

PRO-SET® XR28A Resin

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Date of issue: 06/01/2015

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Version: XR28A-2016a

SECTION 1: Identification

Identification

Product form : Mixtures
Product name : PRO-SET® XR28A Resin
Product code : XR28A, XR28A-1, XR28A-2, XR28A-4

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

Recommended use : Fire retardant resin applications.

Details of the supplier of the safety data sheet

Manufacturer

Gougeon Brothers, Inc
100 Patterson Ave.
Bay City, MI 48706 - U.S.A.
T 888-377-6738 or 989-684-7286
www.prosetepoxy.com

Emergency telephone number

Emergency number : CHEMTREC 1 (800) 424-9300
CHEMTREC International +1 (703) 527-3887 24 hr

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

Skin Irrit. 2
Eye Irrit. 2A
Skin Sens. 1
Muta. 1B
Repr. 2
Aquatic Chronic 2

Label elements

Hazard pictograms (GHS)



GHS07

GHS08

GHS09

Signal word (GHS)

Danger

Hazard statements (GHS)

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause genetic defects. Suspected of damaging fertility or the unborn child. Toxic to aquatic life with long lasting effects

Precautionary statements (GHS)

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. If exposed or concerned: Get medical advice/attention. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Collect spillage. Store locked up. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

Other hazards

No additional information available.

Unknown acute toxicity

No additional information available.

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SECTION 3: Composition/information on ingredients

Substance

Not applicable

Mixtures

| Name | Product identifier | % |
|---|---------------------|----------|
| Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer | (CAS No) 25085-99-8 | 60 - 100 |
| Oxirane, 2,2'-[(2,2-dimethyl-1,3-propanediyl)bis(oxymethylene)]bis- | (CAS No) 17557-23-2 | 10 - 30 |
| Phosphonic acid, methyl-, dimethyl ester | (CAS No) 756-79-6 | 1 - 10 |

The exact chemical identity and/or exact percentage (concentration) of each ingredient may be held as confidential business information (CBI). Any ingredient not disclosed in this section may have been determined not to be hazardous to health or the environment, or it may be present at a level below its disclosure threshold. Refer to Section 15 for additional information regarding this CBI claim.

SECTION 4: First aid measures

Description of first aid measures

- First-aid measures after inhalation** : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact** : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact** : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.
- First-aid measures after ingestion** : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation** : May cause respiratory tract irritation.
- Symptoms/injuries after skin contact** : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
- Symptoms/injuries after eye contact** : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Symptoms/injuries after ingestion** : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

Extinguishing media

- Suitable extinguishing media** : Foam. Carbon dioxide. Dry chemical.
- Unsuitable extinguishing media** : Do not use a heavy water stream.

Special hazards arising from the substance or mixture

- Fire hazard** : Products of combustion may include, and are not limited to: oxides of carbon, phenolics. Oxides of phosphorous
- Reactivity** : No dangerous reaction known under conditions of normal use.

Advice for firefighters

- Protection during firefighting** : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

- General measures** : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

For non-emergency personnel

No additional information available.

For emergency responders

No additional information available.

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Environmental precautions

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. When mixed with epoxy curing agents this product causes an exothermic reaction, which in large masses, can produce enough heat to damage or ignite surrounding materials and emit fumes and vapors that vary widely in composition and toxicity.

Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking. Contaminated work clothing should not be allowed out of the workplace.

Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in dry, cool, well-ventilated area. Protect from moisture. Storage temperature : 40°F (4°C) - 120°F (49°C).

SECTION 8: Exposure controls/personal protection

Control parameters

| |
|---|
| Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer (25085-99-8) |
| Not applicable |
| Oxirane, 2,2'-[(2,2-dimethyl-1,3-propanediyl)bis(oxymethylene)]bis- (17557-23-2) |
| Not applicable |
| Phosphonic acid, methyl-, dimethyl ester (756-79-6) |
| Not applicable |

Exposure controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Hand protection : Wear chemically resistant protective gloves.

Eye protection : Wear eye/face protection.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls : Maintain levels below Community environmental protection thresholds.

Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Viscous liquid

Colour : Colourless

Odour : Mild

Odour threshold : No data available

pH : No data available

Melting point : No data available

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| | |
|---|---|
| Freezing point | : No data available |
| Boiling point | : > 400 °F (204 °C) Estimated based on ingredient data. |
| Flash point | : > 200 °F (93 °C) Based on ASTM D92 test results from similar product. |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Flammability (solid, gas) | : Non flammable. |
| Vapour pressure | : < 1 mm Hg @ 68 °F (20 °C) Estimated based on ingredient data. |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : 1.14 |
| Solubility | : No data available |
| Partition coefficient n-octanol/water | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : 478 mm ² /s @ 68 °F (20 °C) |
| Viscosity, dynamic | : No data available |
| Explosive limits | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Other information | |
| Bulk density | : 9.49 lb/gal (1.14 kg/L) |

SECTION 10: Stability and reactivity

| | |
|---|---|
| Reactivity | : No dangerous reaction known under conditions of normal use. |
| Chemical stability | : Stable under normal storage conditions. |
| Possibility of hazardous reactions | : No dangerous reaction known under conditions of normal use. A mass of more than one pound of product plus an aliphatic amine will cause irreversible polymerization with significant heat buildup. Strong acids, bases, amines and mercaptans can cause polymerization. |
| Conditions to avoid | : Heat. Incompatible materials. |
| Incompatible materials | : Strong acids. Bases. Amines. Mercaptans. |
| Hazardous decomposition products | : May include, and are not limited to: oxides of carbon, phenolics. Oxides of phosphorous |

