

Safety Data Sheet

EPOX-5CL

**AEROCHEM**

1. Identification

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| Product identifier | EPOX-5CL |
| Product code | COEPOX-5CL |
| Other means of identification | 2 Component Epoxy Glue EPOX. TM/MD |
| Recommended use of the chemical and restrictions on use | For gluing a wide variety of materials. Not recommended for any other use not detailed on product data sheet or label. |
| Manufacturer | AEROCHEM Inc. 5977 Trans Canada Highway Pointe-Claire, QC H9R 1C1 Canada General Information: 1-888-592-5837 www.aerochem.ca info@aerochem.ca |
| Emergency phone number | INFOTRAC®: 1-800-535-5053 International call collect: 1-352-323-3500 24 hours/day, 7 days/week |

2. Hazard identification

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| Summary | Combustible and corrosive liquid. Keep away from heat and open flame. Avoid all contact with the skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Do not ingest. If medical advice is needed, have this SDS or label at hand. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. |
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WHMIS 2015/GHS/OSHA HCS 2012



Flammable liquids (Category 4)
Skin corrosion/irritation (Category 1B)
Serious eye damage/eye irritation (Category 1)
Respiratory sensitizer (Category 1)
Skin sensitizer (Category 1)

DANGER

H227: Combustible liquid

H314: Causes severe skin burns and eye damage

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

H317: May cause an allergic skin reaction

P210: Keep away from heat, sparks, open flames and other ignition sources. No smoking.

P260: Do not breathe mist, vapours and spray.

P264: Wash skin thoroughly after handling.

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

P280: Wear protective gloves, protective clothing and eye protection.

P284: In case of inadequate ventilation, wear respiratory protection.

P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water and soap or take a shower if necessary.

P363: Wash contaminated clothing before reuse.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P342+311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
 P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
 P310: Immediately call a POISON CENTER or a doctor.
 P370+378: In case of fire: Use ABC dry chemical to extinguish.
 P403: Store in a well-ventilated place.
 P405: Store locked up.
 P501: Dispose of contents and container to an approved waste disposal plant.

3. Composition/information on ingredients

| Common name | CAS | Weight % content |
|------------------------|----------------|------------------|
| Polymercaptan hardener | Proprietary 28 | 80 - 100 % |
| Tertiary amine | Proprietary 27 | 5 - 10 % |
| 2-Aminoethanol | 141-43-5 | 1 - 5 % |

Note: The manufacturer withholds the actual concentration range of the ingredients as a trade secret.

4. First-aid measures

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| Inhalation | Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention. |
| Skin contact | Wash skin with warm water and mild soap for at least 15 minutes. No attempt should be made to remove material from skin. Gently peel apart using a blunt instrument. Remove contaminated clothing and wash before reuse. If a problem develops or persists, seek medical attention. |
| Eye contact | IMMEDIATELY flush with plenty of water. Flush with water for at least 15 minutes. Remove contact lenses if easy to do. Hold eyelids apart to rinse properly. Eyelids may bond. Do not attempt to physically remove solids or gums from eye. Seek medical attention immediately. |
| Ingestion | DO NOT induce vomiting, unless recommended by medical personnel. Never give anything by mouth if victim is unconscious or convulsing. If victim is conscious wash out mouth with water and give 1-2 glasses of water to drink. Seek medical attention or contact a Poison Centre immediately. |
| Other | No information available. |
| Symptoms | May cause severe eye irritation or eye damage. May cause skin irritation and burns. May cause an allergic reaction of the skin. May cause an allergic respiratory reaction with symptoms similar to asthma such as wheezing and chest tightness. |
| Notes to the physician | Treat according to person's condition and specifics of exposure. If gastric lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. |

5. Fire-fighting measures

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| Suitable extinguishing media | Dry chemicals, water fog, chemical foam, carbon dioxide (CO ₂). Do not use a heavy water jet. |
| Specific hazards arising from the chemical | Combustible liquid and vapours. May be ignited by heat, sparks or flame. |
| Special protective equipment | Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals. |

