



DTC-55



Synthetic Heat Transfer Fluid

SPECIFICATIONS

Synthetic heat transfer fluid for moderate-temperature applications.

DESCRIPTION

Synthetic fluid developed for heat transfer systems operating at moderate temperatures. It is intended for applications requiring thermal stability, adequate low-temperature fluidity, and reliable performance under continuous operating conditions. It is designed to operate within defined bulk temperature, extended-use temperature, and film temperature limits.

APPLICATIONS

Suitable for heat transfer systems requiring a synthetic fluid with stable performance under continuous service and effective operation within moderate temperature ranges. It can be used in circuits where low-temperature pumpability, moisture control, thermal stability, and consistent response under turbulent or transition flow conditions are required.

BENEFITS

- Promotes stable thermal operation.
- Helps extend fluid service life.
- Contributes to reliable system performance.
- Facilitates low-temperature startup.
- Supports operational continuity.

PROPERTIES

- Thermal stability.
- Good fluidity.
- Low moisture content.
- Stable dielectric response.
- Continuous performance capability.

PHYSICAL AND CHEMICAL PROPERTIES

PROPERTY	UNIT	ASTM METHOD	VALUE
Appearance	-	-	Clear, Yellow
Maximum Bulk Temperature	°C	-	≥300 °C (570 °F)
Maximum Extended Use Temperature	°C	-	≥315 °C (600 °F)
Maximum Film Temperature	°C	-	≥335 °C (635 °F)
Normal Boiling Temperature	°C	-	≥351 °C (664 °F)
Pumpability @ 300 mm²/s cSt	°C	-	≤ -8°C (17°F)
Pumpability @ 2000 mm²/s cSt	°C	-	≤ -28°C (-18°F)
Flash Point	°C	ASTM D92	≥193 °C (379 °F)
Autoignition Temperature	°C	ASTM E659	≥366 °C (691 °F)
Autoignition Temperature	°C	DIN 51794	≥382 °C (719 °F)
Pour Point	°C	ISO 3016	≤ -54°C (-65°F)
Minimum Fluid Temperature for Turbulent Flow, 10 ft/s, 1-in. Pipe (3.048 m/s, 2.54-cm Pipe)	°C	-	67 °C (152 °F)
Minimum Fluid Temperature for Turbulent Flow, 20 ft/s, 1-in. Pipe (6.096 m/s, 2.54-cm Pipe)	°C	-	45 °C (114 °F)
Minimum Fluid Temperature for Transition Flow Region, 10 ft/s, 1-in. Pipe (3.048 m/s, 2.54-cm Pipe)	°C	-	24 °C (75 °F)
Minimum Fluid Temperature for Transition Flow Region, 20 ft/s, 1-in. Pipe (6.096 m/s, 2.54-cm Pipe)	°C	-	11 °C (52 °F)
Thermal Expansion Coefficient @ 200°C	1/°C	-	0.000961/°C (0.000534/°F)
Heat of Vaporization at Maximum Use Temperature	kJ/kg	-	228 kJ/kg (98.1 Btu/lb)
Average Molecular Weight	-	-	320
Temperatura pseudocrítica	°C	-	512 °C (953 °F)
Pseudocritical Temperature	bar	-	13.2 bar (191 PSIA)
Pseudocritical Density	kg/m3	-	258 kg/m3 (16.1 lb/ft3)
Maximum Moisture Content	ppm	ASTM E203	<150 ppm
Dielectric Constant @ 23°C	-	ASTM D924	2.23

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* Este documento reemplaza todas las versiones anteriores