

GHS COMPLIANT SAFETY DATA SHEET

 TO COMPLY WITH *OSHA* HAZARD COMMUNICATION STANDARD 29 *CFR*.1910.1200
 & THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS





SECTION 1: IDENTIFICATION

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| PRODUCT NAME | Epoxy Hardener G-92 |
| MFR.'S CODE ID/SYNONYMS | Epoxy Hardener G-92 |
| CAS NUMBER | Proprietary |
| PRODUCT USE | Epoxy curing agent |
| RESTRICTIONS ON USE | For industrial use only |
| MANUFACTURER/SUPPLIER | Estron Chemical, Inc. |
| ADDRESS | 807 North Main Street, Calvert City, KY 42029 USA |
| GENERAL INFORMATION | (270) 395-4195 |
| EMERGENCY TELEPHONE | CHEMTREC (800) 424-9300 |

SECTION 2: HAZARDS IDENTIFICATION
Signal Word: *Danger*
GHS Classification

| Physical | Health | Environmental |
|-----------------------|--|--|
| OSHA Combustible Dust | Skin Corrosion/Irritation – Category 2 Serious Eye Damage/Eye Irritation - Category 1 Skin Sensitization - Category 1 Toxic to Reproduction - Category 1 Specific Target Organ Toxicity, Single Exposure (Central Nervous System) – Category 2 Specific Target Organ Toxicity, Single Exposure (Respiratory Tract) – Category 3 Specific Target Organ Toxicity, Repeated Exposure (Bladder, Kidneys, Liver) – Category 2 | Hazardous to the Aquatic Environment, Acute Hazard – Category 2 Hazardous to the Aquatic Environment, Chronic Hazard – Category 2 |

GHS Label

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| Symbols: Health Hazard  Corrosion  Exclamation Mark  Environment  | |
| Hazard Statements H315: Causes skin irritation H317: May cause an allergic skin reaction H318: Causes serious eye damage H335: May cause respiratory irritation H360: May damage fertility or the unborn child H371: May cause damage to organs (Central Nervous System) H373: May cause damage to organs (Bladder, Kidneys, Liver) through prolonged or repeated exposure H411: Toxic to aquatic life with long lasting effects May form combustible dust concentrations in air. | Precautionary Statements <i>Prevention</i> P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P260: Do not breathe dust/fume/gas/mist/vapours/spray. P264: Wash exposed skin 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/protective clothing/eye protection/face protection. <i>Response</i> P302+352: IF ON SKIN: Wash with soap and water. |

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| | <p>P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.</p> <p>P308+311: IF exposed or concerned: Call a POISON CENTER or doctor/physician.</p> <p>P310: Immediately call a POISON CENTER or doctor/physician.</p> <p>P312: Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P321: Specific treatment (see supplemental first aid instructions on this label)</p> <p>P333+313: If skin irritation or a rash occurs: Get medical advice/attention.</p> <p>P362+P364: Take off immediately all contaminated clothing and wash it before reuse.</p> <p>P391: Collect spillage.</p> <p><i>Storage</i></p> <p>P403+233: Store in a well ventilated place. Keep container tightly closed.</p> <p>P405: Store locked up.</p> <p><i>Disposal</i></p> <p>P501: Dispose of contents/container to an authorized hazardous waste handler.</p> |
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HAZARDS NOT OTHERWISE CLASSIFIED: None identified.

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

| HAZARDOUS INGREDIENTS | CAS # | % | CLASSIFICATION | H Codes |
|-----------------------|-------------|---------|--|--|
| Phenoxy Resin | TSCA Listed | 80 - 85 | OSHA Combustible Dust Skin Corrosion/Irritation – Category 2 Serious Eye Damage/Eye Irritation – Category 2A Skin Sensitization - Category 1 Acute Aquatic Toxicity – Category 2 Chronic Aquatic Toxicity - Category 2 | None H315 H319 H317 H401 H411 |
| Bisphenol A | 80-05-7 | 10 – 14 | Serious Eye Damage/Eye Irritation - Category 1 Skin Sensitization - Category 1 Toxic to Reproduction - Category 1 Specific Target Organ Toxicity, Single Exposure (Central Nervous System) – Category 2 Specific Target Organ Toxicity, Single Exposure (Respiratory Tract) – Category 3 Specific Target Organ Toxicity, Repeated Exposure (Bladder, Kidneys, Liver) – Category 2 Acute Aquatic Toxicity – Category 2 Chronic Aquatic Toxicity - Category 2 | H318 H317 H360 H371 H335 H373 H401 H411 |
| Heterocyclic Amine | Proprietary | 5 – 7 | OSHA Combustible Dust Skin Irritation – Category 2 Eye Irritation – Category 2A Specific Organ Toxicity, Single Exposure – Category 3 (Respiratory System) | None H315 H319 H335 |

