

# SPX HEAT TRANSFER OIL

INHIBITED MINERAL OIL FOR USE IN OPEN AND CLOSED HEAT TRANSFER SYSTEMS

SPX Heat Transfer Oil is a thermally stable, paraffinic mineral oil recommended for use in open and/or closed liquid phase heat transfer systems. It is formulated with proper additives for rust, corrosion, and oxidation protection to prevent sludge buildup and deposit formation within the circulation system.

## Advantages

- Good oxidation resistance to minimize sludge and deposit formation
- Protects against rust and corrosion
- Performance in both open and closed heat transfer systems

## Applications

- Recommended for use in systems where fuel oil, gas, or electricity is used to heat a fluid, which then transfers the heat to the point of application.
- In closed, forced circulation systems equipped with expansion tanks and pressure relief valves, the maximum bulk oil temperature should not exceed 550°F (288°C). Nitrogen, or other inert gas, is recommended for use under positive pressure within an expansion tank. Hot heat transfer oil should not come into contact with air.
- In open, forced circulation systems the maximum bulk oil temperature should not exceed 225°F (107°C).
- Skin film temperatures can be between 50°F and 75°F above the bulk oil temperature in properly designed and operating heat transfer systems, but these higher temperatures have the potential to shorten service life of the oil and cause sludge and deposits.

## TYPICAL PROPERTIES

<b>ISO Grade</b>	<b>32</b>	<b>46</b>
Color, ASTM D1500	1.0	1.0
Flash Point (COC), °C (°F)	218 (424)	240 (464)
Fire Point, °C (°F)	TBD	TBD
Pour Point, °C (°F)	TBD	TBD
Viscosity		
cSt @ 40°C	31.7	46.0
cSt @ 100°C	5.5	6.8
Viscosity Index	110	102
Acid Number, mg KOH/g	0.28	0.28
Carbon Residue, wt %	0.17	0.17



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## TYPICAL PROPERTIES

ISO Grade	32	46
Specific Gravity @ 60°F		
15.6°C (60°F)	0.864	0.871
38°C (100°F)	0.850	0.857
160°C (320°F)	0.772	0.779
288°C (550°F)	0.690	0.697
Density, lbs/gal @ 60°F		
15.6°C (60°F)	7.19	7.25
38°C (100°F)	7.08	7.13
160°C (320°F)	6.43	6.48
288°C (550°F)	5.74	5.80
Coefficient of Thermal Expansion, 1/°C (1/°F)		
15.6°C (60°F)	0.000740 (0.000411)	0.000734 (0.000408)
38°C (100°F)	0.000752 (0.000418)	0.000746 (0.000414)
160°C (320°F)	0.000828 (0.000460)	0.000821 (0.000456)
288°C (550°F)	0.000926 (0.000514)	0.000917 (0.000509)
Specific Heat Capacity, C <sub>p</sub> , Btu/lb-°F		
15.6°C (60°F)	0.446	0.444
38°C (100°F)	0.466	0.464
160°C (320°F)	0.572	0.570
288°C (550°F)	0.685	0.681
Thermal Conductivity, Btu/hr-ft-°F		
15.6°C (60°F)	0.0778	0.0771
38°C (100°F)	0.0768	0.0762
160°C (320°F)	0.0716	0.0711
288°C (550°F)	0.0663	0.0657
Vapor Pressure, psia (kpa)		
15.6°C (60°F)	0.0015 (0.011)	0.0039 (0.027)
38°C (100°F)	0.0039 (0.027)	0.0097 (0.067)
160°C (320°F)	0.058 (0.400)	0.085 (0.59)
288°C (550°F)	1.11 (15.31)	1.07 (7.38)

Minor variations in typical properties data are to be expected in normal manufacturing.

### Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet (SDS).



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