

SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, Uruguay (Decree 307/2009 as amended by Decree 346/2011), SDS standards for Brazil (ABNT NRB 14725-4: 2014), and European Directives

SECTION 1. PRODUCT IDENTIFICATION

1.1 TRADE NAME (AS LABELED):	CeramAlloy CL+AC Base
SYNONYMS:	N/A
CAS#:	Mixture
EC NUMBER:	Mixture
1.2 PRODUCT USE:	Fluid flow erosion and corrosion resistance
1.3 MANUFACTURER'S NAME:	ENECON Corporation
ADDRESS:	6 Platinum Court, Medford, New York 11763-2251
BUSINESS PHONE:	516-349-0022
1.4 EMERGENCY PHONE NUMBERS:	800-255-3924 (U.S.A.) 813-248-0585 (International)
DATE OF PRIOR REVISION:	June 6, 2022
DATE OF LATEST REVISION:	November 18, 2024

SECTION 2. HAZARD IDENTIFICATION

2.1 GHS LABELING AND CLASSIFICATION:

This product does meet the definition of a hazardous substance or preparation as defined by 29 CFR 1910. 1200 and regulation (EU) No. 2015/830 and regulation (EC) No. 1272/2008.

Component(s) Contributing to Classification(s)

Epoxy Phenol Novolac Resin, Bisphenol A Diglycidyl Ether Polymer

2.2 LABEL ELEMENTS

GHS Hazard Symbol(s)



Signal Word: **WARNING!**

GHS Hazard Classification(s):

Skin Irritant Category 2

Eye Irritant Category 2A

Skin Sensitizer Category 1

Aquatic Chronic Category 2

Hazard Statement(s):

H315: Causes skin irritation

H319: Causes serious eye irritation

H317: May cause an allergic skin reaction

H411: Toxic to the aquatic environment with long lasting effects

Prevention Statement(s):

P264: Wash hands thoroughly after handling.

P280: Wear protective gloves.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

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

P273: Avoid release to the environment.

Response Statement(s):

P302+P352: IF ON SKIN: Wash with plenty of water.

P321: Specific treatment (see section 4 of this SDS).

P332+P313: If skin irritation occurs: Get medical advice/attention.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists, Get medical advice/attention.

P391: Collect spillage.

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Storage Statement(s):

None

Disposal Statement(s):

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 OTHER HAZARDS:

None Applicable

SECTION 3. COMPOSITION AND INFORMATION ON INGREDIENTS

COMPONENTS:	WT %	CAS#	EINECS #	INDEX #	Hazard Classification
Bisphenol A Diglycidyl Ether Polymer	25 – 35%	25068-38-6	500-033-5	603-074-00-8	Skin Irritant 2, Eye Irritant 2, Skin Sensitizer 1, Aquatic Chronic 2
Epoxy Phenol Novolac Resin	1 - 8%	28064-14-4	608-164-0	N/A	Skin Irritant 2, Eye Irritant 2, Skin Sensitizer 1, Aquatic Chronic 2
Trimethylolpropane	.01 - 1%	77-99-6	201-074-9	N/A	Reproductive 2

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention.

SKIN CONTACT: Wash skin thoroughly after handling. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before re-use.

INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

INGESTION: If large quantities of this product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing skin, respiratory system or eye problems may be aggravated by prolonged contact.

4.2 SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

Exposure to skin and eyes may cause irritation and / or sensitization.

4.3 RECOMMENDATIONS TO PHYSICIANS:

Treat symptoms and eliminate overexposure.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 FIRE EXTINGUISHING MATERIALS:

Use fire extinguishing methods below:

Water Spray:	Yes	Carbon Dioxide:	Yes
Foam:	Yes	Dry Chemical:	Yes
Halon:	Yes	Other:	Any "C" Class

5.2 UNUSUAL FIRE AND EXPLOSION HAZARDS:

Combustion products may be toxic.

Explosion Sensitivity to Mechanical Impact: No

Explosion Sensitivity to Static Discharge: No

5.3 SPECIAL FIRE-FIGHTING PROCEDURES:

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

To prevent skin and eye contact under the foreseeable conditions of use, wear appropriate protective clothing and safety eyewear. When handling, do not eat, drink, or smoke. Wash thoroughly after handling. Handle in a well-ventilated work area.

