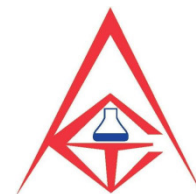


PRODUCT INFORMATION

A PRODUCT OF AMERICAN CHEMICAL TECHNOLOGIES, INC.



HTF 600

High Temperature Heat Transfer Fluid

DESCRIPTION:

HTF 600 is a high performance, efficient and environmentally friendly fluid engineered for applications requiring high temperature stability to 332°C (630°F). Offering precise temperature control is a great alternative to high temperature aromatic fluids, at a fraction of the cost. It is ideal for a wide range of applications including high-temperature batch processing, chemical reactions, pharmaceutical and resin manufacturing among others.

THE DIFFERENCE:

Our exclusive additive package, including a dual-stage antioxidant, ensures long, trouble-free operation. **HTF 600** also incorporates metal deactivators, a seal and gasket extender, defoaming and particle suspension agents.

LASTS LONGER:

In the heat transfer fluid industry, cost is always a concern. However, fluid longevity and resistance to harmful fouling are of equal importance. Air contact is normally detrimental to a fluid. Oxidation can cripple your system and, if left unchecked, will ultimately cause catastrophic failure. Unscheduled downtime due to oil failure has a high cost and negative effect on production. Most other fluids fall short in their protection from oxidation and can quickly foul a system. **HTF 600** is engineered to give unsurpassed levels of protection and service life.

RUNS CLEANER:

In our effort to truly service the heat transfer industry, we have developed unique and specific heat transfer system cleaners. Ranging from preventative maintenance system cleaners to emergency downtime system revivers, we have a cleaner that fits your needs and schedule.

ENVIRONMENTAL:

HTF 600 is environmentally friendly, non-toxic, non-hazardous, and non-reportable. Worker health and safety is of great concern, **HTF 600** poses no ill effect to worker safety. After its long service life, it can easily be disposed of with other waste oils.

TECHNOLOGY BEHIND HTF 600:

Just about any fluid will transfer heat with some degree of efficiency; it is how long it lasts and how clean it keeps your system while it is running that makes the difference. We start with various highly stable, naturally resilient base stocks like highly refined, severely hydrotreated pure paraffinic oils, but where a lot of fluids stop, we continue with a blend of additives specific to heat transfer applications. Our package is

finely tuned and formulated for heat transfer fluids. While some might say the use of additives is not necessary, read below and decide if your system needs the extra protection of **HTF 600**.

ANTIOXIDANTS:

Critical to any application that is not sealed from the atmosphere. If you don't have a nitrogen blanket on your expansion tank or reservoir, it is crucial that your fluid contain an antioxidant. Oxidation leads to sludge formation, which, left unchecked, could cause blockages and lead to complete system failure. Our fluids contain a dual stage antioxidant.

CORROSION INHIBITORS:

Most systems at some point in time will have water contamination. Whether from leaky heat exchangers or drawn from humid air, moisture venting through the expansion tank or oil reservoir can lead to corrosion inside the tank. Our corrosion inhibitors virtually eliminate the chance for corrosion.

DEFOAMING AGENTS:

During start up, air can become trapped in a system. As you pump this creates air bubbles which can lead to pump cavitations, possibly damaging pumps and other system components. Our additive package contains defoaming agents to help keep air from forming in the oil.

SEAL & GASKET EXTENDER:

High temperature applications are hard on seal and gasket materials. Our seal and gasket extenders help fight heat damage that can cause premature seal failure. You pay a lot for high temperature seals and you would want them to last as long as possible.

SUSPENSION AGENTS:

Some fluids after years of use tend to develop carbon and other particulate matter. Even new systems have weld slag, metal shavings, etc. that can become trapped in instrument lines or cause problems in other areas. Our suspension agents help to ensure particulate is held in suspension and easily filtered or caught in strainers.

METAL DEACTIVATORS:

Some metals used in the construction of heat transfer systems can actually react with the oil, causing premature breakdown. Our metal deactivators ensure compatibility with any system, even those with copper lines, heat exchangers or fittings.

PROPERTIES:

	Test Method	Code
Appearance		
Appearance		Clear and bright liquid
Color		Colorless
Physical Form		Liquid
Odor		Very slight hydrocarbon odor
Viscosity or Base Oil Viscosity		
Viscosity @ 40 °C	ASTM D445	36.2 cSt
Viscosity @ 100 °C	ASTM D445	7.0 cSt
Fluidity		
Pour Point	ASTM D97	-18°C (-1°F)
Density		
Specific Gravity @ 25 °C	ASTM D1298	0.853 g/cm ³
Thermal characteristics		
Coefficient of Thermal Expansion	ASTM D1952	0.1011 %/°C (%/°F)
Vapor Pressure @ 25°C (77°F)	ASTM D323 ASTM D5482 ASTM D2879	0.00 kPa (0.00 psia)
Specific Heat @ °C (°F)	ASTM E1269	J/g°K (cal/g°C)
Thermal Conductivity	ASTM D5930	0.143 W/mK (0.082 BTU/ft°F)
Distillation Range 10%	ASTM D2887	386°C (727°F)
Distillation Range 90%		483°C (902°F)
Flammability		
Flash Point	ASTM D92	229°C (444°F)
Fire Point	ASTM D92	244°C (472°F)
Autoignition Temperature	ASTM E659	368°C (693°F)
Corrosion Protection		
Copper Strip Corrosion	ASTM D130	1a

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