



# SAFETY DATA SHEET

## 1. Identification

**Material name:** EUACOXY INJECTION RESIN - 1 GAL PART B  
**Material:** 0511 1B

### Recommended use and restriction on use

**Recommended use:** Curative  
**Restrictions on use:** Not known.

### Manufacturer/Importer/Supplier/Distributor Information

EUCLID CHEMICAL COMPANY  
19218 REDWOOD ROAD  
CLEVELAND OH 44110  
US

**Contact person:** EH&S Department  
**Telephone:** 216-531-9222  
**Emergency telephone number:** 1-800-424-9300 (US); 1-613-996-6666 (Canada)

## 2. Hazard(s) identification

### Hazard Classification

#### Health Hazards

Acute toxicity (Oral)	Category 4
Acute toxicity (Dermal)	Category 4
Acute toxicity (Inhalation - dust and mist)	Category 4
Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Eye Irritation	Category 1
Skin sensitizer	Category 1
Toxic to reproduction	Category 2

#### Unknown toxicity - Health

Acute toxicity, oral	0.4 %
Acute toxicity, dermal	26.15 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	91.18 %

#### Environmental Hazards

Acute hazards to the aquatic environment	Category 2
--	------------

#### Unknown toxicity - Environment



Acute hazards to the aquatic environment	46.67 %
Chronic hazards to the aquatic environment	100 %

**Label Elements****Hazard Symbol:****Signal Word:** Danger**Hazard Statement:** Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
Suspected of damaging fertility or the unborn child.  
Toxic to aquatic life.  
Harmful if swallowed, in contact with skin or if inhaled.**Precautionary Statements****Prevention:** Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust or mists. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.**Response:** IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. If skin irritation or rash occurs: Get medical advice/attention. IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/ physician. Specific treatment (see on this label). Wash contaminated clothing before reuse.**Storage:** Store locked up.**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.**Hazard(s) not otherwise classified (HNOC):** None.



### 3. Composition/information on ingredients

#### Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Poly(oxypropylene) diamine	9046-10-0	30 - 60%
N-Aminoethylpiperazine	140-31-8	15 - 40%
4-Nonylphenol	84852-15-3	15 - 40%
m-Xylenediamine	1477-55-0	5 - 10%
Diethylenetriamine	111-40-0	3 - 7%
Tris(dimethylaminomethyl)phenol	90-72-2	3 - 7%
Isophoronediamine	2855-13-2	1 - 5%
Polyethylene glycol ether	9014-85-1	1 - 5%
Bisphenol A	80-05-7	1 - 5%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

#### Description of necessary first-aid measures

- Inhalation:** Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. Move to fresh air. If breathing is difficult, give oxygen.
- Skin Contact:** Call a physician or poison control center immediately. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
- Eye contact:** Remove contact lenses, if present and easy to do. Continue rinsing. Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.
- Ingestion:** Rinse mouth. Call a physician or poison control center immediately. Never give liquid to an unconscious person. Do not induce vomiting without advice from poison control center.
- Personal Protection for First-aid Responders:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

#### Most important symptoms/effects, acute and delayed

**Symptoms:** Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Extreme irritation of eyes and mucous membranes, including burning and tearing.

**Hazards:** No data available.

#### Indication of immediate medical attention and special treatment needed

**Treatment:** Symptoms may be delayed.



## 5. Fire-fighting measures

**General Fire Hazards:** No unusual fire or explosion hazards noted.

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** During fire, gases hazardous to health may be formed.

### Special protective equipment and precautions for fire-fighters

**Special fire-fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

**Accidental release measures:** In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

**Methods and material for containment and cleaning up:** Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

**Environmental Precautions:** Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

## 7. Handling and storage

### Handling

**Technical measures (e.g. Local and general ventilation):** Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.



**Safe handling advice:** Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Do not taste or swallow. Do not get in eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Do not get in eyes, on skin, on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Contact avoidance measures:** No data available.

**Hygiene measures:** Avoid contact with skin. Observe good industrial hygiene practices. Do not eat, drink or smoke when using the product. Wash hands after handling. Do not get in eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.

**Storage**

**Safe storage conditions:** Store locked up.

**Safe packaging materials:** No data available.

**8. Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
m-Xylenediamine	Ceiling	0.018 ppm	US. ACGIH Threshold Limit Values, as amended (02 2020)
Diethylenetriamine	TWA	1 ppm	US. ACGIH Threshold Limit Values, as amended (2008)

**Appropriate Engineering Controls** Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection:** Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.