(See Section 8 for Exposure Limits)

SECTION 4: FIRST-AID MEASURES

SYMPTOMS OF EXPOSURE

ACUTE Serious eye damage. Skin, eye or respiratory tract irritation. Difficulty breathing. Nausea or vomiting.

DELAYED Allergic skin reaction. Stinging, tearing, redness and swelling of the eyes. Rash, redness, itching or burning of the skin. Shortness of breath.

INHALATION May cause respiratory irritation. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

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| SKIN CONTACT | Causes skin irritation. May cause an allergic skin reaction. Wash thoroughly with soap and water. If skin irritation or a rash occurs: Get medical advice/attention. |
| EYE CONTACT | Causes serious eye damage. Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Immediately call a POISON CENTER or doctor/physician. |
| INGESTION | If ingested, seek medical attention. Never give anything by mouth to an unconscious person. Rinse mouth with water. |
| SPECIFIC TREATMENT | No other specific treatments are known or have been identified. |

SECTION 5: FIRE FIGHTING MEASURES

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| FLAMMABILITY CLASSIFICATION | OSHA Combustible Dust |
| FLAMMABLE LIMITS | LEL: No test data available UEL: No test data available |
| HAZARDOUS COMBUSTION PRODUCTS | Carbon monoxide and carbon dioxide. |
| EXTINGUISHING MEDIA | Dry Chemical, Water Fog, and CO ₂ |
| UNUSUAL FIRE AND EXPLOSION HAZARDS | Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. |
| SPECIAL FIRE FIGHTING PROCEDURES | None known. |
| SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS | As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full (Bunker) protective gear. |

SECTION 6: ACCIDENTAL RELEASE MEASURES

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| PERSONAL PRECAUTIONS | Prevent contact with skin, eyes and clothing. Ensure adequate ventilation. |
| PROTECTIVE EQUIPMENT | See Personal Protective Equipment in Section 8. |
| EMERGENCY PROCEDURES | Avoid unnecessary exposure to bystanders. |
| ENVIRONMENTAL PRECAUTIONS | Obey relevant local, state, provincial and federal laws and regulations. Do not allow the product to enter public drainage systems or open water courses. |
| METHODS AND MATERIALS FOR CLEANING UP | Avoid creating excessive dust while collecting. Sweep or scoop into a suitable container for disposal |

SECTION 7: HANDLING AND STORAGE

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| PRECAUTIONS FOR SAFE HANDLING | Prevent contact with skin and eyes. Avoid inhalation. If necessary, use local ventilation. Handle in accordance with good industrial hygiene and safety practice. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, <i>Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids</i> , for safe handling. |
| CONDITIONS FOR SAFE STORAGE | Store locked up. Keep container tightly closed in a dry and well ventilated place. The product shelf life is three years from date of manufacture in an unopened container stored at 20 °C. |

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| INGREDIENTS | CAS # | % | ACGIH TLV | OSHA PEL |
|--------------------|-------------|---------|-------------------------|-------------------------|
| Phenoxy Resin | TSCA Listed | 80 - 85 | <i>None established</i> | <i>None established</i> |
| Bisphenol A | 80-05-7 | 10 – 14 | 10mg/m ³ | 15 mg/m ³ |
| Heterocyclic Amine | Proprietary | 5 – 7 | 10 mg/m ³ | 10 mg/m ³ |

APPROPRIATE ENGINEERING CONTROLS Showers, eyewash stations and ventilation systems. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area. Use only appropriately classified electrical equipment and powered industrial trucks.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE Safety glasses, goggles or face shield.

SKIN Impervious protective gloves and clothing as appropriate to prevent skin contact for the exposure activity.