6.2 ENVIRONMENTAL PRECAUTIONS:

If possible, prevent entry to sewers, storm drains, surface waters, and soils.

6.3 SPILL AND LEAK RESPONSE:

Personnel should be trained for spill response operations.

SECTION 7. HANDLING and STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing dusts generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

7.2 STORAGE AND HANDLING PRACTICES:

Product is non-flammable. Store in closed containers at a temperature between 41°F/5°C and 95°F/35°C & <50% relative humidity. Store away from strong acids or oxidizers.

7.3 SPECIFIC USES:

See Section 1.2.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 EXPOSURE PARAMETERS:

Chemical Name	CAS#	ACGIH TLV	OSHA TWA	EH40 TWA
Bisphenol A Diglycidyl Ether Polymer	25068-38-6	Not Listed	Not Listed	Not Listed
Epoxy Phenol Novolac Resin	28064-14-4	10 mg/m ³	15 mg/m ³	Not Listed

8.2 EXPOSURE CONTROLS:

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or chemical goggles where splashing is possible. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

HAND PROTECTION: Use chemical resistant gloves to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

BODY PROTECTION: Use body protect appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

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SECTION 9. PHYSICAL and CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE (Physical State) and COLOR: Colored viscous liquid with no odor.

ODOR: Odorless

ODOR THRESHOLD: Not Available

pH: Not Available

MELTING/FREEZING POINT: Not Available

BOILING POINT: >200°C

FLASH POINT: >250°C

EVAPORATION RATE (n-BuAc=1): Not Available

FLAMMABILITY (SOLID, GAS): Not Applicable

UPPER/LOWER FLAMMABILITY OR EXPLOSION LIMITS: Not Available

VAPOR PRESSURE (mm Hg @ 20°C (68°F): Not Available

VAPOR DENSITY: Not Available

RELATIVE DENSITY: Not Available

SPECIFIC GRAVITY: 1.78

SOLUBILITY IN WATER: Non-Soluble

WEIGHT PER GALLON: Not Available

PARTITION COEFFICIENT (n-octanol/water): Not Available

AUTO-IGNITION TEMPERATURE: Not Available

DECOMPOSITION TEMPERATURE: Not Available

VISCOSITY: Not Available

OXIDIZING PROPERTIES: Not an Oxidizer

EXPLOSIVE PROPERTIES: Not explosive.

9.2 OTHER INFORMATION:

PRODUCT VOC: 10 g/L

SECTION 10. STABILITY and REACTIVITY

10.1 REACTIVITY:

No data available.

10.2 STABILITY:

Stable under conditions of normal storage and use.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS:

Will not occur.

10.4 CONDITIONS TO AVOID:

Contact with incompatible materials.

10.5 MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:

Strong acids and strong oxidizing agents. Uncontrolled reactions with amines and bases.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:

When heated to decomposition this product may form formaldehyde, carbon dioxide, carbon monoxide and phenolic materials as products of incomplete combustion.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

TOXICITY DATA: Toxicity data is available for the following components:

CAS# 25068-38-6 Oral LD50

>5000 mg/kg

Rat

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Acute toxicity	Based on available data, the classification criteria are not met
Skin corrosion / irritation	Skin Irritation Category 2
Serious eye damage / irritation	Eye Irritation Category 2A
Respiratory or skin sensitization	Skin Sensitization Category 1
Germ cell mutagenicity	Based on available data, the classification criteria are not met
Carcinogenicity	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met

ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with the skin or eyes. The symptoms of overexposure are described in the following paragraphs.

ACUTE:

INHALATION: Inhalation of vapors from heated materials may cause irritation to respiratory tract.

CONTACT WITH SKIN: Prolonged or repeated contact may cause skin irritation or dermatitis.

EYE CONTACT: Direct contact may cause irritation with pain, burning and tearing.

INGESTION: Not a normal route of entry in normal application, however Ingestion of this product will cause gastrointestinal irritation.

CHRONIC: Prolonged or repeated exposure may cause dermatitis to the skin.

TARGET ORGANS: **Acute:** Skin, Eyes **Chronic:** Skin

SUSPECTED CANCER AGENT: One or more of the ingredients are found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC and therefore is considered to be, or suspected to be a cancer-causing agent by these agencies.

Titanium Dioxide CAS# 13463-67-7 IARC Group 2B (possible carcinogen to humans)

IRRITANCY OF PRODUCT: This product may be irritating to skin and eyes.

