Safety Data Sheet
Triethylene Glycol

Revision Date: 12/20/2022

1. Identification

1.1. Product identifier

Product Identity	Triethylene Glycol
Alternate Names	Triethylene Glycol

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name	Silver Fern Chemical, Inc. 2226 Queen Anne Avenue North, Suite C Seattle, WA 98109 USA
Emergency	
24 hour Emergency Telephone No.	Emergency telephone number Infotrac: 1-800-535-5053; Outside USA & Canada +1-352-323-3500
Customer Service: Silver Fern Chemical, Inc.	Customer Service: 1-866-282-3384 / info@silverfernchemical.com Website - www.silverfernchemical.com

2. Hazard(s) identification

2.1. Classification of the substance or mixture

No applicable GHS categories.

2.2. Label elements

No applicable GHS categories.

[Prevention]

No GHS prevention statements

[Response]

No GHS response statements

[Storage]

No GHS storage statements

[Disposal]

No GHS disposal statements

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Triethylene glycol (teg) **CAS Number: 0000112-27-6**	**>= 98.0%**	**Not Classified**	**----**
Diethylene glycol **CAS Number: 0000111-46-6**	**<=1**	**Acute Tox. 4;H302**	**----**

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
*PBT/vPvB - PBT-substance or vPvB-substance.
The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Rinse with plenty of clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview No specific symptom data available.
Treat symptomatically. Check section 2.2 (GHS Label Elements) for further details.

Section 5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO_2, powder, water spray.
Unsuitable extinguishing media: Do not use; water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

5.3. Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

ERG Guide No. ----

Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

6.3. Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8. Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations.

Section 7. Handling and storage

7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

Check section 2.2 (GHS Label Elements) for further details. - [Prevention]

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials: No available information

Check section 2.2 (GHS Label Elements) for further details. - [Storage]

7.3. Specific end use(s)

No available information

Section 8. Exposure controls / personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000111-46-6	Diethylene glycol	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
0000112-27-6	Triethylene glycol (teg)	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit

8.2. Exposure controls

Respiratory	If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.
Eyes	Protective safety glasses recommended
Skin	Avoid skin contact. Protective gloves recommended.
Engineering Controls	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Check section 2.2 (GHS Label Elements) for further details.

Section 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Clear, Colorless Liquid
Odor	Odorless to Mild
Odor threshold	No available information
pH	No available information
Melting point / freezing point	-7 °C (19 °F)
Initial boiling point and boiling range	286.5 °C (547.7 °F)
Flash Point	closed cup 176 °C (349 °F) ASTM D 93
Evaporation rate (Ether = 1)	<0.01
Flammability (solid, gas)	No available information
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** 0.9 % vol Calculated. **Upper Explosive Limit:** 9.2 % vol Estimated.
Vapor pressure (Pa)	0.000655 hPa at 24.7 °C (76.5 °F)
Vapor Density	
Relative Density	No available information
Solubility in Water	Completely Soluble
Partition coefficient n-octanol/water (Log Kow)	Octanol/Water Partition Coefficient
Auto-ignition temperature	347 °C (657 °F)
Decomposition temperature	No available information
Viscosity (cSt)	Kinematic Viscocity - 47.8 mm2/s at 20 °C (68 °F)
Oxidising properties	No
Explosive properties	Not Explosive
Molecular Weight	150.18 g/mol
Molecular Formula	HO(C2H4O)3H
Relative Density	1.13 at 15 °C (59 °F) Literature

9.2. Other information

No other relevant information.

Section 10. Stability and reactivity

10.1. Reactivity
Hazardous Polymerization will not occur.
10.2. Chemical stability
Stable under normal circumstances.
10.3. Possibility of hazardous reactions
No available information
10.4. Conditions to avoid
Avoid high temperatures and contact with incompatible material
10.5. Incompatible materials
No available information
10.6. Hazardous decomposition products
No hazardous decomposition data available.

Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Triethylene glycol (teg) - (112-27-6)	No data available	No data available	No data available	No data available	No data available
Diethylene glycol - (111-46-6)	No data available	11,890.00, Rabbit - Category: NA	No data available	No data available	No data available

Carcinogen Data

CAS No.	Ingredient	Source	Value
0000111-46-6	Diethylene glycol	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit
0000112-27-6	Triethylene glycol (teg)	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable

Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Section 12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
Triethylene glycol (teg) - (112-27-6)	Not Available	Not Available	Not Available
Diethylene glycol - (111-46-6)	32,000.00, Gambusia affinis	8,400.00, Daphnia magna	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

No available information

12.4. Mobility in soil

No available information

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No available information

Section 13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

Section 14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Regulated	Not Regulated	Not Regulated

14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	**DOT Hazard Class:** Not Applicable **Sub Class:** Not Applicable	**IMDG:** Not Applicable **Sub Class:** Not Applicable	**Air Class:** Not Applicable **Sub Class:** Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable

14.5. Environmental hazards

Marine Pollutant: No;

14.6. Special precautions for user

No available information

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

Acetaldehyde

Formaldehyde

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:

WARNING: This product can expose you to chemicals including [Acetaldehyde, Formaldehyde], which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

New Jersey RTK Substances (>1%) :
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Pennsylvania RTK Substances (>1%):

Diethylene glycol

Triethylene glycol (teg)

OSHA Process Safety Management Standard Highly Hazardous Chemicals, Toxics and Reactives:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA List of Regulated Substances under the Risk Management Plan (RMP) Program:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) under the Minimum Risk Exemption:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA List II or Essential Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA - Exempt Chemical Mixtures - List 1 and 2:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US DHS Chemical Facility Anti-Terrorism Standards (CFATS):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Section 16. Other information

Revision Date 12/20/2022

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

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