

Dynalene EG (heat transfer fluid)

1. Product and Company Identification

1.1 Product identifiers

Product Name: Dynalene EG (includes all concentrations/dyes)
Producer: Dynalene, Inc.
Product Number: Not available.
CAS-No.: Not available.

1.2 Identified uses of the product and uses advised against

Identified Uses: Heat transfer fluid.

1.3 Details of the chemical supplier

Company: Dynalene, Inc.
5250 West Coplay Road
Whitehall, PA 18052
USA
Telephone: +1 610-262-9686
Fax: +1 610-262-7437

1.4 Emergency telephone number

Within the U.S.: +1 800-424-9300 (CHEMTREC)
Outside the U.S.: +1 703-527-3887 (CHEMTREC)

2. Hazards Identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word: Warning

Hazard statement(s)
H302: Harmful if swallowed.

Precautionary statement(s)
P264: Wash skin thoroughly after handling.
P270: Do not eat, drink, or smoke when using this product.
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330: Rinse mouth.
P501: Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None.

3. Composition/Information on Ingredients

3.1 Product mixture

Synonyms: Mixture.

Molecular Wt: Not available.
CAS-No.: Not available.

Ingredients	Classification	CAS-No.	Concentration
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Ethylene glycol	Acute Tox. 4; H302	107-21-1	15-100%
Inhibitor solution (trade secret)	Not hazardous.	n/a	<12%

4. First Aid Measures

4.1 Description of first aid measures

Skin exposure

Wash off with soap and water. Consult a physician.

Eye exposure

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion

Never give anything by mouth to an unconscious person. Rinse mouth with water and consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

5. Fire Fighting Measures

5.1 Suitable (and unsuitable) extinguishing media

Suitable: Water spray, carbon dioxide, foam, dry chemical, any ABC class.

5.2 Specific hazards arising from the chemical

When involved in a fire, this material may decompose and produce irritating vapors and toxic gases (e.g., carbon oxides).

5.3 Advice for firefighters

Incipient fire responders should wear eye protection. Structural fire fighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move fire-exposed containers if it can be done without risk to firefighters. If possible, prevent run-off water from entering storm drains, bodies of water, or other environmental areas.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment, and emergency procedures

Proper protective equipment should be used. In case of an uncontrolled release, clear the affected area, protect people, and respond with trained personnel. Avoid breathing vapors. Ensure adequate ventilation.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Small spill: Cover with absorbent material (floor absorbent, vermiculite, etc.). Soak up spill and place material into a drum.

Large spill: Wear protective equipment. Stop spill at source, dike the area surrounding the spill to prevent further exposure. Prevent material from entering sewer system. If necessary, absorbents such as vermiculite, clay floor absorbent may be used on spill and shoveled into drums.

6.4 References to other sections

For disposal see section 13.

7. Handling and Storage

7.1 General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the day.

7.2 Precautions for safe handling

Use in a well-ventilated location. Open drums and other containers of this product slowly, on a stable surface. Drums and other containers of this product should be properly labeled. Keep containers tightly closed.

7.3 Conditions for safe storage, including any incompatibilities

Move drums of this product carefully, with the appropriate drum-handling equipment. Store drums and other containers in cool, dry locations, away from direct sunlight, or sources of intense heat. Storage areas should be made of fire-resistant materials. Keep containers away from incompatible chemicals.

8. Exposure Controls/Personal Protection

8.1 Control and exposure limits recommended by the chemical manufacturer

USA OSHA, Table Z-1, Limits for Air Contaminants – 1910.1000: 50 ppm, 125 mg/m³ (ethylene glycol, C value)

USA ACGIH, Threshold Limit Values (TLV): 100 mg/m³ (ethylene glycol, C value)

Eye and upper respiratory tract irritation, not classifiable as a human carcinogen.

8.2 Appropriate engineering controls

Use with adequate ventilation to minimize exposure to mists or sprays of this product. Prudent practice is to ensure eyewash/safety shower stations are available near areas where this product is used. Monitoring of oxygen level is recommended.

8.3 Individual protection measures, such as personal protective equipment

All personnel handling the product should use a personal protective equipment level D.

Respiratory protection

None needed for normal circumstances of use. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134, or applicable State regulations. Use supplied air respiration protection if oxygen levels are below 19.5% or are unknown.

Eye protection

Wear safety glasses with side shields.

Hand protection

Wear butyl rubber, natural rubber, neoprene, Nitrile rubber, or other suitable gloves for routine industrial use.