**Skin Protection**

**Hand Protection:** Additional Information: Use suitable protective gloves if risk of skin contact.

**Skin and Body Protection:** Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.



**Hygiene measures:** Avoid contact with skin. Observe good industrial hygiene practices. Do not eat, drink or smoke when using the product. Wash hands after handling. Do not get in eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	Yellow
<b>Odor:</b>	Mild pungent
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	> 260 °C > 500 °F
<b>Flash Point:</b>	> 93 °C > 200 °F (Setaflash Closed Cup)
<b>Evaporation rate:</b>	Slower than Ether
<b>Flammability (solid, gas):</b>	No
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper:</b>	No data available.
<b>Explosive limit - lower:</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
<b>Relative density:</b>	0.976
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Practically Insoluble
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

## 10. Stability and reactivity

**Reactivity:** No data available.



<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	No data available.
<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	Avoid contact with acids.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Harmful in contact with skin. Causes severe skin burns. May cause an allergic skin reaction.
<b>Eye contact:</b>	Causes serious eye damage.
<b>Ingestion:</b>	Harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral Product:</b>	ATEmix: 1,782.08 mg/kg
<b>Dermal Product:</b>	ATEmix: 1,462.87 mg/kg
<b>Inhalation Product:</b>	ATEmix: 2.05 mg/l

<b>Repeated dose toxicity Product:</b>	No data available.
--	--------------------

**Skin Corrosion/Irritation****Product:** No data available.**Specified substance(s):**Poly(oxypropylene)  
diamine in vivo (Rabbit): Corrosive , 48 - 72 h

N-Aminoethylpiperazine in vivo (Rabbit): Severe damage to the belly , 24 h

4-Nonylphenol in vivo (Rabbit): Irritating , 1 - 8 d

m-Xylenediamine in vivo (Mouse): Corrosive , 4 h

Tris(dimethylaminomet  
hyl)phenol in vivo (Rabbit): Corrosive**Serious Eye Damage/Eye Irritation****Product:** No data available.**Specified substance(s):**Poly(oxypropylene)  
diamine Rabbit, 24 hrs: Corrosive

4-Nonylphenol Rabbit, 24 - 72 hrs: Corrosive

**Respiratory or Skin Sensitization****Product:** No data available.**Carcinogenicity****Product:** No data available.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:**

No carcinogenic components identified

**Germ Cell Mutagenicity****In vitro****Product:** No data available.**In vivo****Product:** No data available.**Reproductive toxicity****Product:** Suspected of damaging fertility or the unborn child.

**Specific Target Organ Toxicity - Single Exposure****Product:** No data available.**Specific Target Organ Toxicity - Repeated Exposure****Product:** No data available.**Aspiration Hazard****Product:** No data available.**Other effects:**

Constituents of this product may include crystalline silica which, if in inhalable form, may cause silicosis, a form of progressive pulmonary fibrosis. Inhalable crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline silica is also listed by the NTP as a known human carcinogen. Constituents may also contain asbestiform or non-asbestiform tremolite or other silicates as impurities, and above de minimis exposure to these impurities in inhalable form may be carcinogenic or cause other serious lung problems.

**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Specified substance(s):**

Poly(oxypropylene) diamine	LC 50 (Cyprinodon variegatus, 96 h): 772.14 mg/l Experimental result, Key study
N-Aminoethylpiperazine	LC 50 (Pimephales promelas, 96 h): 2,190 mg/l Experimental result, Key study
4-Nonylphenol	EC 50 (Pimephales promelas, 96 h): 96 µg/l Experimental result, Key study
m-Xylenediamine	LC 50 (Oryzias latipes, 96 h): 87.6 mg/l Experimental result, Key study
Diethylenetriamine	LC 50 (Poecilia reticulata, 96 h): 0.43 g/l Experimental result, Key study
Tris(dimethylaminomethyl)phenol	LC 50 (Cyprinus carpio, 96 h): 175 mg/l Experimental result, Weight of Evidence study
Isophoronediamine	LC 50 (Leuciscus idus, 96 h): 110 mg/l Experimental result, Key study
Polyethylene glycol ether	LC 50 (Pimephales promelas, 96 h): 36 mg/l Read-across based on grouping of substances (category approach), Key study



Bisphenol A LC 50 (Pimephales promelas, 96 h): 4.6 mg/l Experimental result, Key study

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

Poly(oxypropylene) diamine EC 50 (Daphnia magna, 48 h): 80 mg/l experimental result Experimental result, Key study

N-Aminoethylpiperazine EC 50 (Daphnia magna, 48 h): 58 mg/l experimental result Experimental result, Key study

4-Nonylphenol EC 50 (Daphnia magna, 48 h): 84.4 µg/l experimental result Experimental result, Key study

m-Xylenediamine EC 50 (Daphnia magna, 48 h): 15.2 mg/l experimental result Experimental result, Key study

Diethylenetriamine EC 50 (Daphnia magna, 48 h): 16 mg/l experimental result Experimental result, Key study

Isophoronediamine EC 50 (Water flea (Daphnia magna), 24 h): 31.9 - 45.8 mg/l Intoxication  
EC 50 (Daphnia magna, 48 h): 23 mg/l experimental result Experimental result, Key study

Polyethylene glycol ether EC 50 (Daphnia magna, 48 h): 88 mg/l read-across based on grouping of substances (category approach) Read-across based on grouping of substances (category approach), Key study