RESPIRATORY Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

HYGIENE MEASURES Handle in accordance with good industrial hygiene and safety practices. When using, do not eat, drink or smoke. Wash face, hands and any other exposed skin areas before breaks and at the end of work. Wash contaminated clothing before re-use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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| APPEARANCE | Clear to hazy Granules | ODOR | Mild, aromatic |
| ODOR THRESHOLD | No test data available | pH | No test data available |
| MELTING POINT | 90 - 100 °C | BOILING POINT/RANGE | >200 °C |
| FLASH POINT | Over 200 °F | EVAPORATION RATE | No test data available |
| FLAMMABILITY | OSHA Combustible Dust | | |
| FLAMMABLE LIMITS | LOWER No test data available | UPPER | No test data available |
| VAPOR PRESSURE | No test data available | VAPOR DENSITY | No test data available |
| RELATIVE DENSITY | 1.2 @ 20 °C | SOLUBILITY IN H ₂ O | None |
| PARTITION COEFFICIENT (n-octanol/water) | No test data available | AUTOIGNITION TEMPERATURE | No test data available |
| DECOMPOSITION TEMPERATURE | > 250 °C | VISCOSITY | Solid material |

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY This product does not pose a significant reactivity hazard when stored appropriately (see Section 7).

STABILITY Stable when maintained under recommended storage conditions.

CONDITIONS TO AVOID Dust accumulation in air or on surfaces, excessive heat, moisture and open flame.

INCOMPATIBLE PRODUCTS Strong oxidizing agents, acids, Amines, Bases.

HAZARDOUS DECOMPOSITION PRODUCTS Carbon dioxide and carbon monoxide.

POSSIBILITY OF HAZARDOUS REACTIONS Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

SYMPTOMS OF EXPOSURE

ACUTE Serious eye damage. Skin, eye or respiratory tract irritation. Difficulty breathing. Nausea or vomiting.

DELAYED Allergic skin reaction. Stinging, tearing, redness and swelling of the eyes. Rash, redness, itching or burning of the skin. Shortness of breath.

ACUTE TOXICITY

INHALATION May cause mechanical irritation if inhaled.

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| SKIN | Causes skin irritation. May cause an allergic skin reaction. | | |
| EYES | Causes serious eye damage. | | |
| INGESTION | May be harmful if swallowed. | | |
| INHALATION TOXICITY | LC ₅₀ Rat, 6 hours | Bisphenol A | 170 mg/m ³ |
| DERMAL TOXICITY | LD ₅₀ Rabbit | Bisphenol A | 3000 mg/kg |
| SKIN IRRITATION | Draize, Rabbit, 24 hours Primary Dermal Irritation Index | Bisphenol A No data available Heterocyclic Amine | Mild No data, causes skin irritation |
| EYE IRRITATION | Draize, Rabbit, 24 hours | Bisphenol A Heterocyclic Amine | Severe No data, causes eye irritation |
| ORAL TOXICITY | LD ₅₀ Rat | Bisphenol A | 5000 mg/kg |
| SENSITIZATION | Skin contact may cause an allergic skin reaction | | |
| CHRONIC EFFECTS | | | |
| CARCINOGENICITY | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP or OSHA. | | |
| MUTAGENIC EFFECTS | None known | | |
| REPRODUCTIVE TOXICITY | Human reproductive toxicant. Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. | | |
| TARGET ORGAN EFFECTS | No test data available | | |

SECTION 12: ECOLOGICAL INFORMATION

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| ECOTOXICITY | Toxic to aquatic life with long lasting effects. | | |
| TOXICITY TO FISH | LC ₅₀ Pimephales promelas, 96 hours | Polymer Bisphenol A | 1.75 mg/l 4.6 mg/l |
| TOXICITY TO DAPHNIA | EC ₅₀ Daphnia magna, 48 hours | Polymer Bisphenol A | 1.7 mg/l 1.8 mg/L |
| TOXICITY TO ALGAE | IC ₅₀ Pseudokirchneriella subcapitata, 96 hours | Bisphenol A | 2.73 mg/l |
| PERSISTANCE AND DEGRADABILITY | No data available | | |
| BIOACCUMULATIVE POTENTIAL | Indication of bioaccumulation with a low potential. | | |
| MOBILITY IN SOIL | No data available | | |
| OTHER ADVERSE EFFECTS | There is a potential for environmental hazard in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects. | | |

SECTION 13: DISPOSAL CONSIDERATIONS

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| WASTE DISPOSAL | Hazardous waste, dispose of in accordance with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material. |
| US EPA WASTE NUMBER & DESCRIPTION | No information available |

SECTION 14: TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

U.S. DOT

Not dangerous goods

Estron may choose to ship this product domestically as a hazardous material using one of the other codes shown in this section.

