



MATERIAL SAFETY DATA SHEET

HTF-PG/FP
Heat Transfer Fluid
Inhibited Propylene Glycol

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Ver. No: 1
Ver. Date: 9/1/01

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303-292-0595

SECTION 1 - IDENTIFICATION

Product Name: HTF-PG/FP
Product Description: Heat Transfer Fluid – Inhibited Propylene Glycol – Fire Protection
Chemical Name: Inhibited propylene glycol, aqueous solution
Chemical Family: Mixture
Formula: Mixture
Synonyms: Heat transfer fluid, coolant
DOT Identification No.: Not regulated
DOT Shipping Name: Not regulated

SECTION 2 - TYPICAL COMPOSITION

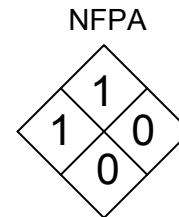
<u>MATERIAL</u>	<u>CAS No</u>	<u>% WT</u>
Propylene Glycol	000057-55-6	95.3%
Dipotassium Phosphate	007758-11-4	< 4.0%
Proprietary Non-Hazardous Antifoam	Not applicable	< 0.1%
Deionized Water	007732-18-5	Balance

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not "Hazardous" per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

SECTION 3 - HMIS RATINGS

Health: 1
Flammability: 1
Reactivity: 0
Special: 0

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



SECTION 4 – PHYSICAL DATA

Appearance and odor:	Colorless, odorless liquid
Boiling Point (760 mm Hg):	370°F, 188°C
Specific Gravity (water =1):	1.05-1.06 @ 60/60°F, 16°C
Vapor Density (air =1):	2.62
Solubility in Water (% by wt):	Complete
Vapor Pressure:	0.22mmHg @ 68°F, 20°C
pH:	9.0-10.0

SECTION 5 – HEALTH HAZARD DATA

TLV and source:	Not applicable	
Effects of overexposure:	Eyes:	May cause slight transient eye irritation. Corneal injury is unlikely.
	Skin contact:	Essentially nonirritating to skin on prolonged contact.
	Skin Absorption:	A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. The LD50 for skin absorption in rabbits is >100,00 mg/kg. Repeated exposure may cause slight flaking, tenderness and softening of skin.
	Ingestion::	Single dose oral toxicity is low. The LD50 for female rats is about 20.3 g/kg
	Inhalation:	A single prolonged (hours) inhalation exposure is not likely to cause adverse effects. Mists are not likely to be hazardous.
Systemic & Other Effects:	Repeated excessive ingestion may cause central nervous system effects. No carcinogenic effects have been seen in long-term animal studies. Birth defects are unlikely. Exposures having no adverse effects on the mother should have no effect on the fetus. In animal studies, has been shown not to interfere with reproduction. Results of mutagenicity tests in viro (test tube) and in animals have been negative.	
Emergency and First Aid Procedures:	Eye contact:	Flush eyes with large amounts of water for 15 minutes. If irritation persists, get medical attention.
	Skin contact:	Wash off in flowing water or shower. Wash contaminated clothing before reuse.
	Ingestion:	Induce vomiting immediately and seek medical attention. Never give anything by mouth to an unconscious person.
	Inhalation:	Remove to fresh air. If breathing has stopped, start artificial respiration. Seek medical attention.
Note to Physician:	No specific antidote. Supportive care. Treatment based on judgement of physician in response to reactions of the patient.	

SECTION 6 – FIRE AND EXPLOSION HAZARD DATA

Flash Point:	215°F, 102°C
Method Used:	COC
Flammable limits in air (% by volume):	LTL:-2.6%@100°C UFL-12.5%@130°C
Extinguishing media:	Water, fog, foam, CO ₂ , dry chemical
Special Fire Fighting procedures:	Full protective equipment including positive-pressure, self-contained breathing apparatus. During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Seek medical attention.
Unusual Fire and Explosion Hazards:	Closed containers may rupture or explode due to steam pressure build-up when exposed to extreme heat. Water may be used to cool closed containers.

SECTION 7 – REACTIVITY DATA

Stability (conditions to avoid):	Stable
Incompatibility:	Oxidizing material.
Hazardous decomposition products:	None known.
Hazardous polymerization:	Will not occur.

SECTION 8 – SPILL OR LEAK PROCEDURES

Steps to be taken if material is released or spilled:	For small spills, soak up with suitable absorbent material. For large spills, dike and pump into suitable containers. Clean up residual water.
Waste disposal method:	Salvage or burn in approved facilities in accordance with local, state and federal regulations.

SECTION 9 – PERSONAL PROTECTION INFORMATION

Exposure Guideline(s):	Propylene Glycol: AIHA WEEL is 50 ppm total, 10mg/m ³ aerosol only. 10mg/m ³ for Propylene Glycol mist, 400ppm for Propylene Glycol vapors.
Respiratory protection:	If personal exposure cannot be controlled below applicable exposure limits by ventilation, wear respiratory devices approved by NIOSH/MSHA, for protection against organic vapors, dust, fumes and mists.
Ventilation:	Local exhaust is recommended.
Protective gloves:	Where skin contact may occur, chemical-impervious gloves should be worn.
Eye protection:	Use chemical goggles or full face shield when the danger of splashing exists
Other protective equipment:	Rubber apron or similar protective clothing to prevent contact with skin or clothes.

SECTION 10 – ADDITIONAL PRECAUTIONS

Alkaline irritant:	Avoid contact with skin, eyes and clothing. Do not take internally. Clean up spills immediately.
Precautions to be taken in handling and storage:	Keep containers tightly closed when not in use. Store only in containers that are resistant to alkaline solutions with a pH of 9.0-12.0.
Regulatory Information: (Not meant to be all-inclusive – selected regulations represented.)	Notice: The information herein is presented in good faith and believed to be accurate as the effective date shown above. However, no warranty, expressed or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.
U.S. Regulations:	SARA Hazard Category: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: A delayed health hazard.

SECTION 11 – GENERAL COMMENTS

THE INFORMATION GIVEN HEREIN IS GIVEN IN GOOD FAITH AND FROM SOURCES WE BELIEVE RELIABLE. BUT NO WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS IS MADE.

The conditions or methods of handling, storage, use and disposal of this product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not apply.

CONSULT ADDITIVES INC. FOR FURTHER INFORMATION.