SENSITIZATION TO THE PRODUCT: This product is considered a skin sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: No specific information is available concerning the effects of this product and its components on the human reproductive system.

SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE: Data not sufficient for classification.

SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE: Data not sufficient for classification.

ASPIRATION HAZARD: None

SECTION 12. ECOLOGICAL INFORMATION

12.1 TOXICITY:

No specific data available on this product.

12.2 PERSISTENCE AND DEGRADABILITY:

No specific data available on this product.

12.3 BIOACCUMULATIVE POTENTIAL:

No specific data available on this product.

12.4 MOBILITY IN SOIL:

No specific data available on this product.

12.5 RESULTS OF PBT AND vPvB ASSESSMENT:

No specific data available on this product.

12.6 OTHER ADVERSE EFFECTS:

No specific data available on this product.

12.7 WATER ENDANGERMENT CLASS:

No data available. At present there are no ecotoxicological assessments for this product.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS:

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

13.2 EU WASTE CODE:

Not determined.

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SECTION 14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

14.1 U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

PROPER SHIPPING NAME: Environmentally Hazardous Substances, Liquid, n.o.s. (Diglycidyl Ether Bisphenol A Polymer)
HAZARD CLASS NUMBER and DESCRIPTION: Class 9, Environmentally Hazardous Substance
UN IDENTIFICATION NUMBER: UN3082
PACKING GROUP: III
DOT LABEL(S) REQUIRED: None
NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER: 171
RQ QUANTITY: None

MARINE POLLUTANT: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is considered as dangerous goods.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is considered as dangerous goods.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This product is considered by the United Nations Economic Commission for Europe to be dangerous goods.

SECTION 15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act as follows: None

U.S. SARA 311/312: None

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product.

U.S. CERCLA REPORTABLE QUANTITY (RQ): None

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory or are exempted from listing.

OTHER U.S. FEDERAL REGULATIONS: None known

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):

 **WARNING!** This product can expose you to chemicals such as Titanium Dioxide, Toluene, and Methanol which are known to the State of California to cause cancer and / or development hazard. For more information, go to WWW.P65Warning.ca.gov.

15.2 CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: Components are DSL Listed, NDSL Listed and/or are exempt from listing.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: This product is classified per 2015 WHMIS Hazardous Product Regulations.

15.3 EUROPEAN ECONOMIC COMMUNITY INFORMATION:

This product does meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

See Section 2 for Details

CHEMICAL SAFETY ASSESSMENT :

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

15.4 AUSTRALIAN INFORMATION FOR PRODUCT: Components of this product are listed on the International Chemical Inventory list.

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15.5 JAPANESE INFORMATION FOR PRODUCT:

JAPAN INDUSTRIAL SAFETY AND HEALTH LAW: This product has been classified per the Japan Industrial Safety and Health Law. See Section 2 for the GHS Classification.

15.6 INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac: Listed

Australian Inventory of Chemical Substances (AICS): Listed

Korean Existing Chemicals List (ECL): Not Listed

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed

Swiss Giftliste List of Toxic Substances: Not Listed

U.S. TSCA: Listed or Exempt

Mexican Inventory of chemical substances (NOM 010 STPS 2015): Not Listed

SECTION 16. OTHER INFORMATION

HMIS Rating (Scale 0-4)

Health hazard: 1

Flammability: 1

Physical Hazard: 0

NFPA Rating (Scale 0-4)

Health hazard: 1

Flammability: 1

Physical Hazard: 0

Abbreviations and acronyms

ACGIH	<i>American Conference of Governmental Industrial Hygienists</i>
CFR	<i>Code of Federal Regulations</i>
DOT	<i>Federal Department of Transportation</i>
GHS	<i>The Globally Harmonized System of Classification and Labelling of Chemicals</i>
HMIS	<i>Hazardous Material Identification System</i>
HCS	<i>Hazard Communication Standard</i>
IARC	<i>International Agency for Research on Cancer</i>
IATA	<i>The International Air Transport Association</i>
ICAO	<i>The International Civil Aviation Organization</i>
IMDG	<i>International Maritime Dangerous Goods</i>
IMO	<i>International Maritime Organization</i>
LD50/LC50	<i>Lethal Concentration/Dose, 50 percent</i>
NFPA	<i>National Fire Protection Association</i>
NIOSH	<i>National Institute for Occupational Safety and Health</i>
NTP	<i>National Toxicology Program</i>
OSHA	<i>Occupational Safety and Health</i>
PEL	<i>Permissible Exposure Limit</i>
SARA	<i>Superfund Amendments and Reauthorization Act</i>
TLV	<i>ACGIH Threshold Limit Value</i>
TWA	<i>Time-Weighted Average</i>