SECTION 11: Toxicological information

Information on toxicological effects

| Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer (25085-99-8) | |
|---|---------------|
| LD50 oral rat | > 15000 mg/kg |
| LD50 dermal rabbit | > 23000 mg/kg |

| Oxirane, 2,2'-[(2,2-dimethyl-1,3-propanediyl)bis(oxymethylene)]bis- (17557-23-2) | |
|---|--------------|
| LD50 oral rat | 4500 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |

| Phosphonic acid, methyl-, dimethyl ester (756-79-6) | |
|--|----------------|
| LD50 oral rat | > 5000 mg/kg |
| LD50 dermal rabbit | > 4640 |
| LC50 inhalation rat | > 2.59 mg/l/4h |

| | |
|--|--|
| Acute toxicity (oral) | : Not classified. |
| Acute toxicity (dermal) | : Not classified. |
| Acute toxicity (inhalation) | : Not classified. |
| Skin corrosion/irritation | : Causes skin irritation. |
| Serious eye damage/irritation | : Causes serious eye irritation. |
| Respiratory or skin sensitization | : May cause an allergic skin reaction. |
| Germ cell mutagenicity | : May cause genetic defects. |
| Carcinogenicity | : Not classified. |
| Reproductive toxicity | : Suspected of damaging fertility or the unborn child. |

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| | |
|---|-------------------|
| Specific target organ toxicity (single exposure) | : Not classified. |
| Specific target organ toxicity (repeated exposure) | : Not classified. |
| Aspiration hazard | : Not classified. |

| | |
|---|--|
| PRO-SET® XR28A Resin | |
| Viscosity, kinematic (calculated value) | 478 mm ² /s @ 68 °F (20 °C) |

| | |
|---|---|
| Symptoms/injuries after inhalation | : May cause respiratory tract irritation. |
| Symptoms/injuries after skin contact | : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic skin reaction. |
| Symptoms/injuries after eye contact | : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. |
| Symptoms/injuries after ingestion | : May be harmful if swallowed. May cause stomach distress, nausea or vomiting. |
| Other information | : Likely routes of exposure: ingestion, inhalation, skin and eye. |

SECTION 12: Ecological information

Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

Persistence and degradability

| | |
|-------------------------------|------------------|
| PRO-SET® XR28A Resin | |
| Persistence and degradability | Not established. |

Bioaccumulative potential

| | |
|-----------------------------|------------------|
| PRO-SET® XR28A Resin | |
| Bioaccumulative potential | Not established. |

Mobility in soil

Other adverse effects

Effect on the global warming : No known effects from this product.

| Ingredient | CAS# | Ecotoxicity Classification Information |
|---|------------|--|
| Oxirane, 2,2'-[1-(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer | 25085-99-8 | Aquatic Chronic Cat. 2 |
| Oxirane, 2,2'-[(2,2-dimethyl-1,3-propanediyl)bis(oxymethylene)]bis- | 17557-23-2 | Not classified. |
| Phosphonic acid, methyl-, dimethyl ester | 756-79-6 | Not classified. |

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

Waste treatment methods

Product/Packaging disposal recommendations : Avoid release to the environment. This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

SECTION 14: Transport information

Department of Transportation (DOT) and Transportation of Dangerous Goods (TDG)

In accordance with DOT/TDG
Not regulated

Transport by sea

In accordance with IMDG

| | |
|-----------------------------|---|
| UN-No. (IMDG) | : 3082 |
| Proper Shipping Name (IMDG) | : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin) |
| Class (IMDG) | : 9 |
| Packing group (IMDG) | : III |

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EmS Number : F-A, S-F
Marine pollutant : Yes

Transport by sea

In accordance with IATA
UN-No. (IATA) : 3082
Proper Shipping Name (IATA) : Environmentally hazardous substance, liquid, n.o.s. (Epoxy Resin)
Class (IATA) : 9
Packing group (IATA) : III
Marine pollutant : Yes

SECTION 15: Regulatory information

15.1. Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory:

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories:

| Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer (25085-99-8) | |
|---|---|
| EPA TSCA Regulatory Flag | XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e, Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)). |

| Oxirane, 2,2'-[(2,2-dimethyl-1,3-propanediyl)bis(oxymethylene)]bis- (17557-23-2) | |
|---|--|
| EPA TSCA Regulatory Flag | T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA. |

| Epichlorohydrin (106-89-8) | |
|---|---------|
| Listed on the United States SARA Section 302 Subject to reporting requirements of United States SARA Section 313 | |
| CERCLA RQ | 100 lb |
| SARA Section 302 Threshold Planning Quantity (TPQ) | 1000 lb |
| SARA Section 313 - Emission Reporting | 0.1 % |

Canada WHMIS Confidential Business Information (CBI): The HMIRA number issued for this CBI claim is #10311. The date of filing is 2016-08-09

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer, developmental and/or reproductive harm

| Epichlorohydrin (106-89-8) | | | | |
|---|---|---|---|----------------------------------|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significant risk level (NSRL) |
| Yes | No | No | Yes | 9 µg/day |

| Epichlorohydrin (106-89-8) |
|---|
| U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances U.S. - Pennsylvania - RTK (Right to Know) List |

SECTION 16: Other information

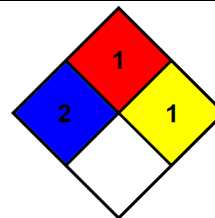
Date of issue : 06/01/2015
Revision date : 08/24/2016
Other information : None.

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NFPA health hazard : 2
NFPA fire hazard : 1
NFPA reactivity : 1



HMIS III Rating

Health : 2 Moderate Hazard
Flammability : 1 Slight Hazard
Physical : 1 Slight Hazard

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