Bisphenol A EC 50 (Daphnia magna, 48 h): 10.2 mg/l experimental result Experimental result, Key study

**Chronic hazards to the aquatic environment:****Fish**

**Product:** No data available.

**Specified substance(s):**

4-Nonylphenol NOAEL (Oncorhynchus mykiss): 0.006 mg/l experimental result Experimental result, Key study

Diethylenetriamine NOAEL (Gasterosteus aculeatus): > 10 mg/l experimental result Experimental result, Key study

Bisphenol A NOAEL (Pimephales promelas): 640 µg/l experimental result Experimental result, Key study

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

4-Nonylphenol NOAEL (Daphnia magna): 0.024 mg/l experimental result Experimental result, Key study

m-Xylenediamine NOAEL (Daphnia magna): 4.7 mg/l experimental result Experimental result, Key study



Diethylenetriamine	NOAEL (Daphnia magna): 5.6 mg/l experimental result Experimental result, Key study
Isophoronediamine	NOAEL (Daphnia magna): 3 mg/l experimental result Experimental result, Key study
Bisphenol A	NOAEL (Daphnia magna): 1 mg/l experimental result Experimental result, Supporting study

**Toxicity to Aquatic Plants  
Product:**

No data available.

**Persistence and Degradability****Biodegradation****Product:**

No data available.

**Specified substance(s):**

4-Nonylphenol	48.2 % (35 d) Detected in water. Experimental result, Key study
m-Xylenediamine	49 % (28 d) Detected in water. Experimental result, Key study
Diethylenetriamine	87 % Detected in water. Experimental result, Key study
Tris(dimethylaminomethyl)phenol	4 % (28 d) Detected in water. Experimental result, Key study
Isophoronediamine	8 % (28 d) Detected in water. Experimental result, Key study
Polyethylene glycol ether	1 % Detected in water. Experimental result, Key study
Bisphenol A	89 % (28 d) Detected in water. Experimental result, Key study

**BOD/COD Ratio****Product:**

No data available.

**Bioaccumulative potential****Bioconcentration Factor (BCF)****Product:**

No data available.

**Specified substance(s):**

4-Nonylphenol	Pimephales promelas, Bioconcentration Factor (BCF): 740 Aquatic sediment Experimental result, Key study
Diethylenetriamine	Cyprinus carpio, Bioconcentration Factor (BCF): > 2.8 - 6.3 Aquatic sediment Experimental result, Key study
Bisphenol A	Cyprinus carpio, Bioconcentration Factor (BCF): 20 - 67 Aquatic sediment Experimental result, Key study

**Partition Coefficient n-octanol / water (log Kow)****Product:**

No data available.

**Specified substance(s):**

N-Aminoethylpiperazine	Log Kow: -1.57
Polyethylene glycol ether	Log Kow: > 1.8 - < 2.5 21 °C Yes Experimental result, Key study
Bisphenol A	Log Kow: 3.32 Log Kow: 3.32

**Mobility in soil:** No data available.

**Other adverse effects:** Toxic to aquatic organisms.

**13. Disposal considerations**

**Disposal methods:** Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Contaminated Packaging:** No data available.

**14. Transport information****TDG:**

UN1760, CORROSIVE LIQUID, N.O.S. (N-Aminoethylpiperazine, Polyoxypropylene Diamine), 8, PG II

**CFR / DOT:**

UN1760, Corrosive liquids, n.o.s. (N-Aminoethylpiperazine, Polyoxypropylene Diamine), 8, PG II

**IMDG:**

UN1760, CORROSIVE LIQUID, N.O.S. (N-Aminoethylpiperazine, Polyoxypropylene Diamine, Nonylphenol), 8, PG II, MARINE POLLUTANT

**Further Information:**

The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

**15. Regulatory information****US Federal Regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)****Chemical Identity**

4-Nonylphenol

**Reportable quantity**

De minimis concentration: TSCA 5(a)(2)% One-Time Export Notification only.

**US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)**

None present or none present in regulated quantities.



**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended**

None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

Chemical Identity                      Reportable quantity

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

Immediate (Acute) Health Hazards  
Delayed (Chronic) Health Hazard

**US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances**

**US. EPCRA (SARA Title III Section 313 Toxic Chemical Release Inventory (TRI) Reporting**

Chemical Identity                      % by weight  
Bisphenol A                                      1.0%

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**



**WARNING**

Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**International regulations**

**Montreal protocol**

Not applicable

**Stockholm convention**

Not applicable

**Rotterdam convention**

Not applicable

**Kyoto protocol**

Not applicable

**VOC:** When appropriately mixed with the other part, product has a VOC less water and exempt solvent of:  
34 g/l



---

Regulatory VOC (less water and  
exempt solvent) : 356 g/l  
VOC Method 310 : 18.01 %

**Inventory Status:**

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	One or more components in this product are not listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.



**16. Other information, including date of preparation or last revision**

**Revision Date:** 11/11/2022

**Version #:** 2.1

**Further Information:** No data available.

**Disclaimer:** For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.