



SAFETY DATA SHEET

1. Identification

Material name: EUCEM CGA 10 ICARE 24
Material: RP 2199-16

Recommended use and restriction on use

Recommended use: Additive
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

Unknown toxicity - Health

| | |
|--|---------|
| Acute toxicity, oral | 26.56 % |
| Acute toxicity, dermal | 26.08 % |
| Acute toxicity, inhalation, vapor | 53.67 % |
| Acute toxicity, inhalation, dust or mist | 33.08 % |

Environmental Hazards

| | |
|--|------------|
| Acute hazards to the aquatic environment | Category 2 |
| Chronic hazards to the aquatic environment | Category 3 |

Unknown toxicity - Environment

| | |
|--|---------|
| Acute hazards to the aquatic environment | 70.54 % |
| Chronic hazards to the aquatic environment | 70.54 % |

Label Elements

**Hazard Symbol:****Signal Word:** Warning**Hazard Statement:** Harmful if swallowed.
Toxic to aquatic life.
Harmful to aquatic life with long lasting effects.**Precautionary Statements****Prevention:** Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment.**Response:** IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.**Disposal:** Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.**Hazard(s) not otherwise classified (HNOC):** None.**3. Composition/information on ingredients****Mixtures**

| Chemical Identity | CAS number | Content in percent (%)* |
|-------------------------------|------------|-------------------------|
| Diethylene glycol | 111-46-6 | 10 - <20% |
| Glycerine | 56-81-5 | 1 - <5% |
| Ethylene glycol | 107-21-1 | 1 - <5% |
| 1-Dodecanamine, N,N-dimethyl- | 112-18-5 | 0.25 - <1% |
| Ethanolamine | 141-43-5 | 0.1 - <1% |

* 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:** Move to fresh air.**Skin Contact:** Wash skin thoroughly with soap and water. If skin irritation occurs:
Get medical advice/attention.



Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Ingestion: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

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: May cause skin and eye irritation.

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: No data available.

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:

Do not taste or swallow. Wash hands thoroughly after handling. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Contact avoidance measures:

No data available.

Hygiene measures:

Do not eat, drink or smoke when using the product. Wash hands after handling. Observe good industrial hygiene practices.

Storage**Safe storage conditions:**

Store away from incompatible materials. Store in original tightly closed container.

Safe packaging materials:

No data available.

8. Exposure controls/personal protection**Control Parameters****Occupational Exposure Limits**

| Chemical Identity | Type | Exposure Limit Values | Source |
|---------------------------------------|------|--|---|
| Glycerine - Total dust. | PEL | 15 mg/m ³ | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| Glycerine - Respirable fraction. | PEL | 5 mg/m ³ | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |
| Glycerine - Total dust. | TWA | 50 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016) |
| | TWA | 15 mg/m ³ | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016) |
| Glycerine - Respirable fraction. | TWA | 15 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016) |
| | TWA | 5 mg/m ³ | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016) |
| Ethylene glycol - Aerosol, inhalable. | STEL | 10 mg/m ³ | US. ACGIH Threshold Limit Values, as amended (03 2017) |
| Ethylene glycol - Vapor fraction | TWA | 25 ppm | US. ACGIH Threshold Limit Values, as amended (03 2017) |
| | STEL | 50 ppm | US. ACGIH Threshold Limit Values, as |



| | | | |
|--------------|------|---------------|---|
| | | | amended (03 2017) |
| Ethanolamine | TWA | 3 ppm | US. ACGIH Threshold Limit Values, as amended (2011) |
| | STEL | 6 ppm | US. ACGIH Threshold Limit Values, as amended (2011) |
| | PEL | 3 ppm 6 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006) |

| Chemical name | Type | Exposure Limit Values | Source |
|---------------------------------------|---------|-----------------------|---|
| Glycerine - Respirable mist. | TWA | 3 mg/m3 | Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended (07 2007) |
| Glycerine - Mist. | TWA | 10 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017) |
| Glycerine - Respirable fraction. | TWA | 3 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020) |
| Glycerine - Inhalable fraction. | TWA | 10 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020) |
| Glycerine - Total mist | TWA | 10 mg/m3 | Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended (06 2021) |
| Ethylene glycol - Vapor. | CEILING | 50 ppm | Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended (07 2007) |
| Ethylene glycol - Vapor and mist. | CEILING | 50 ppm 127 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017) |
| Ethylene glycol - Aerosol, inhalable. | STEL | 10 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020) |
| Ethylene glycol - Aerosol total | CEILING | 100 mg/m3 | Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended (06 2022) |
| | TWA | 10 mg/m3 | Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended (06 2022) |
| | STEL | 20 mg/m3 | Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended (06 2022) |
| Ethanolamine | TWA | 3 ppm | Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended (07 2007) |
| | STEL | 6 ppm | Canada. British Columbia OELs: Table of Exposure Limits for Chemical Biological Substances (Workers Compensation Board); as amended (07 2007) |
| Ethanolamine | STEL | 6 ppm | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010) |
| | TWA | 3 ppm | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010) |



| | | | | |
|--------------|------|-------|-----------|---|
| Ethanolamine | STEL | 6 ppm | 15 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017) |
| | TWA | 3 ppm | 7.5 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017) |

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 goggles/face shield.