PREPARED BY: Chris Eigbrett – **(MSDS to GHS Compliance)**

DATE OF LATEST REVISION: November 18, 2024

Disclaimer: To the best of ENECON Corporation's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness is not guaranteed and no warranties of any type either express or implied are provided. The information contained herein relates only to this specific product.

END OF SDS SHEET

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Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, Uruguay (Decree 307/2009 as amended by Decree 346/2011), SDS standards for Brazil (ABNT NRB 14725-4: 2014), and European Directives

SECTION 1. PRODUCT IDENTIFICATION

1.1 TRADE NAME (AS LABELED):	CeramAlloy CL+AC Activator
<u>SYNONYMS:</u>	N/A
<u>CAS#:</u>	Mixture
<u>EC NUMBER:</u>	Mixture
1.2 PRODUCT USE:	Fluid flow erosion and corrosion resistance
1.3 MANUFACTURER'S NAME:	ENECON Corporation
<u>ADDRESS:</u>	6 Platinum Court, Medford, New York 11763-2251
<u>BUSINESS PHONE:</u>	516-349-0022
1.4 EMERGENCY PHONE NUMBERS:	800-255-3924 (U.S.A.) 813-248-0585 (International)
<u>DATE OF PRIOR REVISION:</u>	June 6, 2022
<u>DATE OF LATEST REVISION:</u>	November 18, 2024

SECTION 2. HAZARD IDENTIFICATION

2.1 GHS LABELING AND CLASSIFICATION:

This product does meet the definition of a hazardous substance or preparation as defined by 29 CFR 1910. 1200 and regulation (EU) No. 2015/830 and regulation (EC) No. 1272/2008.

Component(s) Contributing to Classification(s)

See Section 3

2.2 LABEL ELEMENTS

GHS Hazard Symbol(s)



Signal Word: **DANGER!**

GHS Hazard Classification(s):

Acute Toxicity Category 4 (Oral)
Acute Toxicity Category 4 (Inhalation)
Acute Toxicity Category 4 (Dermal)
Skin Corrosion Category 1
Eye Damage Category 1
Skin Sensitization Category 1
Reproductive Toxicity Category 2
Aquatic Chronic Category 2
Aquatic Acute Category 2

Hazard Statement(s):

H302: Harmful if swallowed
H332: Harmful if inhaled
H312: Harmful in contact with skin
H314: Causes severe skin burns and eye damage
H317: May cause an allergic skin reaction
H361: Suspected of damaging fertility or the unborn child
H401: Toxic to aquatic life
H411: Toxic to the aquatic environment with long lasting effects

Prevention Statement(s):

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P272: Contaminated work clothing should not be allowed out of the workplace.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P271: Use only outdoors or in a well-ventilated area.
P264: Wash thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.

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Response Statement(s):

P312: Call a POISON CENTER/doctor if you feel unwell.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P301+P312: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330: Rinse mouth.
P302+P352: IF ON SKIN: Wash with plenty of water
P321: Specific treatment (see section 4 of this SDS)
P362+P364: Take off contaminated clothing and wash it before reuse.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P363: Wash contaminated work clothing before reuse.
P310: Immediately call a POISON CENTER/doctor if you feel unwell.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P391: Collect spillage.
P308+P313: IF exposed or concerned: Get medical advice/attention.

Storage Statement(s):

P405: Store locked up.

