

HSE Corn Glycol (heat transfer fluid)

1. Product and Company Identification

1.1 Product identifiers

Product Name: HSE Corn Glycol (includes all concentrations/dyes)
 Producer: HotSpot Energy, 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: HotSpot Energy, Inc.
 4021 Holland Blvd
 Chesapeake, VA 23323
 USA
 Telephone: +1 801-916-2067

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

Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

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
Propylene glycol	Not hazardous.	57-55-6	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, Halon, 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 Workplace Environmental Exposure Levels (WEEL): 10 mg/m³ (propylene glycol, TWA value)

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	-51.1°C (-60°F), for 95% concentration.
f) Boiling point	>100°C (>212°F)
g) Flash point	None for concentrations <80%.
h) Evaporation rate	Not available.
i) Flammability (solid, gas)	Not available.
j) Upper/lower flammability or explosive limits	Upper (UEL): 12.5% (V) Lower (LEL): 2.6% (V)
k) Vapor pressure	0.08 mmHg at 25°C (77°F)
l) Vapor density	2.62 (Air = 1.0)
m) Relative density	1.0 – 1.1 g/cm ³ at 25°C (77°F)
n) Water solubility	Soluble.
o) Partition coefficient: n-octanol/water	logP = -1.41, -0.30
p) Auto-ignition temp	371.1°C (700°F)
q) Decomposition temp	Not 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 propylene glycol

LD50 oral, rat: 20,000 mg/kg

LD50 dermal, rabbit: 20,800 mg/kg

LD50 intramuscular, rat: 14 g/kg

LD50 intravenous, dog: 26 g/kg

LD50 intraperitoneal, rat: 6,600 mg/kg

LD50 subcutaneous, rat: 22,500 mg/kg

LD50 intravenous, rat: 6,423 mg/kg

LD50 intraperitoneal, mouse: 9,718 mg/kg; Remarks: Lungs, Thorax; Respiration: chronic pulmonary edema; Kidney, Ureter, Bladder: changes in both tubules and glomeruli; Blood: changes in spleen.

LD50 subcutaneous, mouse: 17,370 mg/kg; Remarks: Behavioral: change in motor activity (specific assay); Behavioral: muscle contraction or spasticity; Cyanosis.

LD50 intravenous, mouse: 6,630 mg/kg

LD50 intravenous, rabbit: 6,500 mg/kg

Skin corrosion/irritation

Skin – human. Result: mild skin irritation, 7d.

Serious eye damage/eye irritation

Eyes – rabbit. Result: mild eye irritation.

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, OSHA, or IARC.

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.

12. Ecological Information

12.1 Ecotoxicity (aquatic and terrestrial)

Propylene glycol

Toxicity to fish: Mortality NOEC – Pimephales promelas (fathead minnow) – 52,930 mg/L, 96h.

Toxicity to invertebrates: Morality NOEC – Daphnia – 13,020 mg/L, 48h.

EC50 – Daphnia magna (water flea) – 13,020 mg/L, 48h.

12.2 Persistence and degradability

The components of this product will degrade over time into organic compounds.

12.3 Mobility in soil

No data available.

12.4 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 Reporting Requirements

The components of this product are not subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act.

16. Other Information

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. HotSpot Energy, Inc. 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, HotSpot Energy, Inc. 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.