Biotherm BP8

Propylene Glycol Antifreeze

For use in high temperature biomass heating systems

Performance Properties

Biotherm BP8 has been especially formulated for use as a Non Toxic heat transfer fluid in Biomass Heating Systems.

Non Toxic:

Biotherm BP8 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.

Optimum Flow:

Biotherm BP8 has improved heat transfer characteristics, including lower Dynamic Viscosity and higher Thermal Conductivity. For detailed comparison please refer to the Fluid Performance Chart - available upon request.

Protection:

Biotherm BP8 contains synergistic corrosion inhibitors to protect metals commonly found in such systems. It has been tested in accordance with BS5117 and found to meet BS6580 and ASTM D1384 corrosion standards.

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.

Determine the total system volume and add **Biotherm BP8** to the system according to the minimum operating temperature required (see table). The minimum dose of **Biotherm BP8** should not be less than 25% of the system volume and the maximum does not normally exceed 60%. We recommend the use of deionised, distilled or UltraPure™ water for this dilution. Avoid water containing high levels of calcium salts or Chlorides [Cl-].

Biotherm BP8 can also be supplied as a Ready-To-Use solution.

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
Biotherm BP8 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

Diluting Concentrate

When measuring the percentage concentration of Biotherm BP8 in solution we recommend the use of a recently calibrated refractometer.

Frost Protection °C	v/v of Biotherm BP8 %	Refractive Index
-10	25.0	1.35900
-15	33.0	1.37000
-20	39.0	1.37600
-25	44.0	1.38200
-30	48.5	1.38600
-35	52.5	1.39100

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

Biotherm BP8 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 online via Login and/or by mail.

24/7 Technical Support

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

tel. 01792 586800

sales@hydratech.co.uk

