
User Guide

ThremaFlo-DTX-25

Non-Toxic Central Heating Fluid

High Efficiency Non-Toxic Heat Transfer Fluid with Antifreeze. Based on Ethylene Glycol blended with patented DeTox™ additive with ASTM D1384 High Temperature Rated Corrosion Inhibitors for use in Hot Water Heating Systems.



Antifreeze



Non-Toxic



Optimum Flow



Protection



Biodegradable



Quality Assured

Contents

Der blev ikke fundet nogen elementer til indholdsfortegnelsen.



Performance Properties

ThermaFlow DTX has been especially formulated for use in Hot Water Heating Systems to exploit the advantages Ethylene Glycol has over Propylene Glycol, whilst delivering a non-toxic solution. Specifically;

- More efficient heat transfer.
- Easier to pump, especially at low temperatures.
- Less volume for the same freeze protection.
- Cheaper per liter.

Antifreeze: ThermaFlow DTX is miscible with water in all proportions and can protect Hot Water Heating Systems down to -50°C depending on concentration.

Non-Toxic: Although based on Ethylene Glycol, ThermaFlow DTX has been tested and classified as Non Toxic by an EPA certified laboratory. Previously Propylene Glycol was the only non-toxic glycol available, that is no longer the case. Hydratech in alliance with Evans Cooling Systems, Inc. have developed and patented the DeTox™ additive. DeTox™ prevents Ethylene Glycol from being metabolized (during digestion) into toxic by-products, which cause kidney failure, blindness and death. Tests carried out on ThermaFlow DTX confirmed the toxicity was "so low that it was impossible to determine an LD50 value".

The DeTox™ additive has very little effect on heat transfer or antifreeze performance. In fact similar volumes of ThermaFlow DTX or Ethylene Glycol are required to achieve a specific freeze protection.

Optimum Flow: ThermaFlow DTX 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: ThermaFlow DTX contains synergistic corrosion inhibitors to protect metals commonly found in such systems. It has been independently tested and found to meet BS6580 and ASTM D1384 corrosion standards.

ThermaFlow DTX also contains scale and biological inhibitors to help prevent fouling - thus promoting long operational life and high thermal efficiency.

Biodegradable: ThermaFlow DTX mixtures are readily biodegradable (90% over ten days) and will not remain in the environment or bio-accumulate.

Quality Assured: All Hydratech products are manufactured in accordance with certified ISO9001-2008 procedures



Physical Properties:

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

Density: 1.04 - 1.15 g/cm³

pH: 7.5 - 10.5 depending on inhibitors

Boiling Point: >100°C

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 minimize corrosion air ingress should be minimized. A pressurized system is best.

Determine the total system volume and add ThermaFlow DTX to the system according to the minimum operating temperature required (see table). The minimum dose of ThermaFlow DTX should not be less than 22% of the system volume and the maximum does not normally exceed 60%. We recommend the use of deionized, distilled or UltraPure™ water for this dilution. Avoid water containing high levels of calcium salts or Chlorides [Cl-].

Health & Safety: Please refer to the associated Safety Data Sheet. Available here:

[DTX-25 MSDS](#)

Shelf Life: >3 years when stored in sealed containers out of direct sunlight.



Available in: 25, 205 & 1000, liter containers and bulk tanks.



Diluting Concentrate:

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

Frost Protection °C	v/v of CoolFlow NTP	Refractive Index
-10	22%	1.356
-15	28%	1.362
-20	33%	1.367
-25	38%	1.372
-30	42%	1.376
-35	46%	1.380



Change log

Date of change	Change	Version
30-10-2019	New design	001