Dynalene TEG (heat transfer fluid)

1. Product and Company Identification

1.1 Product identifiers

Product Name:	Dynalene TEG (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)
Specific target organ, single exposure – inhalation, respiratory tract (Category 3), H335

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word	Warning
Hazard statement(s)	
H335	May cause respiratory irritation.
Precautionary statement(s)	
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.

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.	EC-No.	Concentration
Triethylene glycol	STOSE 3; H335	112-27-6	203-953-2	15-100%
Inhibitor solution (trade secret)	Not hazardous	n/a	n/a	<12%

4. First Aid Measures

4.1 Description of first aid measures

Skin exposure
If this product contaminates the skin, immediately begin decontamination with running water. Remove exposed or contaminated clothing, taking care not to contaminate eyes. The minimum recommended flushing time is 15 minutes. Contaminated individual must seek immediate medical attention.

Eye exposure
If this product enters the eyes, open victim's eyes while under gentle running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Contaminated individual must seek immediate medical attention.

Inhalation
If vapors or mists of this product are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers.

Ingestion
Hazards from swallowing this product are not expected to be serious. If symptoms develop, seek medical attention.

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
This product must be substantially pre-heated before ignition can occur. 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. Decontaminate fire-response equipment with soap and water solution if necessary.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment, and emergency procedures
Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of an uncontrolled release, clear the affected area, protect people, and respond with trained personnel.

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: Personnel involved with large releases should wear protective equipment. Stop spill at source, dike the area surrounding the spill to prevent further exposure. Prevent material from entering sewer system. If pump is available, pump spilled material into 55-gallon drums for proper disposal. 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

All employees who handle this material should be trained to handle it safely. 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. Empty drums and containers may contain residual amounts of this product, therefore, empty containers should be handled with care.

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

OSHA Permissible Exposure Limit (PEL):	None established.
OSHA Short Term Exposure Limit (STEL):	None established.
ACGIH Threshold Limit Value (TLV):	None established.
ACGIH Short Term Exposure Limit (STEL):	None established.

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. Decontaminate the area thoroughly. If necessary, decontaminate spill response equipment with soap and water solution

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	-7°C (19°F), for 100% concentration.
f) Boiling point	125°C (257°F), for 100% concentration.
g) Flash point	166°C (331°F), closed cup, for 100% concentration.
h) Evaporation rate	Not available.
i) Flammability (solid, gas)	Not available.
j) Upper/lower flammability or explosive limits	Upper (UEL): 9.2% (V) Lower (LEL): 0.9% (V)
k) Vapor pressure	<1.0 mmHg at 25°C (77°F)
l) Vapor density	5.18 (Air = 1.0)
m) Relative density	1.0 – 1.2 g/cm^3 at 25°C (77°F)
n) Water solubility	Completely miscible.
o) Partition coefficient: n-octanol/water	No data available.
p) Auto-ignition temp	347°C (657°F)
q) Decomposition temp	Not available.
r) Viscosity	9.6 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

Acute toxicity
For Triethylene glycol

LD50 Oral – rat:	17,000 mg/kg
Inhalation:	Respiratory disorder.
LD50 Dermal – rabbit:	>22,500 mg/kg

Skin corrosion/irritation
For Triethylene glycol
Skin – human.
Result: Mild skin irritation.
(Patch test 24 hrs.)
Skin – rabbit.
Result: Mild skin irritation, 24 hrs.

Serious eye damage/eye irritation
For Triethylene glycol
Eyes – rabbit.
Result: Mild eye irritation.

Suspected cancer agent
This product's ingredients are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, CAL/OSHA, and therefore is not considered to be, nor suspected to be cancer causing agents by these agencies.

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 and eye disorders may be aggravated after over-exposure.

Recommendations to physicians
Treat symptoms and eliminate over-exposure.

Biological exposure indices
Currently, there are no Biological Indices (BEIs) associated with the components of this product.

12. Ecological Information

12.1 Ecotoxicity (aquatic and terrestrial)

For Triethylene glycol

Toxicity to fish:	LC50 – Leuciscis idus (Golden orfe) – 100 mg/L, 96 hrs.
Toxicity to invertebrates:	EC50 – Daphnia magna (Water flea) – 46,500 mg/L, 48 hrs.
Toxicity to algae:	No data available.

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

12.2 Persistence and degradability

For Triethylene glycol

Biodegradability:	>70% - readily biodegradable.

12.3 Bioaccumulative potential

No bioaccumulation is to be expected (log Pow<=4).

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:	Not applicable.
UN Proper Shipping Name:	Not applicable.
Packing Group:	Not applicable.

IMDG
Not dangerous goods.

IATA
Not dangerous goods..

15. Regulatory Information

SARA 302	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.	
SARA 313	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.	
SARA 311/312	No SARA Hazards	
Massachusetts Right To Know	No components are subject to the Massachusetts Right to Know Act.	
Pennsylvania Right To Know	2,2'-(Ethylenedioxy)diethanol	CAS-No. 112-27-6
New Jersey Right To Know	2,2'-(Ethylenedioxy)diethanol	CAS-No. 112-27-6
TSCA	The following components are on the Toxic Substance Control Act Inventory: 2,2'-(Ethylenedioxy)diethanol CAS-No. 112-27-6	
EINECS	All of the components of this product is on the European Inventory of Existing Commercial Chemical Substances.	
California Prop 65	This product does not contain ingredients that cause cancer or reproductive harm known to the state of California.	
Canada DSL	The following components of this product are on the Canadian Domestic Substance List: 2,2'-(Ethylenedioxy)diethanol CAS-No. 112-27-6	

16. Other Information

Revision Date
11 June 2019

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.