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| Special protective actions for fire-fighters | Use water spray to cool fire-exposed containers. |
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6. Accidental release measures

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| Personal precautions, protective equipment and emergency procedures | Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet. |
| Environmental precautions | Prevent entry into sewers, closed areas and release to the environment. For a large spill, consult the Department of Environment or the relevant authorities. |
| Methods and materials for containment and cleaning up | Ventilate the area well. Eliminate all ignition sources. Use non-sparking and antistatic tools. Absorb with inert material (soil, sand, vermiculite) or wipe up or scrape up and place in an appropriate waste disposal container clearly identified. Finish cleaning the contaminated surface by rinsing with soapy water. |

7. Handling and storage

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| Precautions for safe handling | Keep away from heat, sparks and open flame. Use only in well ventilated area. Avoid all contact with the skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep containers tightly closed when not in use. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse. |
| Conditions for safe storage, including any incompatibilities | Storage and handling should follow the NFPA 30 Flammable and/or Combustible Liquids Code and the National Fire Code of Canada (NFCC). Store in the original container. Store in dry protected area free from humidity, freezing temperatures or extreme temperature changes. Store away from oxidizing materials and incompatible materials (see section 10). |
| Storage temperature | 15 to 40°C (59 to 104°F) |

8. Exposure controls/personal protection

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| Immediately Dangerous to Life or Health | 2-Aminoethanol: 30 ppm. | | |
| 2-Aminoethanol | STEL | 6 ppm | ACGIH , BC |
| | | 6 ppm | ON , RSST |
| | TWA (8h) | 3 ppm | ACGIH , BC |
| | | 3 ppm | ON , RSST |
| | | 15 mg/m ³ | |
| | | 7.5 mg/m ³ | |
| Appropriate engineering controls | Provide sufficient mechanical ventilation (general or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits. | | |
| Individual protection measures | | | |
| Eye | Wear safety glasses with side shields. If there is a risk of contact with eyes, wear chemical splash goggles. | | |
| Hands | Wear nitrile or neoprene gloves. Wear Nitrile gloves. Disposable nitrile gloves can also be used, but discard after single use. Before using, user should confirm impermeability. Discard gloves with tears, pinholes, or signs of wear. | | |
| Skin | | | |

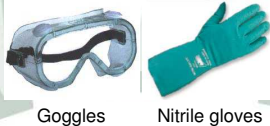
Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code.

Respiratory

Respiratory protection is not required for normal use. Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA. In case of insufficient ventilation or in enclosed area until maximum 10 times of exposure limit, wear half mask respirator with organic vapors cartridges.

Feet

No personal protection measure required.



TM/MD

9. Physical and chemical properties

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| Physical state | Liquid | Flammability | Combustible |
| Colour | Clear | Flammability limits | N/Av. |
| Odour | Mercaptan odor | Flash point | 78°C (172.4°F) Pensky-Martens closed cup |
| Odour threshold | N/Av. | Auto-ignition temperature | N/Av. |
| pH | N/Av. | Sensibility to electrostatic charges | N/Av. |
| Melting point | N/Av. | Sensibility to sparks and/or friction | N.Det. |
| Freezing point | N/Av. | Vapour density | N/Av. (Air = 1) |
| Boiling point | N/Av. | Relative density | 1.12 kg/L (Water = 1) |
| Solubility | Negligible in water | Partition coefficient n-octanol/water | N/Av. |
| Evaporation rate | N/Av. | Decomposition temperature | N/Av. |
| Vapour pressure | N/Av. | Viscosity | 13500 to 18500 cSt @ 25°C (77°F) |
| Percent Volatile | N/Av. | Molecular mass | N/Av. |

N/Av.: Not Available N/Av.: Not Applicable Und.: Undetermined N/E: Not Established