Disposal Statement(s):

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 OTHER HAZARDS:

None Applicable

SECTION 3. COMPOSITION AND INFORMATION ON INGREDIENTS

COMPONENTS:	WT %	CAS#	EINECS #	INDEX #	Hazard Classification
Benzyl Alcohol	10-25%	100-51-6	202-859-9	603-057-00-5	Acute Toxicity 4 (Oral, Inhalation)
Isophoronediamine	10-25%	2855-13-2	220-666-8	612-067-00-9	Acute Toxicity 4 (Oral, Dermal), Skin Corrosive 1B, Skin Sensitizer 1, Aquatic Chronic 3
Amine Adduct	10-25%	Trade Secret	Trade Secret	N/A	Not Classified
Nonylphenol	5-20%	84852-15-3	284-325-5	601-053-00-8	Acute Toxicity 4 (Oral), Skin Corrosive 1B, Reproductive Toxicity 2, Aquatic Acute 1, Aquatic Chronic 1
Polyoxyalkylenamine	5-15%	9046-10-0	695-873-3	N/A	Skin Corrosive 1B
Aliphatic Amines	10-20%	Trade Secret	Trade Secret	N/A	Acute Toxicity 4 (Oral, Dermal), Skin Corrosive 1B, Skin Sensitizer 1, Reproductive Toxicity 2, STOT RE Cat 2
Aminoethyl Piperazine	1-10%	140-31-8	205-411-0	601-105-00-4	Acute Toxicity 4 (Oral, Dermal), Skin Corrosive 1B, Skin Sensitizer 1, Aquatic Chronic 3
Nonylphenol	1-10%	25154-52-3	246-672-0	601-053-00-8	Acute Toxicity 4 (Oral), Skin Corrosive 1B, Reproductive Toxicity 2, Aquatic Acute 1, Aquatic Chronic 1
Methylenebis(cyclohexanamine)	1-3%	1761-71-3	217-168-8	N/A	Acute Toxicity 4 (Oral), Skin Corrosive 1B, Skin Sensitizer 1, Aquatic Chronic 3
Dinonylphenol	<0.2%	1323-65-5	215-356-4	N/A	Skin Irritant 2, Eye Damage 1, Aquatic Chronic 2

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention.

SKIN CONTACT: Wash skin thoroughly after handling. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before re-use.

INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

INGESTION: If large quantities of this product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing skin, respiratory system or eye problems may be aggravated by prolonged contact.

4.2 SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

Harmful if swallowed, if inhaled, or in contact with skin. Causes skin burns and eye damage. May cause skin sensitization.

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4.3 RECOMMENDATIONS TO PHYSICIANS:

Treat symptoms and eliminate overexposure.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 FIRE EXTINGUISHING MATERIALS:

Use fire extinguishing methods below:

<u>Water Spray:</u>	Yes	<u>Carbon Dioxide:</u>	Yes
<u>Foam:</u>	Yes	<u>Dry Chemical:</u>	Yes
<u>Halon:</u>	Yes	<u>Other:</u>	Any "C" Class

5.2 UNUSUAL FIRE AND EXPLOSION HAZARDS:

Oxides of nitrogen and nitrogen containing organic compounds may be formed during combustion. Combustion products may be toxic.

Explosion Sensitivity to Mechanical Impact: No

Explosion Sensitivity to Static Discharge: No

5.3 SPECIAL FIRE-FIGHTING PROCEDURES:

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

To prevent skin and eye contact under the foreseeable conditions of use, wear appropriate protective clothing and safety eyewear. When handling, do not eat, drink, or smoke. Wash thoroughly after handling. Handle in a well-ventilated work area.

6.2 ENVIRONMENTAL PRECAUTIONS:

If possible, prevent entry to sewers, storm drains, surface waters, and soils.

6.3 SPILL AND LEAK RESPONSE:

Personnel should be trained for spill response operations.

SECTION 7. HANDLING and STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing dusts generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

7.2 STORAGE AND HANDLING PRACTICES:

Product is non-flammable. Store in closed containers at a temperature between 41°F/5°C and 95°F/35°C & <50% relative humidity. Store away from strong acids or oxidizers.

7.3 SPECIFIC USES:

See Section 1.2.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 EXPOSURE PARAMETERS:

Chemical Name	CAS#	ACGIH TLV	OSHA TWA	EH40 TWA
Benzyl Alcohol	100-51-6	Not Listed	Not Listed	Not Listed
Isophoronediamine	2855-13-2	Not Listed	Not Listed	Not Listed
Epoxy-Amine Adduct	Not Available	Not Listed	Not Listed	Not Listed
Nonylphenol	84852-15-3	Not Listed	Not Listed	Not Listed
Polyoxyalkylenamine	9046-10-0	Not Listed	Not Listed	Not Listed
Aminoethyl Piperazine	140-31-8	Not Listed	Not Listed	Not Listed
Nonylphenol	25154-52-3	Not Listed	Not Listed	Not Listed
Methylenebis(cyclohexanamine)	1761-71-3	Not Listed	Not Listed	Not Listed

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8.2 EXPOSURE CONTROLS:

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or chemical goggles where splashing is possible. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

HAND PROTECTION: Use chemical resistant gloves to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

BODY PROTECTION: Use body protect appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

SECTION 9. PHYSICAL and CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE (Physical State) and COLOR: Amber colored liquid with an ammonia odor.

