

CPI Hardener

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: 08/24/2018

Revision date: 09/05/2019

Version: EH-CPI-2018b

SECTION 1: Identification

Identification

Product form : Mixture
Product name : CPI Hardener
Product code : EH-CPI, EH-CPI-2, EH-CPI-5, EH-CPI-6, CEH-CPI, CEH-CPI-2, CEH-CPI-5, CEH-CPI-6

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

Recommended use : Curing agent for epoxy resins

Details of the supplier of the safety data sheet

Manufacturer

Gougeon Brothers, Inc
100 Patterson Ave.
Bay City, MI 48706 - U.S.A.
T 310-882-2120 or 989-684-7286

Distributor

Emergency telephone number

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

SECTION 2: Hazard identification

Classification of the substance or mixture

Eye Dam. 1
Skin Sens. 1
Aquatic Chronic 3

Label elements

Hazard pictograms (GHS)



GHS05



GHS07

Signal word (GHS)

Danger

Hazard statements (GHS)

May cause an allergic skin reaction. Causes serious eye damage. Harmful to aquatic life with long lasting effects.

Precautionary statements (GHS)

Avoid breathing dust, fume, gas, mist, spray, vapours. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear eye protection, face protection, protective clothing, protective gloves. If on skin: Wash with plenty of water and soap. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Dispose of contents/container according to local, state, national and international regulations

Other hazards

Other hazards not contributing to the classification : No additional information available.

Unknown acute toxicity

Not applicable

SECTION 3: Composition/information on ingredients

Substances

Not applicable

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Mixtures

| Name | Product identifier | % |
|--|----------------------|----------|
| 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-, polymer with methyloxirane | (CAS-No.) 26950-63-0 | 75 - 100 |
| Triethylenetetramine | (CAS-No.) 112-24-3 | 1 - 25 |

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.

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 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. Get medical attention immediately.
- 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/effects after inhalation** : May cause respiratory tract irritation.
- Symptoms/effects after skin contact** : May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
- Symptoms/effects after eye contact** : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
- Symptoms/effects 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: Fire-fighting 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. Nitrogen oxides. Amines. Ammonia. When mixed with sawdust, wood chips, or other cellulosic material, spontaneous combustion can occur under certain conditions. Heat is generated as the air oxidizes the amine. If the heat is not dissipated quickly enough, it can ignite the sawdust.
- 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 : 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). Do not absorb in sawdust, paper, cloth or other combustible absorbents.

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 : Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. When mixed with epoxy resin 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 a dry, cool and well-ventilated place. Protect from moisture. Storage temperature : 40°F (4°C) - 90°F (32°C).

SECTION 8: Exposure controls/personal protection

Control parameters

| | | |
|--|------------------------------------|---|
| 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-, polymer with methyloxirane (26950-63-0) | | |
| Not applicable | | |
| Triethylenetetramine (112-24-3) | | |
| AIHA WEEL | WEEL TWA (ppm; mg/m ³) | 1 ppm ; 6 mg/m ³ ; Absorbed via skin |

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 suitable gloves resistant to chemical penetration.

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 : Clear

Colour : Amber

Odour : Ammonia like

Odour threshold : No data available

pH : 11.4

Melting point : No data available

Freezing point : No data available

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| | |
|---|--|
| Boiling point | : > 400 °F / 204 °C |
| Flash point | : 347 °F / 175 °C |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Flammability (solid, gas) | : Non flammable. |
| Vapour pressure | : < 1.33 hPa @ 21 °C / 70 °F |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : 1.01 (20 °C / 73 °C) |
| Solubility | : Soluble. |
| Partition coefficient n-octanol/water | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : 821.7 mm ² /s @ 22 °C (72 °F) |
| Viscosity, dynamic | : No data available |
| Explosive limits | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |

