packaging: 30 ml,

Maximum net quantity per outer packaging: 500 ml

IATA

UN1760, CORROSIVE LIQUID, N.O.S. (4-nonylphenol, Branched, NAMINOETHYLPIPERAZINE) , 8, II.

Environmental hazards

Product contains environmentally hazardous substances: 4-nonylphenol, Branched

Section 15 Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Emergency Planning and Community Right-To-Know Act (EPCRA), Section 302: Product does not contain any listed Extremely Hazardous Substances

EPCRA, Section 313: Product contains listed Toxic Chemical 4-Nonylphenol, branched (84852-15-3).

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA): Product does not contain any listed Hazardous Substances

Section 112(r)(7) of the Clean Air Act (CAA): Product does not contain any Regulated Chemicals for Accidental Release

Section 311(j)(5) of the Clean Water Act (CWA): Product does not contain any listed Hazardous Substances

Toxic Substances Control Act (TSCA): All components have the value ACTIVE.

California Proposition 65: This product is not known to contain any chemicals which are known to the State of California to cause cancer, birth defect, and other reproductive harm.

For more information, visit www.P65Warnings.ca.gov.

Fre-Weld 8103 Epoxy Adhesive Part B (Hardener)

Section 16 Other Information

HMIS

Health 3
Flammability 1
Reactivity 0

NFPA



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Initial issue date: September 20, 2022

Previous Revision Date: June 10, 2024

Current revision date: January 21, 2025