10. Stability and reactivity

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| Reactivity | No information available for this product. |
| Chemical stability | Stable under recommended storage conditions. |
| Possibility of hazardous reactions (including polymerizations) | Hazardous polymerization will not occur. |
| Conditions to avoid | Avoid heat, flame and sparks. Avoid contact with incompatible materials. Keep away from moisture. |

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| Incompatible materials | Strong oxidizing agents (e.g. chlorine, fluorine, nitric acid, perchloric acid, peroxides, nitrates, chlorates, chromates, permanganates and perchlorates), strong acids (e.g. hydrochloric acid, sulfuric acid, phosphoric acid), halogenated compounds. |
| Hazardous decomposition products | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

11. Toxicological information


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| Numerical measures of toxicity | 2-Aminoethanol Ingestion 1090 mg/kg Rat LD50 Inhalation >1.3 mg/l/4h Rat LC50 Skin 1015 mg/kg Rabbit LD50 |
| Likely routes of exposure | Skin, eyes, inhalation, ingestion. |
| Delayed, immediate and chronic effects | <p>Eye contact May cause severe eye irritation or eye damage. 2-Aminoethanol (CAS no 141-43-5) caused burns severe corneal injury (rabbits, OECD Guideline 405).</p> <p>Skin contact May cause skin irritation and burns. Contact with skin may aggravate an existing skin condition. 2-Aminoethanol (CAS no 141-43-5) caused burns of the skin (rabbits, OECD Guideline 404).</p> <p>Inhalation May cause an allergic respiratory reaction with symptoms similar to asthma such as wheezing and chest tightness. Mist exposure can cause irritation to nose, throat and lungs. Overexposure may cause burns of to nose, throat and respiratory tract.</p> <p>Ingestion May cause gastro-intestinal irritation and burns to mouth, throat and stomach.</p> <p>Respiratory or skin sensitization May cause an allergic reaction of the skin and respiratory tract. The Trade Secret Tertiary amine is considered to be a skin and respiratory sensitizer in the original SDS.</p> <p>IARC/NTP Classification No ingredients listed.</p> <p>Carcinogenicity Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.</p> <p>Mutagenicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.</p> <p>Reproductive toxicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause reproduction effects.</p> <p>Specific target organ toxicity - single exposure No target organ is listed.</p> <p>Specific target organ toxicity - repeated exposure No target organ is listed.</p> |
| Interactive effects | No information available for this product. |
| Other information | The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. The acute toxicity estimate (ATE) by inhalation (aerosol/mist) of the mixture was calculated to be greater than 5 mg/L/4h. These values are not classified according to WHMIS 2015 and OSHA HCS 2012. |

12. Ecological information


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| Ecological toxicity | <p>Fish - Cyprinus carpio - Carp (semi-static) LC50 150 mg/L; 96h (CAS no 141-43-5)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 65 mg/L; 48h (CAS no 141-43-5)</p> <p>Green Algae - Selenastrum capricornutum EC50 2.8 mg/L; 72h (CAS no 141-43-5) OECD 201</p> |
| Persistence | No information available for this product. |

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| Degradability | No information available for this product. |
| Bioaccumulative potential | No bioconcentration is expected because of the relatively high molecular weight of the ingredient CAS no 37286-64-9. |
| Mobility in soil | No information available for this product. |
| Other adverse effects | This chemical does not deplete the ozone layer. |

13. Disposal considerations

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| Container  | Important! Prevent waste generation. Use in full. DO NOT dispose residue in sewers, streams or drinking water supply. DO NOT pierce, cut, heat, or burn the container, even after use. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities. |
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14. Transport information