ICAO / IATA

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Bisphenol A epoxy resin)
Hazard Class: 9
ID Number: UN 3077
Packing Group: PG III
Label: Miscellaneous
Marine Pollutant: Marine Pollutant

IMDG

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Bisphenol A epoxy resin)
Hazard Class: 9
ID Number: UN 3077
Packing Group: PG III
Label: Miscellaneous
Marine Pollutant: Marine Pollutant

ADR/RID

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Bisphenol A epoxy resin)
Classification: 9
UN#: 3077
Packing Group: III

TDG

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Bisphenol A epoxy resin)
Hazard Class: 9
ID Number: UN 3077
Packing Group: PG III
Label: Miscellaneous
Marine Pollutant: Marine Pollutant

SECTION 15: REGULATORY INFORMATION

The components in this product are either listed or exempt from listing due to polymer exemption criteria for the following chemical listing inventories as indicated by an "X":

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|-------|--|---|
| AIIC | Australian Inventory of Industrial Chemicals | |
| DSL | Canadian Domestic Substances List | |
| ECL | Korean Existing Chemicals List | |
| ENCs | Japanese Existing and New Chemical Substances | X |
| IECSC | Inventory of Existing Chemical Substances in China | X |
| INSQ | National Inventory of Chemical Substances in Mexico | |
| NDSL | Canadian Non-Domestic Substances List | X |
| NZIoC | New Zealand Inventory of Chemicals | X |
| PICCS | Philippines Inventory of Chemicals and Chemical Substances | X |
| TCSI | Taiwan Chemical Substances List | X |
| TSCA | US Toxic Substances Control Act | X |
| VNECI | Vietnam National Existing Chemical Inventory | |

INTERNATIONAL REGULATIONS

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|----------------|--|
| EU REGULATION | (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorization, <i>Substances of Very High Concern</i> : This product contains Bisphenol A, an ECHA SVHC listed substance. |
| REACH | All components of this product are not REACH registered. Import limitations may apply. |
| EINECS | All of the components of this product are included on the European Inventory of Existing Commercial Chemical Substances. |
| C.D. 96/82/EC | Council Directive 96/82/EC, Annex I not mentioned by name. With regard to possibly appropriate decomposition products see Chapter 10. |
| WHMIS (Canada) | Class D-2B: Material causing other toxic effects (Toxic). |

FEDERAL REGULATIONS

SARA 313 This product does not contain any chemicals which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA Section 311/312 (40 CFR 370) Hazard Categories

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| Acute Health Hazard | Yes |
| Chronic Health Hazard | Yes |
| Fire Hazard | Yes |
| Pressure Hazard | No |
| Reactivity Hazard | No |

CERCLA This product, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional or state level pertaining to releases of this product.

CLEAN AIR ACT This product does not contain any substances regulated as hazardous air pollutants (HAPS under Section 112 of the Clean Air Act Amendments of 1990.

U.S. STATE REGULATIONS

RIGHT TO KNOW The Listing requirements of the Right to Know (RTK) legislation varies by state. All information for NJ, PA, MA and other states can be derived from the listing of hazardous and non-hazardous components in Sections 2 and 15 of this Safety Data Sheet.

CALIFORNIA PROPOSITION 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

SECTION 16: OTHER INFORMATION

DISCLAIMER This product is intended for industrial use only and should be used in accordance with the manufacturer's recommendations. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. This SDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

DATE OF REVISION January 12, 2024, *replaces the June 26, 2023 version.*

REASON FOR REVISION Changed the Shelf Life Statement in Section 7 pursuant to PCF24-002.

SDS PREPARED BY Glen Pearson

SDS APPROVED BY Robert Auerbach