Other information

| | |
|---------------------|---------------------------|
| VOC content | : 1.47 g/l (305/CPI) |
| Bulk density | : 8.44 lb/gal (1.01 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 epoxy resin will cause irreversible polymerization with significant heat buildup and pressure. |
| Conditions to avoid | : Heat. Incompatible materials. |
| Incompatible materials | : Acids. Oxidizing materials. Halogenated compounds. |
| Hazardous decomposition products | : May include, and are not limited to: oxides of carbon. Nitrogen oxides. Amines. Ammonia. |

SECTION 11: Toxicological information

Information on toxicological effects

| 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-, polymer with methyloxirane (26950-63-0) | |
|---|--------------|
| LD50 oral rat | > 4190 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |

| Triethylenetetramine (112-24-3) | |
|---------------------------------|------------|
| LD50 oral rat | 1716 mg/kg |
| LD50 dermal rabbit | 1465 mg/kg |

| | |
|--|--|
| Acute toxicity (oral) | : Not classified. |
| Acute toxicity (dermal) | : Not classified. |
| Acute toxicity (inhalation) | : Not classified. |
| Skin corrosion/irritation | : Not classified. pH: 11.4 |
| Serious eye damage/irritation | : Causes serious eye damage. pH: 11.4 |
| Respiratory or skin sensitization | : May cause an allergic skin reaction. |
| Germ cell mutagenicity | : Not classified. |
| Carcinogenicity | : Not classified. |
| Reproductive toxicity | : Not classified. |
| STOT-single exposure | : Not classified. |
| STOT-repeated exposure | : Not classified. |

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Aspiration hazard : Not classified.

| CPI Hardener | |
|---|--|
| Viscosity, kinematic (calculated value) (40 °C) | 821.7 mm ² /s @ 22 °C (72 °F) |

Symptoms/effects after inhalation : May cause respiratory tract irritation.

Symptoms/effects after skin contact : May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/effects 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 : Harmful to aquatic life with long lasting effects.

| Triethylenetetramine (112-24-3) | |
|---------------------------------|---|
| LC50 fish 1 | 570 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [semi-static]) |
| EC50 Daphnia 1 | 31.1 mg/l (Exposure time: 48 h - Species: Daphnia magna) |
| LC50 fish 2 | 495 mg/l (Exposure time: 96 h - Species: Pimephales promelas) |

Persistence and degradability

| CPI Hardener | |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

Bioaccumulative potential

| CPI Hardener | |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |

| Triethylenetetramine (112-24-3) | |
|---------------------------------------|-------------------------------|
| BCF fish 1 | (no bioaccumulation expected) |
| Partition coefficient n-octanol/water | -1.4 |

Mobility in soil

No additional information available

Other adverse effects

Other information : Avoid release to the environment.

| Name | Product identifier | Ecotoxicity Classification Information |
|--|---------------------|--|
| 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-, polymer with methyloxirane | (CAS No) 26950-63-0 | Not classified |
| Triethylenetetramine | (CAS-No.) 112-24-3 | Chronic Aquatic Cat. 3 |

SECTION 13: Disposal considerations

Waste treatment methods

Product/Packaging disposal recommendations : 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

Not regulated

Marine pollutant : No

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Transport by air

In accordance with IATA

Not regulated

Marine pollutant : No

SECTION 15: Regulatory information

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.

1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-, polymer with methyloxirane (26950-63-0)

EPA TSCA Regulatory Flag

XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

International regulations

No additional information available

US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Triethylenetetramine (112-24-3)

U.S. - Massachusetts - Right To Know List

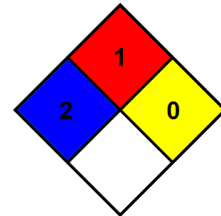
U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Date of issue : 08/24/2018
Revision date : 09/05/2019
Version : EH-CPI-2018b
Other information : None.

NFPA health hazard : 2
NFPA fire hazard : 1
NFPA reactivity : 0



Hazard Rating

Health : 2 Moderate Hazard
Flammability : 1 Slight Hazard
Physical : 0 Minimal Hazard

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