

ADDITIVES INC.

Heat Transfer Fluids

Additives Inc. specializes in the development and the production of propylene and ethylene glycol-based heat transfer fluids. The use of Additives Inc. Add Paks and heat transfer fluids systems in your products and customers' systems will ensure: consistent product quality, economy, ease of blending corrosion prevention, long-life dependability, and minimization of laboratory time and expense. Our chemists have developed a variety of stand-alone Add Paks for: glycol-based heat transfer fluids, glycol-based safety hydraulic fluids, and alkylate-based high-temperature fluids. We can adjust formulations to meet your specific needs for performance enhancing additives, in both light- and heavy-duty systems.

Quality Control

Each individual batch of heat transfer fluid is rigorously tested for conformance with product and industry specifications prior to storage, packaging, or shipment. A laboratory analysis is thoroughly conducted by Additives Inc, and a Certificate of Analysis for each lot is produced and is available to customers.

Technical Support

Our laboratories will conduct a complete analysis of samples of our fluids from your systems quarterly. Simply send a one-pint sample to our laboratory and we will send you a written report including any recommendations on needed fluid maintenance actions. We will provide make-up inhibitor solutions as needed. We will also assist by testing samples to aid in problem solving efforts at any time.

HDIS-PG-60

Inhibited Propylene Glycol Heat Transfer Fluid

Product Description and Applications

HDIS-PG-60 is a superior heat transfer fluid for any applications requiring a non-hazardous but durable heat transfer medium which can operate over a wide temperature range. The propylene glycol base is diluted with high-purity deionized water to increase the stability of the fluid and minimize scaling problems. None of the inhibitors used in this product are classified as hazardous, which makes it acceptable for applications in which incidental contact with food materials may occur. HDIS-PG-60 will protect all metals commonly used in cooling systems from corrosion, including copper, solder, brass, steel, cast iron and aluminum, as supported by ASTM D 1384 test results. It is also compatible with most plastics and elastomers. This product is especially suited for colder climates where wintertime shutdowns could prove to be a major problem in terms of freeze-ups and equipment damage. HDIS-PG-60 will operate at fluid temperatures down to -50°F, and will not begin to form crystals until -60°F. Crystal/liquid slushes continue to thicken as the temperature falls, but will not freeze solid until well below -100°F, providing excellent burst protection for piping and equipment.

HDIS-PG-60 is designed to provide a long service life. Its inhibitor system contains no silicates, which tend to form gelatinous sludges over time, and no oxidizing inhibitors, which accelerate the degradation of propylene glycol. Under normal operating conditions, HDIS-PG-60 should last for many years.

To assist our customers in prolonging the life of their fluids, Additives Inc. provides free fluid analyses at six-month intervals. Our laboratory will test your samples for all key specification properties and inhibitor levels, and provide you with a report on the test results. We will make recommendations as appropriate, based on our findings, and can provide you with inhibitor/pH/reserve alkalinity booster packages, if necessary. We will also test samples for our customers for start-up or fluid replacement situations and whenever trouble-shooting assistance is needed.

Product Specifications

Appearance	Clear to cloudy colorless liquid.
Propylene Glycol (wt.%)	95.3 min.
Inhibitors and Water (wt.%)	4.7 max.
Specific Gravity (60°F)	1.05-1.06
pH	9.5-10.0
Reserve Alkalinity (ml)	15-20
Operating Range	-50°F - 250°F
Boiling Point	225°F
Burst Point	< -100°F
Freezing Point	-60°F
Flash Point	None

Technical Contact Information

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