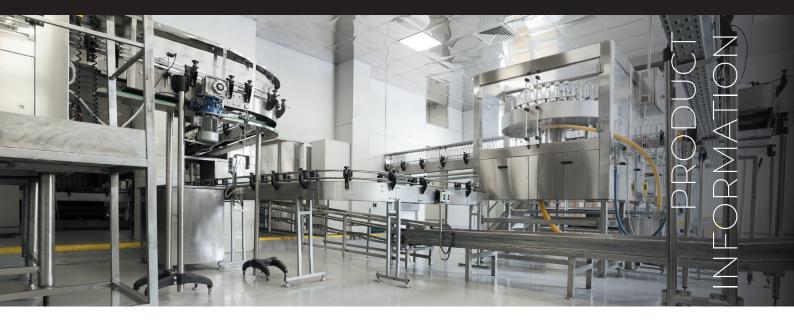


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www.thermalfluidsolutions.com

US Office: 25587 Conifer Road Suite 105-606 Conifer, CO USA 80433 +1 346-226-4092



## THERMINOL XP HEAT TRANSFER FLUID

Our Thermal Fluid Solutions Therminol XP heat transfer fluid is an extremely pure white mineral oil, specially designed for use in food process plants. This reliable, non-toxic oil has been created to increase operation efficiency and reduce environmental impact.

## PERFORMANCE BENEFITS

- Low Fouling The chemical composition of Therminol XP has been carefully selected to minimise system fouling resulting from oxidation and degradation of the fluid.
- **Practically Non-Toxic** This product meets the purity specifications in U.S. Food & Drug Administration (FDA) Regulation 21 CFR 172.878.
- Thermal Stability Users can expect many years of reliable, troublefree operation, even when operating Therminol XP continuously at the recommended maximum temperature of 315°C (600°F).
- Environmentally Friendly Therminol XP has outstanding regulatory status for those seeking heat transfer fluids which have minimum environmental reporting requirements.

NSF and FDA Approved







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## PRODUCT SPECIFICATION

| Appearance                                                                         | Colorless, odorless liquid |
|------------------------------------------------------------------------------------|----------------------------|
| Composition                                                                        | White mineral oil          |
| Maximum bulk temperature                                                           | 315°C (600°F)              |
| Maximum film temperature                                                           | 330°C (625°F)              |
| Normal boiling point                                                               | 358°C (676°F)              |
| Pumpability, at 300 mm2/s (cSt)                                                    | -1°C (30°F)                |
| Pumpability, at 2000 mm2/s (cSt)                                                   | -20°C (-4°F)               |
| Flash point, COC (ASTM D-92)                                                       | 199°C (390°F)              |
| Autoignition temperature (ASTM E-659)                                              | 346°C (655°F)              |
| Autoignition temperature (DIN 51794)                                               | 363°C (685°F)              |
| Pour point (ISO 3016)                                                              | -29°C (-20°F)              |
| Minimum liquid temperatures for fully developed turbulent flow ( $N_{Re}$ > 10000) |                            |
| 10 ft/sec, 1 in tube (3.048 m/s, 2.54 cm tube)                                     | 72°C (162°F)               |
| 20 ft/sec, 1 in tube (6.096 m/s, 2.54 cm tube)                                     | 51°C (123°F)               |
| Minimum vapor temperatures for fully developed turbulent flow ( $N_{Re}$ > 2000)   |                            |
| 10 ft/sec, 1 in tube (3.048 m/s, 2.54 cm tube)                                     | 30°C (85°F)                |
| 20 ft/sec, 1 in tube (6.096 m/s, 2.54 cm tube)                                     | 17°C (63°F)                |
| Coefficient of thermal expansion at 100°C                                          | 0.000892/°C (0.000495/°F)  |
| Heat of vaporization at max. use temperature                                       | 214.0 kJ/kg (91.9 Btu/lb)  |
| Kinematic viscosity at 100°C (ASTM D-445)                                          | 4.06 mm2/s (cSt)           |
| Kinematic viscosity at 40°C (ASTM D-445)                                           | 23.70 mm2/s (cSt)          |
| Liquid density at 25°C (ASTM D-4052)                                               | 875.0 kg/m3 (7.30 lb/gal)  |
| Average molecular weight                                                           | 350                        |
| Pseudocritical temperature                                                         | 542°C (1007°F)             |
| Pseudocritical pressure                                                            | 15.2 bar (220.0 psia)      |
| Pseudocritical density                                                             | 280 kg/m3 (17.5 lb/ft3)    |
| Dielectric constant @ 23°C (ASTM D-924)                                            | 2.14                       |

Email the **TFS Team, office@thermalfluidsolutions.com** or visit **www.thermalfluidsolutions.com**