

METATRON™ 570

DESCRIPTION:

Metatron™ 570 is a non-corrosive 100% paraffinic heat transfer fluid that is formulated to provide fast and efficient heat transfer when used in a closed system application with expansion tank temperatures up to 315°C (600°F) and in open systems where the does not exceed a bulk temperature of 315°C (600°F) or 204° (400°F) at the point of exposure to air.

EXCELLENT RESISTANCE TO THERMAL DEGRADATION AND CRACKING:

One of the most vital properties a heat transfer fluid must possess is resistance to thermal degradation and thermal cracking when it is exposed to high temperatures. If a heat transfer fluid is unable to resist thermal degradation and cracking it can form sludge, carbon and coke deposits on critical areas of the heat transfer system, resulting in inefficient heat transfer, obstruction to fluid flow and potential fire hazards.

Metatron™ 570 is blended from the highest quality severely solvent refined severely hydrofinished 100% paraffin base oils available. These 100% pure paraffin base oils do not contain any thermally unstable components that may form sludge, carbon and coke deposits when they are exposed to high temperatures. Into the 100%, pure paraffin base oils is blended an effective high temperature anti-oxidation inhibitor additive system. This high temperature anti-oxidation inhibitor additive system provides the **Metatron™ 570** with excellent resistance to thermal degradation and cracking and the formation of oxidation sludge that can cause inefficient heat transfer, obstructions to fluid flow and fouling of the heat transfer system.

LOW VOLATILITY CHARACTERISTICS:

The low evaporation and volatility rates of the 100% pure paraffin base oils allows the **Metatron™ 570** to possess excellent low volatility characteristics. This results in not only lower makeup requirements, but also helps to eliminate vapor lock in the circulating pump, thus reducing the possibility of cavitation, which is destructive to centrifugal pump blades.

INCREASED HEATING EFFICIENCY:

Metatron™ 570 possesses not only the ability to resist heat, but also possess the ability to effectively and efficiently transfer heat. **Metatron™ 570** high viscosity index results in the product resisting a minimum change in viscosity over a wide temperature range, thus providing the **Metatron™ 570** with the ability to have a high rate of circulation under a wide range of operating temperatures.

Metatron™ 570 high thermal conductivity and high specific heats further enable the product to effectively remove and transfer large amount of heat for efficient operation of the heat transfer system. This results in not only more even and better heat distribution but also in lower energy costs and longer equipment life.

COMPATABILITY:

Metatron™ 570 is compatible with other petroleum base heat transfer fluids. If it is necessary **Metatron™ 570** can be added to other petroleum base heat transfer fluids as makeup as long as the existing fluid is in good condition. The mixing of the **Metatron™ 570** with a heat transfer fluid that is in poor condition can cause the precipitation of sludge and varnish deposits particularly at elevated temperatures.

BENEFITS:

Metatron™ 570 provides the following performance benefits:

1. High thermal efficiency for rapid and efficient transfer of heat.
2. A low vapor pressure at elevated temperatures and a high boiling point in order to prevent pressure build-up.
3. Flash points significantly above 191°C (390°F) and Auto-Ignition Temperatures above 320°C (608°F).
4. Excellent low volatility characteristics.
5. Excellent thermal and oxidative stability.
6. Excellent resistance to the formation of high temperature sludge, varnish and carbon deposits.
7. Non-corrosive to system parts.
8. Excellent hydrolytic stability and resistance to emulsification with water.
9. Non-fouling upon degradation.
10. Excellent compatibility with other petroleum base heat transfer fluids.
11. Excellent compatibility with all types of seals, materials of construction and finishes commonly found in heat transfer systems.
12. Lower energy costs.
13. Long service life.
14. Longer equipment life.

TYPICAL PROPERTIES:

Specific Gravity @ 15°C (60°F)	0.8705
Viscosity, SUS @ 38°C (100°F) (ASTM D-445)	250-270
Viscosity @ 40°C (ASTM D-445)	48.5-52.2
Viscosity @100°C (ASTM D-445)	7.09
Viscosity Index (ASTM D-2270)	97
Flash Point °C/°F (ASTM D-92)	229°/445°
Fire Point °C/°F (ASTM D-92)	249°/480°
Auto-Ignition Point °C/°F (ASTM D-2155)	368°/695°
Pour Point °C/°F (ASTM D-97)	-15°/15°