PRODUCT NAME:

Trade Name: KP-PG HEAT TRANSFER FLUID USP/EP

SECTION 1: HAZARDOUS INGREDIENTS / IDENITY INFORMATION

<u>HAZARDOUS COMPONENTS</u> <u>CAS # TWA/TLV</u>

PROPYLENE GLYCOL, USP/EP (57-55-6) TWA 400 PPM

SECTION 2: PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: $367^{\circ} - 372^{\circ}$ F. **Specific Gravity** (H2o =1): 1.038 AT $68/68^{\circ}$ F.

Vapor Pressure (mm Hg): < 0.1 kPa @77 deg F. Melting Point: N/A

Vapor Density (Air =1): 2.6 Evaporation Rate (Butyl =1): 0.005

Solubility in Water: COMPLETELY SOLUBLE IN WATER

Appearance and Odor: WATER-WHITE LIQUID, MILD ODOR.

SECTION 3: FIRE AND EXPLOSION HAZARD DATA

Flash Point: (Method): 214° F CLOSED CUP

Hazardous Combustion Products: May form; carbon dioxide and carbon monoxide, organic compounds.

Extinguishing Media:

Water spray, CO² (Carbon Dioxide), dry chemical, alcohol-resistant foam.

Special Fire Fighting Procedures:

No special fire hazards are known to be associated with this product. Wear full firefighting turn-out gear (full bunker gear) and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid, this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if I can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

Flammability Class for Flammable Liquids: Combustible Liquid Class IIIB

NFPA Hazard Rating: Health: 0 Fire: 1 Reactivity: 0 Special: -- HMIS Hazard Rating: Health: 0 Fire: 1 Reactivity: 0 Special: -- NPCA Hazard Rating: Health: 0 Fire: 1 Reactivity: 0 Special: --

KRISS PREMIUM PRODUCTS INC 3400 E 42ND STREET MINNEAPOLIS, MN 55406

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SECTION 4: REACTIVITY DATA

Stability: STABLE

Incompatibility:

Avoid contact with; strong acids, strong bases, strong oxidizing agents.

Hazardous Polymerization:

Will not occur.

Hazardous Decomposition Products:

May form; carbon dioxide and carbon monoxide, organic compounds

SECTION 5: HEALTH HAZARDS

CAUTION! THIS PRODUCT MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE, OR NAUSEA. WHILE THIS MATERIAL HAS A LOW LEVEL OF TOXICITY, GOOD INDUSTRIAL HYGIENE PRACTICES ARE ENCOURAGED TO MINIMIZE EXPOSURE.

POTENTIAL HEALTH HAZARDS

Routes of Entry: Inhalation: YES Skin and Eyes: YES Ingestion: YES

Inhalation:

It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying or stirring). Breathing small amounts of this material is not likely to be harmful.

Eve Contact:

May cause mild irritation. Symptoms include stinging, tearing, and redness.

Skin Contact:

May cause minimal irritation. Symptoms may include redness and burning of skin. Although rare, skin contact with propylene glycol may cause allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects.)

Ingestion:

Very low single dose and repeated application toxicity LD 50 (DOGS) greater than 9500 mg/kg. May cause nausea, vomiting, lethargy or, diarrhea if ingested in excess quantities.

Aggravated Medical Conditions: Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material; lung (for example. Asthma-like conditions), kidney.

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals, kidney damage.

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SECTION 5: HEALTH HAZARDS cont'd

Carcinogenicity:

This material is not expected to cause cancer in humans since it did not cause cancer in laboratory animals. This material is not listed as a carcinogen by the Ine4rnaional Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

Propylene glycol was not harmful to the fetus in laboratory animal studies.

Other information

Propylene glycol may be absorbed in potentially harmful amounts when applied in large quantities to severe burns (second or third degree) over large areas of the body as elevate serum osmolality and may result in osmotic shock.

SECTION 6: FIRST AID

Eye Contact:

If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. Seek medical attention if symptoms persist or there is any visual difficulty.

Skin Contact:

Remove contaminated clothing. Wash exposed area with soap and water. Launder clothing before reuse. Contact will probably cause no more than irritation. If symptoms develop, seek medical attention.

Inhalation:

First aid is not normally required. If symptoms develop, move individual away from exposure and into fresh air. If symptoms develop, seek medical attention.

Ingestion:

Low toxicity. First aid is not normally required. Contact poison control or a physician should symptoms develop.

SECTION 7: SPECIAL PROTECTION INFORMATION

The following is general guidance for handling this product. Personal protective equipment should be selected for individual applications. Factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation should be considered.

Ventilation type:

General Room ventilation should be adequate for normal conditions of use. Local mechanical ventilation may be required if levels are expected to exceed the requirements or if unusual operating conditions exist.

SECTION 7: SPECIAL PROTECTION INFORMATION cont'd

Respiratory Protection:

None required under normal conditions. If exposure is expected to exceed PEL limits, wear a NIOSH approved respirator is advised in absence of proper environmental control.

Skin Protection:

Wear normal work clothing including long pants, long sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or local safety equipment supplier to determine the proper personal protective equipment for your use. Wear chemical resistant gloves.

Eye Protection:

Not required under normal conditions of use. Wear chemical splash goggles if material could be misted or splashed into eyes.

SECTION 8: SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURE

Handling:

Containers of this material may be considered hazardous when empties. Since emptied containers retain product residues (vapor, liquid, and/or sold), all hazard precautions given in the data sheet must be observed. Warning: Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions, without the presence of obvious ignition sources. Published "auto ignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

Storage: Store in cool, dry, ventilated area, away from incompatible substances.

Spill and Leak Procedure:

Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed. Stop spill at source, dike area of spill to prevent spreading, cover sewer grate(s) and recover free product, pump liquid to salvage tank. Remaining spill may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers. Per good environmental management practices, prevent run-off to sewers, streams and other bodies of water. Close container tightly and dispose of following all Federal, State and local regulations.

Waste Disposal Methods:

Dispose of in accordance with all applicable local, state, and federal regulations.

Other Precautions:

Wash with soap and water before eating, drinking, smoking, or using toilet facilities.

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SECTION 9 - REGULATORY INFORMATION

Proper Shipping Name: **NONE**

Hazard Class: NONE

ID Number: NONE

Label Requirements: NONE

Reportable Quantity:

SECTION 313 SUPPLIER NOTIFICATION:

This product contains the following toxic chemicals subject to reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986 and of 40 CFR 372:

NONE

END OF FORM

Date prepared: 04/06/01 revised 06/30/08

Notice: We believe that the information contained on this Material Safety Data Sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily adequate in every circumstance. These suggestions should not be confused with or followed in violation of applicable laws, regulations, rules or insurance requirements. The seller makes no warranty expressed or implied concerning the accuracy or any results obtained from the use of any information and no warranty expressed or implied concerning the use of the products. The buyer assumes all risks of the use and/or handling.

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