ODOR: Ammonia

ODOR THRESHOLD: Not Available

pH: Not Available

MELTING/FREEZING POINT: Not Available

BOILING POINT: >200°C

FLASH POINT: >95°C

EVAPORATION RATE (n-BuAc=1): Not Available

FLAMMABILITY (SOLID, GAS): Not Applicable

UPPER/LOWER FLAMMABILITY OR EXPLOSION LIMITS: Not Available

VAPOR PRESSURE (mm Hg @ 20°C (68°F): Not Available

VAPOR DENSITY: Not Available

RELATIVE DENSITY: Not Available

SPECIFIC GRAVITY: 0.98

SOLUBILITY IN WATER: Non-Soluble

WEIGHT PER GALLON: Not Available

PARTITION COEFFICIENT (n-octanol/water): Not Available

AUTO-IGNITION TEMPERATURE: Not Available

DECOMPOSITION TEMPERATURE: Not Available

VISCOSITY: Not Available

OXIDIZING PROPERTIES: Not an Oxidizer

EXPLOSIVE PROPERTIES: Not explosive.

9.2 OTHER INFORMATION:

PRODUCT VOC: 10 g/L

SECTION 10. STABILITY and REACTIVITY

10.1 REACTIVITY:

No data available.

10.2 STABILITY:

Stable under conditions of normal storage and use.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS:

Will not occur.

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10.4 CONDITIONS TO AVOID:

Contact with incompatible materials.

10.5 MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:

Strong acids and strong oxidizing agents.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:

When heated to decomposition this product may form carbon dioxide, carbon monoxide, oxides of nitrogen and unidentified organic compounds.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

TOXICITY DATA: Toxicity data is available for the following components:

CAS# 9046-10-0 Oral LD50	400 - 2000 mg/kg	Rat
CAS# 25154-52-3 Oral LD50	1300 mg/kg	Rat
CAS# 140-31-8 Oral LD50	>1620 mg/kg	Rat

Acute toxicity	Acute Toxicity Category 4 (Oral, Dermal, Inhalation)
Skin corrosion / irritation	Skin Corrosion Category 1
Serious eye damage / irritation	Eye Damage Category 1
Respiratory or skin sensitization	Skin Sensitization Category 1
Germ cell mutagenicity	Based on available data, the classification criteria are not met
Carcinogenicity	Based on available data, the classification criteria are not met
Reproductive toxicity	Reproductive Toxicity Category 2
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met

ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with the skin or eyes. The symptoms of overexposure are described in the following paragraphs.

ACUTE:

INHALATION: Inhalation of vapors from heated materials may cause irritation to respiratory tract.

CONTACT WITH SKIN: May be toxic if absorbed through skin. Sensitization may occur. Corrosive to the skin.

EYE CONTACT: Corrosive to the eye and may cause severe damage. Vapors may be irritating to eyes.

INGESTION: Not a normal route of entry in normal application, however ingestion of this product will cause burns to mouth and throat.

CHRONIC: Prolonged or repeated exposure may cause dermatitis to the skin.

TARGET ORGANS: **Acute:** Skin, Eyes **Chronic:** Skin

SUSPECTED CANCER AGENT: None of the ingredients are found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC and therefore is not considered to be, nor suspected to be a cancer-causing agent by these agencies.

IRRITANCY OF PRODUCT: This product may be irritating to skin and eyes.

SENSITIZATION TO THE PRODUCT: This product is considered a skin sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: CAS# 84852-15-3 Suspected human reproductive hazard.

SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE: Data not sufficient for classification.

SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE: Data not sufficient for classification.

ASPIRATION HAZARD: None

SECTION 12. ECOLOGICAL INFORMATION

12.1 TOXICITY:

No specific data available on this product.

