



A superior high-performance energy efficient mineral oil. For all kinds of industrial process applications requiring low temperature fluidity.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name
Globaltherm® LT Plus
Heat transfer fluid

Company Information
Globaltherm, Cold Meece
Estate, Cold Meece, Stone,
Stafford, ST15 0SP, UK

Emergency telephone
+44 (0) 1785 760555

Web
www.globaltherm.org

2. PRODUCT DESCRIPTION

A superior high performance, energy efficient mineral oil

suitable for use in all kinds of industrial processes.

Globaltherm® LT Plus is a high quality mineral oil combining low vapour pressure and high thermal stability.

Recommended primarily for non-pressurized closed liquid phase systems that incorporate both heating and cooling.

Used fluid may be disposed of through several environmentally acceptable methods, such as used oil recycling or heavy fuels burning. Talk to us about our all-inclusive used oil reprocessing services.

NOTE: When draining hot fluid after flushing, normal safety precautions should be taken to prevent burns and the risk of fire.

3. APPLICATIONS

Globaltherm® LT Plus is a heat transfer agent suitable for applications requiring single fluid heating and cooling.

Globaltherm® LT Plus Heat transfer fluid is recommended for use in a temperature range from -30 °C up to a maximum bulk temperature of 250°C.



4. SERVICE CONSIDERATIONS

As with any heat transfer oil, certain precautions should be taken to ensure satisfactory performance of Globaltherm® LT Plus Heat transfer fluid in service:

- Before full temperature is imposed, all air and water should be completely vented;
- Hot oil is rapidly oxidised by air, causing thickening and deposit formation. At places where the oil is in contact with the atmosphere (e.g., the expansion vessel) the oil should not exceed 60 °C for prolonged times or the oil needs to be blanketed with inert gas. Copper and its alloys promote rapid oil degradation in the presence of air and need to be avoided at these places; and,
- Hot oil circulating pumps must be checked frequently to prevent air from entering.

An analytical routine check of the heat transfer medium, while it is hot and circulating, should be part of the routine maintenance plan. This check should be carried out at least once a year, preferably three to four times a year. Testing can be carried out by Global Heat Transfer - via the Thermocare® lifecycle management programme - to all users of Globaltherm® Heat transfer fluids. The thermal fluid parameters which are measured will allow our experts an accurate assessment of the condition of the fluid. This way, Thermocare® testing and analysis programmes ensure prolonged and trouble-free operation of the fluid. Changes to the condition of the fluid are quickly detected and managed with Thermocare® and can be avoided in time before more extensive damage (to both system and fluid) and further costs are incurred.

Phone: +44 (0) 1785 760555; fax: +44 (0) 1785 760444 to ask about Thermocare® preventative maintenance programmes and heat transfer fluid testing and analysis.

5. COMPATIBILITY

While unused Globaltherm® M Heat transfer fluid is compatible with most organic heat transfer oils, prior laboratory testing is recommended before topping-up the system with this product. Adding Globaltherm® M Heat transfer fluid as a top-up to already severely used oil, especially aromatic types, may precipitate suspended sludge. Call our technical team on +44 (0) 1785 760555 to ask about lab testing and analysis.

6. HEALTH AND SAFETY

Globaltherm® LT Plus Heat transfer fluid presents no hazard to health or safety under good standards of industrial and personal hygiene. Full details of health and medical procedures are contained in the Material Safety Data Sheet.

7. PHYSICAL AND CHEMICAL PROPERTIES

Parameter	Unit	Code (ASTM/ISO)	Result
Appearance	N/A	N/A	Clear, colourless liquid
Operating Range	°C (°F)		-30 to 250°C (-22 to 482°F)
Density @ 15°C	g/ml	ASTM D1298	0.87
Kin. Viscosity 40°C	mm ² /s	ASTM D445	8.2
Kin. Viscosity 100°C	mm ² /s	ASTM D445	2.2
Flash Point PMCC	°C	ASTM D93	140
Flash Point COC	°C	ASTM D92	152
Coefficient of thermal expansion	°C		0.00077
Auto ignition Point	°C	ASTM D2155	310
Pour Point	°C	ASTM D97	-39
Neutralisation Nr (acid), TAN	mgKOH/g	ASTM D974	<0.05
Ramsbottom Carbon Residue	% wt	ASTM D524	<0.05
Specific Heat @ 0 °C	Kcal / Kg °C		0.45
Specific Heat @ 250 °C	Kcal / Kg °C		0.65
Thermal Conductivity @ 0 °C	Wt / m °C		0.118
Thermal Conductivity @ 250 °C	Wt / m °C		0.102
Vapour Pressure @ 245 °C	10 ³ Pa		10

Note: The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This edition supersedes all previous editions and information contained within them. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product. Abbreviations: OC, open cup test; COC, Cleveland open cup test; and, NTR, no test reported.

8. OTHER INFORMATION

In general, the waste code number for Globaltherm® LT Plus Heat transfer fluid will be determined by its application according to the EWC. In those cases, in which it has not been used as heat transfer fluid, follow your local regulations.

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THERMOCARE® IS THE AWARD WINNING
24/7 REAL-TIME CONDITION MONITORING AND
MANAGEMENT SYSTEM FOR HEAT TRANSFER FLUID



thermocare®

**PREVENTATIVE MAINTENANCE FOR COST,
RISK AND PERFORMANCE OPTIMISATION**

Thermocare® will also extend the life of your thermal fluid and reduce your environmental impact.

It's all you need to stay safe, reduce costs and improve productivity for a straightforward fixed cost.

And, what's more we have over 25 years' experience in thermal fluid management so you couldn't be in better hands.

GET IN TOUCH

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Call +44 (0) 1785 760555 **Freephone UK** 0800 298 0488

Email enquiries@globaltherm.org **Find out more** www.globaltherm.org

