PRODUCT INFORMATION

globaltherm®

GLOBALTHERM 55

A superior synthetic fluid that delivers outstanding performance and thermal stability, at high operating temperatures, in a variety of process applications.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name
Globaltherm® 55
Heat transfer fluid

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

Emergency telephone
+44 (0) 1785 760555

Web
www.globalhtf.com

2. PRODUCT DESCRIPTION

A superior synthetic Alkylbenzene mixture heat transfer fluid that delivers outstanding performance and thermal stability at continuously high operating temperatures compared to mineral-based fluids.

Designed for use in indirect heating systems, Globaltherm® 55 Heat transfer fluid offers excellent heat transfer properties over extended periods operating at temperatures up to 290 ºC and can be used up to 315 ºC.

The high boiling point helps reduce the fluid's volatility compared to other fluids.

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.

PRODUCT INFORMATION

globaltherm®

GLOBALTHERM 55

3. APPLICATIONS

Globaltherm® 55 Heat transfer fluid is recommended for use in non-pressurized, indirectly heated, liquid phase heat transfer systems operating at bulk fluid temperatures up to 315°C.

The maximum recommended film temperature is 335°C.

Globaltherm® 55 is less sensitive than mineral oils to the negative consequences (sludging and fouling) of thermal oxidation. Overheating will accelerate decomposition over time.

Globaltherm® 55 is non-corrosive to metals commonly used in heat transfer systems.

For food and pharma applications refer to Globaltherm ® FG HT1 certified food grade heat transfer fluid.

4. SERVICE CONSIDERATIONS

As with any heat transfer oil, certain precautions should be taken to ensure satisfactory performance of Globaltherm® 55 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) oil should not exceed 70°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.

thermocare®
THERMAL FLUID LIFECYCLE MAINTENANCE

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® 55 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® 55 Heat transfer fluid as a top-up to used fluids may help to increase fluid life (i.e., aromatic types). Please contact the technical team for more information and lab services and sample and analysis on +44 (0) 1785 760555.

6. HEALTH AND SAFETY

Globaltherm® 55 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 the 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, yellow liquid
Operating Range	°C (°F)	N/A	-26 to 290 (-15 to 550)
Density @ 25°C	kg/m^3	ASTM D4052	868
Kin. Viscosity 40°C	mm^2/s (cSt)	ASTM D445	19
Kin. Viscosity 100°C	mm^2/s (cSt)	ASTM D445	3.5
Flash Point PMC	°C	ASTM D92	177
Coefficient of thermal expansion 200 °C	°C	NTR	0.000961/°C
Autoignition Point	°C	ASTM E659	343
Pour Point	°C	ISO 3016	-54
Neutralisation Nr (acid), TAN	mgKOH/g	ASTM D974	<0.05
Maximum Bulk Temperature	°C	NTR	290
Maximum Film Temperature	°C	NTR	335
Boiling Point at 1013 mbar	°C	NTR	351
Average Molecular Weight	NTR	NTR	320
Moisture Content	PPM	ASTM D6304	250

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 02nd January 2019