Solaris PGC

Propylene Glycol Antifreeze

For high temperature solar thermal heating systems

Performance Properties

Solaris PGC has been especially formulated for use in Solar Thermal Heating Systems. It is able to operate efficiently at 170°C for prolonged periods and withstand temperatures of 200°C for short periods. It contains reversibly evaporable inhibitors that are capable of withstanding stagnation temperatures of 300°C whilst protecting all metals used in Solar Thermal Heating Systems.

Non Toxic:

Solaris PGC has an LD50 toxicity rating (Oral Rat) of ?15,000 mg/kg of body weight (bw) = “Relatively Harmless”. As confirmed by the Hodge & Sterner Scale.

Protection:

Solaris PGC with reversibly Evaporable Inhibitors has been tested in accordance with BS5117 procedures and found to meet BS6580 and ASTM D1384 corrosion limits.

Solaris PGC also contains a high temperature rated polyacrylate, formulated to prevent sludge precipitation and scale formation. Thus promoting long operational life and high thermal efficiency.

Application

As per BSRIA guide BG 29/2012 all pipe-work systems should be clean and free from biological contamination and debris prior to commissioning. To minimise corrosion air ingress should be minimized. A pressurised system is best. **Solaris PGC** is a concentrate Heat Transfer Fluid that can be diluted with a demineralised or UltraPure™ water, to achieve various freeze protection temperatures. In order to maintain system integrity only top-up with **Solaris PGC**.

Solaris PGC can also be supplied as a Ready-To-Use solution.

Diluting Concentrate

When measuring the percentage concentration of Solaris PGC in solution we recommend the use of a recently calibrated refractometer.

Physical Properties

Frost Protection
-50°C depending on concentration.

Density
1.02 - 1.15 g/cm³ depending on inhibitors

pH
7.5 - 9.0 depending on inhibitors

Boiling Point
>100°C
For operating temperatures above 100°C, refer to Hydratech for technical advice.

Characteristics
a clear, slightly viscous liquid. It is mildly sweet to the taste and has a non-pungent but characteristic aroma.

Biodegradability
Solaris PGC mixtures are readily biodegradable (90% over ten days) and will not remain in the environment or bio-accumulate.

Container Sizes
Available in: 5, 10, 25, 205L drums & 1000L IBCs

Frost Protection °C	v/v of Solaris PGC %	Refractive Index
-13	30.0	1.36690
-17	35.0	1.37240
-21	40.0	1.37773
-26	45.0	1.38298
-31	50.0	1.38800

Fluid Management Services

To ensure inhibitor levels are being maintained and the system fluid is in good condition, we recommend periodic sampling and testing. Hydratech operate the Fluid Monitoring Program (FMP) service for all users of our products. For more information on the FMP please call or visit www.hydratech.co.uk.

Quality Assured

Solaris PGC meets or exceeds the corrosion standards laid down in ASTM D-1384. Hydratech products are manufactured in accordance with ISO 9001: 2015 procedures.

Storage & Shelf Life

At least 3 years when stored in sealed containers, below 40°C and out of direct sunlight.

Health & Safety

Please refer to the associated Safety Data Sheet, which is available on request.

24/7 Technical Support

Technical support services and products to ensure ongoing system efficiency and protection.

tel. 01792 586800
sales@hydratech.co.uk