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| UN Number | UN 2735 |
| UN Proper Shipping Name | AMINES, LIQUID, CORROSIVE, N.O.S. (aliphatic amines) |
| Environmental hazards | This material does not contain marine pollutant. |
| Special precautions for user | Permit required for transportation with proper DANGER placards displayed on vehicle. Exemption available: LTD QTY according to TDG Canada - art. 1.17; Mode of transportation: rail, sea and road, applicable for Canadian domestic shipments. Quantitative limits: applicable for domestic containers (plastic bottles, glass or metal) containing =< 5 L each. |
| TDG - Transportation of Dangerous Goods (Canada) | |
| Transport hazard class(es) |  Class 8 |
| Packing group | III |
| Emergency response guidebook 2016 | <u>153</u> |
| IMO/IMDG - International Maritime Transport | |
| Classification | UN 2735. AMINES, LIQUID, CORROSIVE, N.O.S. (aliphatic amines). Class 8, PG III. Emergency schedules (EmS-No) F-A, S-B |
| IATA - International Air Transport Association | |
| Classification | UN 2735. AMINES, LIQUID, CORROSIVE, N.O.S. (aliphatic amines). Class 8, PG III. |
| These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it. | |

15. Regulatory information

CANADA

| Common name | CAS | CEPA | DSL | NDSL | NPRI |
|------------------------|----------------|------|-----|------|------|
| Polymercaptan hardener | Proprietary 28 | | X | | |
| Tertiary amine | Proprietary 27 | | X | | |
| 2-Aminoethanol | 141-43-5 | | X | | |

- CEPA: List of Toxic Substances Managed Under Canadian Environmental Protection Act
- DSL: Domestic Substances List Inventory
- NDSL: Non-Domestic Substances List Inventory
- NPRI: National Pollutant Release Inventory Substances

UNITED STATE OF AMERICA

| Common name | CAS | TSCA | CER CLA | EPCRA 313 | EPCRA 302/304 | CAA 112(b) HON | CAA 112(b) HAP | CAA 112(r) | CWA 311 | CWA Prio. |
|------------------------|----------------|------|------------|--------------|------------------|----------------------|----------------------|---------------|------------|--------------|
| Polymercaptan hardener | Proprietary 28 | X | | | | | | | | |
| Tertiary amine | Proprietary 27 | X | | | | | | | | |
| 2-Aminoethanol | 141-43-5 | X | | | | X | | | | |

- TSCA: Toxic Substance Control Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances
- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals
- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances
- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant
- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants
- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention
- CWA 311: Clean Water Act - List of Hazardous Substances
- CWA Priority: Clean Water Act - Priority Pollutant list

California Proposition 65

No ingredients listed.

Other regulations



16. Other information

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| Date (YYYY-MM-DD) | AEROCHEM Inc. 2020-03-03 |
| Version | 03 |
| Other information | <p>REFERENCES:</p> <ul style="list-style-type: none"> - Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, https://haz-map.com/ - Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), http://www.reptox.csst.qc.ca - The National Center for Biotechnology Information, National Institutes of Health (NIH), U.S. National Library of Medicine, https://pubchem.ncbi.nlm.nih.gov/ |

DATE OF FIRST VERSION OF SDS:
2017-01-18.
CHANGES MADE IN THE VERSION 02:
section 3.
DATE OF SECOND VERSION OF SDS:
2019-07-31.
CHANGES MADE IN THE VERSION 03:
section 1.

ACGIH: American Conference of Governmental Industrial Hygienists
AIHA: American Industrial Hygiene Association
HMIS: Hazardous Materials Identification System
NFPA: National Fire Protection Association
OSHA: Occupational Safety and Health Administration (USA)
NIOSH: National Institute for Occupational Safety and Health
NTP: National Toxicology Program
RSST: Règlement sur la santé et la sécurité du travail (Québec)
GHS: Globally Harmonized System
IARC: International Agency for Research on Cancer
IDLH: Immediately Dangerous to Life or Health
STEL: Short Term Exposure Limit (15 min)
TWA: Time Weighted Averages
WHMIS: Workplace Hazardous Materials Information System

TM/MD

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prevention

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