



Low-fouling, non-corrosive and high resistance silicone heat transfer media suitable for concentrated solar power applications.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name

Globaltherm®Omnisol
Heat Transfer Fluid

Company Information

Globaltherm, Cold Meece Estate,
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2. PRODUCT DESCRIPTION

Non-hazardous, low toxicity, silicone based heat transfer fluid.

Globaltherm®Omnisol is the high temperature silicone based thermal fluid for Concentrated Solar Power (CSP) applications.

Globaltherm®Omnisol is a silicone based heat transfer media used in solar thermal storage applications at high temperatures.

Globaltherm®Omnisol can safely withstand temperatures up to 425°C (797°F).

Globaltherm®Omnisol delivers the high thermal stability and reliable heat transfer of a polydimethylsiloxane (also known as dimethylpolysiloxane) mixture with a low pumpability point of -65°C (-85°F).

Globaltherm®Omnisol is a high performing, long life, low toxicity, low fire risk, heat transfer fluid for CSP applications operating up to 425°C (797°F).

Globaltherm®Omnisol is suitable for use in parabolic trough applications requiring a low freeze point and low temperature pumpability.



3. APPLICATIONS

Globaltherm® Omnisol heat transfer media is intended for use as heat-transfer medium in open and closed systems, under inert conditions from -40°C - 425°C in the liquid phase.

4. SERVICE CONSIDERATIONS

Globaltherm® Omnisol heat transfer media is just one of the comprehensive range of high performance heat transfer fluids by Globaltherm for the temperature range from -90 to 600°C.

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

Globaltherm® Omnisol heat transfer media does not corrode metallic materials used in the construction of heat transfer systems. **Globaltherm®** heat transfer fluids provide excellent corrosion resistance to stainless and alloy steels. This eliminates the need for expensive materials and high-pressure components, in addition to increasing the safety of your system.

6. HEALTH AND SAFETY

Globaltherm® Omnisol heat transfer fluid is determined for use in open and closed plant-constructions. Any leakage of the heat transfer medium should be prevented by suitable measures in design and construction or limited to a minimum level. For information on toxicity and safety, consult the latest Material Safety Data Sheet. For system design parameters no TVL has been established for **Globaltherm® Omnisol** heat transfer media.

7. PHYSICAL AND CHEMICAL PROPERTIES

Parameter	Unit	Code (ASTM/ISO/DIN)	Result
Appearance	N/A	Visual	Colourless, odourless, clear
Operating temperature	°C	-	-40 - 425
Pour point	°C	DIN ISO 3016	< -55
Boiling point at 0,6 hPa	°C	-	> 200
Vapour pressure at 25°C	°C	-	NA
Density at 25°C	kg/m ³	DIN 51757	Approx. 0,92g/cm ³
Kinematic viscosity at 25°C	mm ² /s	DIN 51562	4-6 mm ² /s
General product description	Unit	Code (ASTM/ISO/DIN)	Result
Solubility of water	-	DIN 51777	Max. 130ppm
Acid number	-	DIN 51558	Neutral
Flash point (open)	°C	ISO 2592	145
Flash point (closed)	°C	ISO 2719	120
Ignition temperature	°C	En 14522	367

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

Storage and transport

Globaltherm® Omnisol heat transfer fluid has a practically unlimited shelf life in closed steel containers when stored at a maximum temperature of 40°C. Special protective measures are not necessary for the storage of the heat transfer medium. In handling **Globaltherm® Omnisol** heat transfer fluid, care should be taken to ensure that the product cannot enter the soil or drainage systems.

Used **Globaltherm® Omnisol** heat transfer fluid charges should be recycled for material or energy recovery in accordance with local authority regulations.

With regards to the classification of **Globaltherm® Omnisol** heat transfer fluid under the regulation governing the transport of dangerous goods, reference should be made to the Safety Data Sheet. In general, the waste code number for **Globaltherm® Omnisol** 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

PI Creation Date 25th October 2017(#1) Revision date NA



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GET IN TOUCH

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