Body protection

Wear impervious clothing.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

- | | |
|---------------------------|--|
| a) Appearance | Clear, liquid. |
| b) Odor | Odorless. |
| c) Odor threshold | No data available. |
| d) pH | 7.0 - 11.0 |
| e) Melting/freezing point | -16.7°C (2°F), for >99% concentration. |

f) Boiling point	>100°C (>212°F)
g) Flash point	None for concentrations <80%.
h) Evaporation rate	1
i) Flammability (solid, gas)	No data available.
j) Upper/lower flammability or explosive limits	Upper (UEL): 15.3% (V) Lower (LEL): 3.2% (V)
k) Vapor pressure	0.08 mmHg at 25°C (77°F)
l) Vapor density	2.14 (Air = 1.0)
m) Relative density	1.0 – 1.2 g/cm ³ at 25°C (77°F)
n) Water solubility	Soluble.
o) Partition coefficient: n-octanol/water	logP = -1.36
p) Auto-ignition temp	No data available.
q) Decomposition temp	No data available.
r) Viscosity	>1.0 cP at 25°C (77°F)

10. Stability and Reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under ordinary conditions of use and storage.

10.3 Possibility of hazardous reactions

Stable under ordinary conditions of use and storage.

10.4 Conditions to avoid

Contact with incompatible chemicals and exposure to extremely high temperatures.

10.5 Incompatible materials

Strong oxidizers, strong acids, acid chlorides, acid anhydrides, chloroformates, or strong reducing agents.

10.6 Hazardous decomposition products

Mainly carbon dioxide and carbon monoxide.

11. Toxicological Information

11.1 Information on toxicological effects

For ethylene glycol

LD50 Oral – rat: 4,700 mg/kg

LD50 Dermal – rabbit: 10,626 mg/kg

Skin corrosion/irritation

No data available.

Serious eye damage/eye irritation

Eyes – rabbit. Result: mild eye irritation, 24h.

Irritancy of product

This product may cause irritation to contaminated tissues.

Reproductive toxicity

This product is not reported to produce mutagenic, embryotoxic, teratogenic, or reproductive effects in humans.

Suspected cancer agent

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH, NTP, or OSHA.

Irritancy of product

This product may cause irritation to contaminated tissues.

Reproductive toxicity

This product is not reported to produce mutagenic, embryotoxic, teratogenic, or reproductive effects in humans.

Medical conditions aggravated by exposure

It is anticipated that mainly skin, eye, and respiratory disorders may be aggravated after over-exposure.

Additional information

RTECS: KW2975000

When ingested early symptoms mimic alcohol inebriation and are followed by nausea, vomiting, abdominal pain, weakness, muscle tenderness, respiratory failure, convulsions, cardiovascular collapse, pulmonary edema, hypocalcemic tetany, and severe metabolic acidosis. Without treatment, death may occur in 8 to 24 hours. Victims who survive the initial toxicity period usually develop renal failure along with brain and liver damage., Exposure to and/or consumption of alcohol may increase toxic effects.

Central nervous system - Irregularities - Based on Human Evidence

12. Ecological Information

12.1 Ecotoxicity (aquatic and terrestrial)

This product may be harmful to aquatic life if large quantities are released into bodies of water.

Ethylene glycol

Toxicity to fish:

NOEC – Pimephales promelas (fathead minnow) – 39,140 mg/L, 96h.

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LC50 – Oncorhynchus mykiss (rainbow trout) – 18,500 mg/L, 96h.

LC50 – Leuciscus idus (golden orfe) - >10,000 mg/L, 48h.

Toxicity to invertebrates:

NOEC – Daphnia – 24,000 mg/L, 48h.

EC50 – Daphnia magna (water flea) – 74,000 mg/L, 24h.

LC50 – Daphnia magna (water flea) – 41,000 mg/L, 48h.

12.2 Persistence and degradability

Ratio BOD/ThBOD: 0.78%

12.3 Bioaccumulation potential

Bioaccumulation, other fish – 61d, 50 mg/L

Bioconcentration factor (BCF): 0.60

12.4 Mobility in soil

No data available.

12.5 Other adverse effects

None.

13. Disposal Considerations

13.1 Waste treatment methods

Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

14. Transport Information

UN Number: 3082
UN Proper Shipping Name: Environmentally hazardous substance, liquid, N.O.S. (ethylene glycol)
Class: 9
Packing Group: III
Poison Inhalation Hazard: No

IMDG

Not dangerous goods.

IATA

Not dangerous goods.

15. Regulatory Information

SARA Reporting Requirements

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components: Ethylene glycol, CAS-No.: 107-21-1; Revision date: 2007-07-01.
SARA 311/312 Hazards: Acute health hazard, chronic health hazard.

16. Other Information

Revision Date

August 19th, 2014

This SDS was prepared by Dynalene, Inc.

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Dynalene Heat Transfer Fluids assumes no responsibility for injury to the vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, Dynalene Heat Transfer Fluids assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.