



**THERMAL  
FLUID  
SOLUTIONS**

[www.thermalfluidsolutions.com](http://www.thermalfluidsolutions.com)

**UK Head Office:** 20 Hallsteads,  
Doveholes, Derbyshire, SK17 8BJ  
**+44 (0) 1298 815862**

**US Office:** 42 S Bethany Bend Cir,  
The Woodlands, Texas, TX 77382  
**+1 346-226-4092**

PRODUCT  
INFORMATION

# THERMINOL SP HEAT TRANSFER FLUID

---

**Therminol SP is a synthetic heat transfer fluid used in moderate temperature applications. Designed for use in non-pressurised or low-pressure indirect heating systems, Therminol SP delivers an efficient and dependable performance.**

## PERFORMANCE BENEFITS

- **Long Life** – You will get years of reliable, cost effective performance, even when operating your system continuously at 290°C (550°F).
- **Excellent Resistance to Fouling** – Therminol SP resists the effects of oxidation up to ten times more than mineral oils, increasing performance.
- **Excellent Low Temperature Pumpability** – Therminol SP is still pumpable at -28°C (-18°F), compared to some mineral oils that will not pump at temperatures below -7°C (20°F). With Therminol SP, your heat transfer fluid system can start-up quickly and easily, increasing operation efficiency.



**THERMAL  
FLUID  
SOLUTIONS**

[www.thermalfluidsolutions.com](http://www.thermalfluidsolutions.com)

**UK Head Office:** 20 Hallsteads,  
Doveholes, Derbyshire, SK17 8BJ  
**+44 (0) 1298 815862**

**US Office:** 42 S Bethany Bend Cir,  
The Woodlands, Texas, TX 77382  
**+1 346-226-4092**

## PRODUCT SPECIFICATION

Appearance	Clear yellow liquid
Composition	Synthetic hydrocarbon mixture
Maximum bulk temperature	290°C (550°F)
Extended maximum use temperature	315°C (600°F)
Maximum film temperature	335°C (635°F)
Normal boiling point	351°C (664°F)
Pumpability, at 300 mm <sup>2</sup> /s (cSt)	-8°C (17°F)
Pumpability, at 2000 mm <sup>2</sup> /s (cSt)	-28°C (-18°F)
Flash point, COC (ASTM D-92)	177°C (350°F)
Autoignition temperature (ASTM E-659)	343°C (650°F)
Autoignition temperature (DIN 51794)	366°C (691°F)
Pour point (ISO 3016)	-54°C (-65°F)
<b>Minimum liquid temperatures for fully developed turbulent flow (NRe &gt; 10000)</b>	
10 ft/sec, 1 in tube (3.048 m/s, 2.54 cm tube)	67°C (152°F)
20 ft/sec, 1 in tube (6.096 m/s, 2.54 cm tube)	45°C (114°F)
<b>Minimum liquid temperatures for transitional region flow, (NRe &gt; 2000)</b>	
10 ft/sec, 1 in tube (3.048 m/s, 2.54 cm tube)	24°C (75°F)
20 ft/sec, 1 in tube (6.096 m/s, 2.54 cm tube)	11°C (52°F)
Heat of vaporization at max. use temperature	228 kJ/kg (98.1 Btu/lb)
Kinematic viscosity at 100°C (ASTM D-445)	3.52 mm <sup>2</sup> /s (cSt)
Kinematic viscosity at 40°C (ASTM D-445)	19.0 mm <sup>2</sup> /s (cSt)
Liquid density at 25°C (ASTM D-4052)	868 kg/m <sup>3</sup> (7.25 lb/gal)
Average molecular weight	320
Pseudocritical temperature	512°C (953°F)
Pseudocritical pressure	13.2 bar (191 psia)
Pseudocritical density	258 kg/m <sup>3</sup> (16.1 lb/ft <sup>3</sup> )
Copper corrosion (ASTM D-130)	<< 1 a
Moisture content, maximum (ASTM E-203)	150 ppm
Dielectric constant @ 23°C (ASTM D-924)	2.23

Email the **TFS Team**, [office@thermalfluidsolutions.com](mailto:office@thermalfluidsolutions.com)  
or visit [www.thermalfluidsolutions.com](http://www.thermalfluidsolutions.com)