Skin Protection

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

Skin and Body Protection: No data available.

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

Hygiene measures: Do not eat, drink or smoke when using the product. Wash hands after handling. Observe good industrial hygiene practices.

9. Physical and chemical properties**Appearance**

Physical state: liquid

Form: liquid

Color: Amber

Odor: Characteristic

Odor threshold: No data available.

pH: 8

Melting point/freezing point: No data available.

Initial boiling point and boiling range: No data available.

Flash Point: Not applicable

Evaporation rate: Slower than Ether

Flammability (solid, gas): No

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%): No data available.

Flammability limit - lower (%): No data available.

Explosive limit - upper: No data available.

Explosive limit - lower: No data available.

Vapor pressure: No data available.

Vapor density: No data available.

Relative density: 1.08

Solubility(ies)



| | |
|---|--------------------|
| Solubility in water: | Soluble |
| Solubility (other): | No data available. |
| Partition coefficient (n-octanol/water): | No data available. |
| Auto-ignition temperature: | No data available. |
| Decomposition temperature: | No data available. |
| Viscosity: | No data available. |

10. Stability and reactivity

| | |
|--|---|
| Reactivity: | No data available. |
| Chemical Stability: | Material is stable under normal conditions. |
| Possibility of hazardous reactions: | No data available. |
| Conditions to avoid: | Avoid heat or contamination. |
| Incompatible Materials: | Strong acids. Strong bases. |
| Hazardous Decomposition Products: | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. |

11. Toxicological information

Information on likely routes of exposure

| | |
|----------------------|---|
| Inhalation: | In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes. |
| Skin Contact: | Causes mild skin irritation. |
| Eye contact: | Eye contact is possible and should be avoided. |
| Ingestion: | Harmful if swallowed. |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|----------------------|--------------------|
| Inhalation: | No data available. |
| Skin Contact: | No data available. |
| Eye contact: | No data available. |
| Ingestion: | No data available. |

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

| | |
|----------------------|------------------------|
| Oral Product: | ATEmix: 1,995.26 mg/kg |
|----------------------|------------------------|

Dermal



Product: ATEmix: 20,138.81 mg/kg

Inhalation Product: ATEmix: 17.76 mg/l

Repeated dose toxicity Product: No data available.

Skin Corrosion/Irritation Product: No data available.

Specified substance(s):

| | |
|-------------------------------|---|
| Diethylene glycol | in vivo (Human): Slightly irritating |
| Ethylene glycol | in vivo (Rabbit): Not irritant , 8 d |
| 1-Dodecanamine, N,N-dimethyl- | in vivo (Rabbit): Corrosive , 30 - 60 min |
| Ethanolamine | in vivo (Rabbit): Corrosive , 24 - 72 h |

Serious Eye Damage/Eye Irritation Product: No data available.

Specified substance(s):

| | |
|-------------------------------|-------------------------------|
| Diethylene glycol | Rabbit, 24 h: Not irritant |
| Ethylene glycol | Rabbit, 24 h: Not irritant |
| 1-Dodecanamine, N,N-dimethyl- | Rabbit, 24 - 48 h: Irritating |

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 1910.1001-1053), as amended:
No carcinogenic components identified

**Germ Cell Mutagenicity**

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity
Product: No data available.

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: No data available.

12. Ecological information**Ecotoxicity:****Acute hazards to the aquatic environment:****Fish**

Product: No data available.

