



The only high efficiency, non-toxic alternative to MEG for closed loop ground and water source heat pumps

**Description**

Kilfrost GEO is a new low viscosity; non-toxic heat transfer fluid, formulated with FDA (Food and Drug Administration) approved heat transfer base fluids, ASTM D1384-05 proven corrosion inhibitors and viscosity modifiers.

Kilfrost GEO has been specifically engineered to improve the performance of closed loop ground and water heat pump collectors. Systems using Kilfrost GEO will benefit from lower pressure drops, reduced pumping costs and higher overall efficiency.

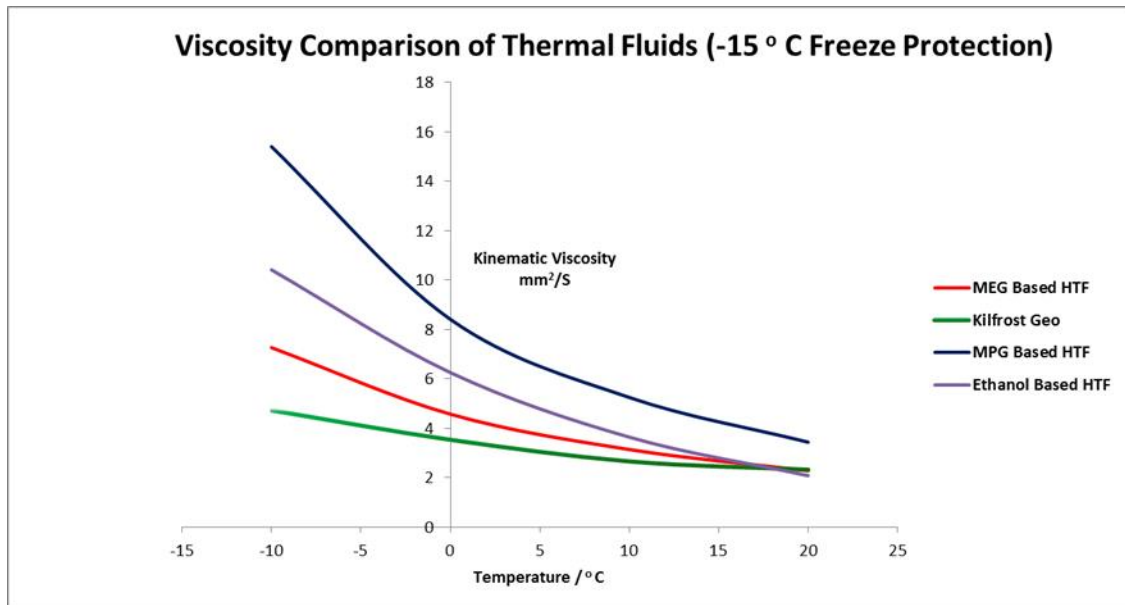
When replacing more viscous fluids such as MPG (propylene glycol) or glycerine (refined vegetable extracts) based heat transfer fluids in existing systems with Kilfrost GEO, customers will benefit from an immediate increase in pumping and heat transfer efficiency, leading to long term energy savings.



- Outperforms MEG, MPG, Bio-PDO & Ethanol based heat transfer fluids
- Leads to lower system pressure drops
- Lower pumping costs
- Protects against corrosion and scaling
- Classified as non-hazardous according to CLP/REACH
- Superior environmental profile
- Free from nitrates, nitrites, borates, heavy metals and phosphates
- Created to Improve MIS 3005 Compliant Collector Design

**Viscosity Comparison**

Kilfrost GEO has been engineered to reduce pressure drops, reduce pumping costs and increase the hydraulic efficiency of closed loop ground and water source heat pumps.



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**Product Data**

Freeze Protection		
Dilution % v/v	Freeze point / ° C	Refractive Index
25	-10	1.3632
30	-15	1.3679
40	-20	1.3794
50	-30	1.3905

Physical data		
Property	Unit of Measurement	Value
pH		8.5-9.5
Refractive Index	n/a	ca 1.4437
Boiling Point	° C	ca 105
German Water Hazard Classification	n/a	WGK1

**User Guidelines**

As per BSRIA guide BG29/2012 all pipework should be cleaned and sanitised to remove all physical debris and biological growth prior to the installation of a thermal fluid.

For added protection, Kilfrost GEO is available pre-diluted with de-ionised water to the required level of freeze protection.

**Monitoring**

A Thermal Fluid Test Kit is available from Kilfrost to monitor the health of Kilfrost GEO as part of a routine maintenance schedule. In addition, Kilfrost offers a number of free comprehensive fluid health checks to its customers

**Dosage**

The dilution rate depends on the freeze point required by the system

- Product concentrate should not be diluted below 25% v/v
- Product dilutions >30% v/v will give optimal corrosion and scale protection
- Kilfrost GEO should not be added to systems that already contain heat transfer fluid

**Kilfrost GEO has a shelf life of 2 years**

**Available Pack Sizes: 25, 215 and 1000 litre and Bulk container sizes.**

The Kilfrost Speciality Fluids Division offers a range of heat transfer fluids which are used in a wide variety of heating and cooling applications.

Global leaders for over 80 years, the Kilfrost brand is synonymous with innovation and technical excellence and continues to lead the way in safety critical markets worldwide.



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