KOSTChill PG FG Heat Transfer Fluid

KOSTChill PG FG Heat Transfer Fluid is fully-formulated propylene glycol based heat transfer fluid containing an inhibitor and additive package that controls corrosion of metals, helps prevent scaling and the fouling of heat transfer surfaces and buffers the pH to maintain it in the optimum operating range. It was specifically designed for use in applications, such as stationary engines and refinery and chemical plant processes. It has been tested per ASTM D 1384, which is the accepted industry standard for multi-metal corrosion test, for steel, cast iron, aluminum, copper, brass and solder. This fluid is also compatible with most plastics, elastomers and types of rubber. The multi-component inhibitor system formulation makes KOSTChill PG FG Heat Transfer Fluid equivalent or better in terms functionality and performance to the very best national brands on the market today. It is also stable when mixed with water containing up to 350 ppm total hardness.

KOSTChill PG FG Heat Transfer Fluid is registered by NSF as a HT-1 approved product and by the CFIA (Canadian Food Inspection Agency) where incidental contact with food maybe possible. Relative to ethylene glycol, propylene glycol has a lower acute oral toxicity. Accordingly, propylene glycol based heat transfer fluids are at least preferable and often required in food processing industry and recreational vehicle applications in which they may make accidental contact with foods and beverages or where they may contaminate potable and drinking water or environmental contamination. In some municipalities, the use of propylene glycol is required by law or regulation. The propylene glycol and additives used in KOSTChill PG FG Heat Transfer Fluid are manufactured with ingredients classified as GRAS, or generally recognized as safe, by the FDA or acceptable as food additives (Food Additive Regulations, Subparts 182 and 184). Propylene glycol also has a higher viscosity than ethylene glycol, which results is somewhat lower heat transfer efficiency and somewhat more difficult cold weather pump start-up for propylene glycol based fluids.

KOSTChill PG FG Heat Transfer Fluid has a recommended operating temperature range of -50°F to 325°F when mixed with appropriate water concentrations. They can be used to provide both freezing and burst protection for systems exposed to very low temperatures. The freezing point is the temperature at which ice crystals first begin to appear. As the temperature continues to fall below this point, an ice and glycol slush forms until the temperature at which the solution freezes solid is reached. The latter is the burst point, or the point at which the expanded, frozen KOSTChill PG FG Heat Transfer Fluid can cause piping, pumps, etc. to crack or rupture.

KOST USA recommends the use of deionized or distilled water for dilution. However, tap water, well water or city water may be used when it meets the quality standards. KOSTChill PG FG Heat Transfer Fluid contain ingredients that help prevent water hardness compounds from reacting with the inhibitors and additive package to form precipitates, which can form corrosion promoting and heat transfer limiting deposits. It is recommended that water with no more than 350 ppm hardness be used to dilute concentrate or as make-up water for systems. Chlorides and sulfates are usually present in municipal water and should be limited to levels no greater than 50 ppm.

KOST USA, INC. • 8118 Corporate Way - Suite 105 • Mason, OH 45040
Phone 800-661-9391 • Fax 513-492-5555
www.kostusa.com

Made in the U.S.A.

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KOSTChill PG FG Heat Transfer Fluid is also available in pre-diluted concentrations with the same performance characteristics as the KOSTChill PG FG, but has already been diluted with deionized water for ready to use requirements. Other dilution concentrations are available upon request.

Features

- Food and Beverage Use
- Low foaming tendency test
- Multi-metal Corrosion Protection
- Hard Water Stability
- Lower Environmental Toxicity
- Tested per ASTM D4340 (Aluminum Corrosion at Heat Transfer Surface)
- Tested per ASTM D2570 (Simulated Service Metal Coupon Corrosion Test)
- Operating Temperature of -50°F to 325°F

Applications

- HVAC Systems- Freeze, Burst, Corrosion Protection
- Solar Heating
- Thermal Energy Storage
- Sidewalk and Playing Field Subsurface Heating
- Cold Room Dehumidify
- Process Cooling and Heating
- Refrigeration warehouse floor heating
- Ice Rinks
- Computer Cooling Systems
- Some Engine Uses

Typical Properties	Full Strength	35/65	50/50
Propylene Glycol, % wt	96	34	49
Inhibitors and Water, % wt	4	66	51
Specific Gravity (60/60 °F)	1.055	1.015	1.031
pH of Solution	8.0 – 9.5	9.4	9.4
Reserve Alkalinity, ml	15 min	7	7
Other chemical and engineering specifications are available upon request			
Product #	2548	2555	2553

NSF
Nonfood Compounds
Program Listed HT1
139285