12.2 PERSISTENCE AND DEGRADABILITY:

No specific data available on this product.

12.3 BIOACCUMULATIVE POTENTIAL:

No specific data available on this product.

12.4 MOBILITY IN SOIL:

No specific data available on this product.

12.5 RESULTS OF PBT AND vPvB ASSESSMENT:

No specific data available on this product.

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12.6 OTHER ADVERSE EFFECTS:

No specific data available on this product.

12.7 WATER ENDANGERMENT CLASS:

No data available. At present there are no ecotoxicological assessments for this product.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS:

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

13.2 EU WASTE CODE:

Not determined.

SECTION 14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

14.1 U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

PROPER SHIPPING NAME:	Corrosive Liquid, n.o.s. (Contains Polyoxyalkleneamine, Isophoronediamine and Aminoethylpiperazine)
HAZARD CLASS NUMBER and DESCRIPTION:	Class 8, Corrosive
UN IDENTIFICATION NUMBER:	UN1760
PACKING GROUP:	III
DOT LABEL(S) REQUIRED:	None
NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER:	153
RQ QUANTITY:	None

MARINE POLLUTANT: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is considered as dangerous goods.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is considered as dangerous goods.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This product is considered by the United Nations Economic Commission for Europe to be dangerous goods.

SECTION 15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act as follows: None

U.S. SARA 311/312: None

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product.

U.S. CERCLA REPORTABLE QUANTITY (RQ): None

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory or are exempted from listing.

OTHER U.S. FEDERAL REGULATIONS: None known

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): None of the ingredients are on the California Proposition 65 lists.

15.2 CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: Components are DSL Listed, NDSL Listed and/or are exempt from listing.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: This product is classified per 2015 WHMIS Hazardous Product Regulations.

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15.3 EUROPEAN ECONOMIC COMMUNITY INFORMATION:

This product does meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

See Section 2 for Details

CHEMICAL SAFETY ASSESSMENT :

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

15.4 AUSTRALIAN INFORMATION FOR PRODUCT: Components of this product are listed on the International Chemical Inventory list.

15.5 JAPANESE INFORMATION FOR PRODUCT:

JAPAN INDUSTRIAL SAFETY AND HEALTH LAW: This product has been classified per the Japan Industrial Safety and Health Law. See Section 2 for the GHS Classification.

15.6 INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac: Listed

Australian Inventory of Chemical Substances (AICS): Listed

Korean Existing Chemicals List (ECL): Not Listed

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed

Swiss Giftliste List of Toxic Substances: Not Listed

U.S. TSCA: Listed or Exempt

Mexican Inventory of chemical substances (NOM 010 STPS 2015): Not Listed

SECTION 16. OTHER INFORMATION

HMIS Rating (Scale 0-4)	NFPA Rating (Scale 0-4)
Health hazard: 3	Health hazard: 3
Flammability: 1	Flammability: 1
Physical Hazard: 0	Physical Hazard: 0

Abbreviations and acronyms

ACGIH	<i>American Conference of Governmental Industrial Hygienists</i>
CFR	<i>Code of Federal Regulations</i>
DOT	<i>Federal Department of Transportation</i>
GHS	<i>The Globally Harmonized System of Classification and Labelling of Chemicals</i>
HMIS	<i>Hazardous Material Identification System</i>
HCS	<i>Hazard Communication Standard</i>
IARC	<i>International Agency for Research on Cancer</i>
IATA	<i>The International Air Transport Association</i>
ICAO	<i>The International Civil Aviation Organization</i>
IMDG	<i>International Maritime Dangerous Goods</i>
IMO	<i>International Maritime Organization</i>
LD50/LC50	<i>Lethal Concentration/Dose, 50 percent</i>
NFPA	<i>National Fire Protection Association</i>
NIOSH	<i>National Institute for Occupational Safety and Health</i>
NTP	<i>National Toxicology Program</i>
OSHA	<i>Occupational Safety and Health</i>
PEL	<i>Permissible Exposure Limit</i>
SARA	<i>Superfund Amendments and Reauthorization Act</i>
TLV	<i>ACGIH Threshold Limit Value</i>
TWA	<i>Time-Weighted Average</i>

PREPARED BY: Chris Eigbrett – **(MSDS to GHS Compliance)**
DATE OF LATEST REVISION: November 18, 2024

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END OF SDS SHEET