Specified substance(s):

| | |
|-------------------------------|---|
| Diethylene glycol | LC 50 (Pimephales promelas, 96 h): 75,200 mg/l Experimental result, Key study |
| Glycerine | LC 50 (Oncorhynchus mykiss, 96 h): 54,000 mg/l Experimental result, Key study |
| Ethylene glycol | LC 50 (Pimephales promelas, 96 h): 72,860 mg/l Experimental result, Key study |
| 1-Dodecanamine, N,N-dimethyl- | LC 50 (Danio rerio, 96 h): 0.71 - 1 mg/l Experimental result, Key study |
| Ethanolamine | LC 50 (Cyprinus carpio, 96 h): 349 mg/l Experimental result, Key study |

**Aquatic Invertebrates**

| | |
|--------------------------------|---|
| Product: | No data available. |
| Specified substance(s): | |
| Glycerine | LC 50 (Daphnia magna, 48 h): 1,955 mg/l experimental result Experimental result, Supporting study |
| Ethylene glycol | EC 100 (Daphnia magna, 48 h): > 100 mg/l experimental result Experimental result, Key study |
| 1-Dodecanamine, N,N-dimethyl- | EC 50 (Daphnia magna, 48 h): 0.083 mg/l experimental result Experimental result, Key study |
| Ethanolamine | EC 50 (Daphnia magna, 48 h): 65 mg/l experimental result Experimental result, Key study |

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

| | |
|--------------------------------|--|
| Product: | No data available. |
| Specified substance(s): | |
| Ethylene glycol | NOAEL (Pimephales promelas): 15,380 mg/l experimental result Experimental result, Weight of Evidence study |

Aquatic Invertebrates

| | |
|--------------------------------|--|
| Product: | No data available. |
| Specified substance(s): | |
| Diethylene glycol | NOAEL (Daphnia magna): > 15,000 mg/l read-across based on grouping of substances (category approach) Read-across based on grouping of substances (category approach), Weight of Evidence study |
| 1-Dodecanamine, N,N-dimethyl- | NOAEL (Daphnia magna): 0.036 mg/l experimental result Experimental result, Key study |
| Ethanolamine | NOAEL (Daphnia magna): 0.85 mg/l experimental result Experimental result, Key study |

Toxicity to Aquatic Plants

| | |
|-----------------|--------------------|
| Product: | No data available. |
|-----------------|--------------------|

Persistence and Degradability**Biodegradation**

| | |
|--------------------------------|---|
| Product: | No data available. |
| Specified substance(s): | |
| Glycerine | 94 % Detected in water. Experimental result, Key study |
| Ethylene glycol | 90 - 100 % (10 d) Detected in water. Experimental result, Key study |
| 1-Dodecanamine, N,N-dimethyl- | 72 % Detected in water. Experimental result, Key study |



Ethanolamine > 90 % (21 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):

Diethylene glycol Leuciscus idus, Bioconcentration Factor (BCF): 100 Aquatic sediment
Experimental result, Key study

Ethanolamine Bioconcentration Factor (BCF): 9.2 Aquatic sediment QSAR, Key study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Diethylene glycol Log Kow: -1.47

Glycerine Log Kow: -1.76

Ethylene glycol Log Kow: -1.36

Ethanolamine Log Kow: -1.31

Mobility in soil: No data available.

Other adverse effects: Toxic to aquatic organisms. Harmful to aquatic life with long lasting effects.

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:**

Not Regulated

CFR / DOT:

Not Regulated



IMDG:

Not Regulated

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)

None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Proposed 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 1910.1001-1053), as amended

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--------------------------|----------------------------|
| Ethylene glycol | 5000 lbs. |

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate (Acute) Health Hazards
Acute toxicity (any route or exposure)

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

Not Regulated.

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

| <u>Chemical Identity</u> | <u>% by weight</u> |
|--------------------------|--------------------|
| Ethylene glycol | 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

Cancer and Reproductive Harm - www.P65Warnings.ca.gov

International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

VOC:

Regulatory VOC (less water and exempt solvent) : 394 g/l

VOC Method 310 : 18.41 %

**Inventory Status:**

| | |
|--|--|
| Australia Industrial Chem. Act (AIIIC): | 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. |
| Canada NDSL Inventory: | One or more components in this product are not listed on or exempt from the Inventory. |
| Ontario Inventory: | 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. |
| Japan (ENCS) List: | 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. |
| Korea Existing Chemicals Inv. (KECI): | One or more components in this product are not listed on or exempt from the Inventory. |
| Mexico INSQ: | 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. |
| Philippines PICCS: | One or more components in this product are not listed on or exempt from the Inventory. |
| Taiwan Chemical Substance Inventory: | One or more components in this |



product are not listed on or exempt from the Inventory.

Switzerland New Subs
Notified/Registered:

One or more components in this product are not listed on or exempt from the Inventory.

Thailand DIW Existing Chemical Inv.
List:

One or more components in this product are not listed on or exempt from the Inventory.

Vietnam National Chemical Inventory:

One or more components in this product are not listed on or exempt from the Inventory.

EC Inventory:

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.

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

Revision Date: 01/11/2024

Version #: 1.2

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.