



Globaltherm® HF offers one of the highest fluid flashpoints in the industry. The resilient blend of additives also makes it one of the most durable and trouble-free.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name

Globaltherm® HF
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

Globaltherm® HF heat transfer fluid's flashpoint is one of the industry's highest at 530°F (276°C).

Not only does Globaltherm® HF Heat transfer fluid have one of the highest flashpoints available it also contains a resilient blend of additives to ensure long-lasting and trouble-free service when managed correctly.

Globaltherm® HF heat transfer fluid delivers superior resistance to sludging and extreme oxidation found in many manufacturing environments, including plastics processing, molding, casting, asphalt, paint and chemicals.

Globaltherm® HF Heat transfer fluid is environmentally friendly, non-toxic and non-hazardous. It requires no special handling. Used fluid may be disposed of through a number of environmentally acceptable methods, such as used oil recycling or heavy fuels burning.

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

3. APPLICATIONS

Globaltherm® HF Heat transfer fluid is a heat transfer agent suitable for applications requiring single fluid heating and cooling including; plastics processing, moulding, casting, asphalt, paint and chemicals



globaltherm®

HF

HIGH FLASHPOINT SYNTHETIC FLUID

For use in a variety of Industrial Process Applications

PRODUCT INFORMATION

Globaltherm® HF Heat transfer fluid is recommended for use in a temperature range up to a maximum bulk temperature of 640°F (338°C).

5. SERVICE CONSIDERATIONS

As with any heat transfer oil, certain precautions should be taken to ensure satisfactory performance of Globaltherm® HF 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® HF Heat transfer fluid is compatible with most organic and synthetic heat transfer oils prior laboratory testing is recommended before topping-up the system with this product. Adding Globaltherm® HF Heat transfer fluid as a top-up to used fluids may help to increase fluid life (i.e., aromatic types). Global Heat Transfer can assist with lab testing. Please contact our technical team on +44 (0) 1785 760555 for more information.

6. HEALTH AND SAFETY

Globaltherm® HF 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. Please contact our technical team on +44 (0) 1785 760555 for more information.

7. PHYSICAL AND CHEMICAL PROPERTIES

Parameter	Unit	Code (ASTM/ISO)	Result
Appearance	N/A	N/A	Clear, colourless liquid
Operating Range	°C (°F)	N/A	Up to 338°C (up to 640°F)
Density @ 20 °C	kg/m ³	ASTM 1298	850-880
Kin. Viscosity 40°C	mm ² /s (cSt)	NTR	103
Kin. Viscosity 100°C	mm ² /s (cSt)	NTR	10.45
Flash Point	°C	ASTM D92	276
Fire Point	°C	ASTM D92	305
Coefficient of thermal expansion	°C	NTR	0.1011%
Auto ignition Point	°C	ASTM E659-78	393
Pour Point	°C	ASTM D97	-9
Maximum Bulk Temperature	°C	NTR	338
Maximum Film Temperature	°C	NTR	360
Boiling Point	°C	NTR	>343
Average Molecular Weight	NTR	NTR	399
Moisture Content	PPM	ASTM D6304	Not Determined
Operating Range	°C (°F)	N/A	Up to 338°C (up to 640°F)

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

PI Creation Date June 2017 (#1) Revision date NA



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

