



Safety Data Sheet

Product Name: Tec-Frost Heat Transfer Fluid Concentrate

SDS No.: 10622216100CONC

Issue Date: 06/01/2018

Version No.: 1.0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Tec-Frost Heat transfer fluid concentrate

Company Name & Address: TEC-FROST 1320 1st Street, Rock Island, IL 61201

For More Information Call: 309-788-5631 (Monday-Friday 8:00-4:30)

In Case of Emergency Call: (800) 424-9300 Chemtrec (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: No known OSHA hazards

Target Organs: None

Signal Words: None

Pictograms: None

GHS Classification:

Not a hazardous substance according to GHS.

GHS Label Elements, including precautionary statements:

Hazard Statements:

None

Precautionary Statements:

None

Potential Health Effects

Eyes	May cause irritation
Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Ingestion	May be harmful if ingested.

NFPA Ratings

Health	1
Flammability	1
Reactivity	0
Specific hazard	N/A

HMIS Ratings

Health	1
Fire	1
Reactivity	0
Personal	C

0 =minimal 1= slight 2=moderate 3= serious 4= severe

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Volume %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Propylene glycol, 1,2-Propanediol	≥96	57-55-6	200-388-0	C ₃ H ₈ O ₂	76.10 g/mol
Dipotassium Phosphate, Food Grade	<5	7758-11-4	N/A	K ₂ HPO ₄	174.2 g/mol

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes and seek medical attention if necessary.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.
Skin	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

5. FIREFIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Use appropriate media on adjacent fire. Cool unopened containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (carbon oxides) under fire conditions. (See also Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to a federal/national or local reporting requirements
Methods and materials for containment and cleaning up	Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area. The material is hygroscopic and light sensitive. Keep containers tightly closed. Keep away from heat. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Propylene glycol	10 mg/m ³	WEEL	AIHA

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, apron or lab coat.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	
Odor	
pH	9.0-10.5
Specific gravity	1.046 min.
Freezing point	-60°C (-76°F)
Boiling point	188°C 370°F
Flash point	Not Flammable
Flammability (solid, gas)	Not Flammable
Upper/lower flammability or explosive limit	Not Explosive
Vapor pressure	10 mmHg at 20°C (68°F)
Vapor density	2.1 (air = 1)
Solubility	Completely soluble in water.
Percent volatile by Volume	NIL

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Storage below 15.5°C (60°F) or above 65.5°C (150°F)
Incompatible Materials	Oxidizing agents, acids, alkalis, chloroformates, caustics, aliphatic amines, isocyanates, acid anhydrides, silver nitrate, reducing agents.
Hazardous Decomposition Products	Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Propylene Glycol

Skin	LD50 Dermal – rabbit – 20,800 mg/kg
Eyes	Not Available
Respiratory	Not Available
Ingestion	LD50 Oral – rat – 20,000 mg/kg
Other	LD50 Intramuscular – rat – 14 g/kg LD50 Intravenous – dog – 26 g/kg LD50 Intraperitoneal – rat – 6,660 mg/kg LD50 Subcutaneous – rat – 22,500 mg/kg LD50 Intravenous – rat – 6,423 mg/kg LD50 Intraperitoneal – mouse – 9,718 mg/kg LD50 Subcutaneous – mouse – 17,370 mg/kg LD50 Intravenous – mouse – 6,630 mg/kg LD50 Intravenous – rabbit – 6,500 mg/kg

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Mild irritation.
Eyes	Mild irritation.
Respiratory	Irritation to respiratory tract.
Ingestion	Gastrointestinal irritation, nausea; headache.
Chronic Toxicity	May cause damage to central nervous system (CNS)
Teratogenicity	May cause adverse reproductive effects and birth defects.
Mutagenicity	May affect genetic material.
Embryotoxicity	Not Available
Specific Target Organ Toxicity	Not Available
Reproductive Toxicity	Not Available
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Propylene Glycol

Aquatic Vertebrate	Mortality NOEC – Pimephales promelas (fathead minnow) – 52,930 mg/l – 96 hours
Aquatic Invertebrate	Mortality NOEC – Daphnia magna (water flea) – 13,020 mg/l – 48 hours EC50 – Daphnia magna (water flea) - >10,000 mg/l – 48 hours
Terrestrial	Not available

Persistence and Degradability	Not available
Bioaccumulative Potential	Not available
Mobility in Soil	Not available
PBT and vPvB Assessment	Not available
Other Adverse Effects	Not available

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container or residue.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

14. TRANSPORT INFORMATION

US DOT	Not Dangerous Goods
TDG	Not Dangerous Goods
IDMG	Not Dangerous Goods
Marine Pollutant	No
IATA/ICAO	Not Dangerous Goods

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Not Listed
SARA 302	No SARA Hazard
SARA 304	No SARA Hazard
SARA 311	No SARA Hazard
SARA 312	No SARA Hazard
SARA 313	No SARA Hazard
WHMIS Canada	Not WHMIS Listed

16. OTHER INFORMATION

Revision	Date
1.0	06/01/2018

Disclaimer: We believe that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because we have no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. WE MAKE NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE.