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# User Guide

## CoolFlo NTP-25

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### Propylene Glycol Antifreeze

Non Toxic Antifreeze and Secondary Refrigerant for process cooling & AC systems. Based on Propylene Glycol and ASTM D1384 proven Corrosion, Scale and Biological Inhibitors.



Antifreeze



Non-Toxic



Protection



Biodegradable



Quality Assured

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## Performance Properties

**CoolFlo NTP-25** has been especially formulated for use as a Non Toxic Secondary Refrigerant Antifreeze for use in Process Cooling, Refrigeration and Air Conditioning Systems.

**Antifreeze:** **CoolFlo NTP-25** is miscible with water in all proportions and can protect RAC systems down to -50°C depending on concentration. **CoolFlo NTP-25** exhibits super-cooling characteristics and mixtures containing in excess of 50% by volume do not freeze solid, alleviating any concern over possible expansion and burst damage.

**Non Toxic:** **CoolFlo NTP-25** has an LD50 toxicity rating (Oral Rat) of <sup>3</sup>15,000 mg/kg of body weight (bw) = "Relatively Harmless" as confirmed by the Hodge & Sterner Scale.

**Protection:** **CoolFlo NTP-25** 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.

**CoolFlo NTP-25** also contains scale and biological inhibitors to help prevent fouling - thus promoting long operational life and high thermal efficiency.

**Biodegradable:** **CoolFlo NTP-25** 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:**

**CoolFlo NTP-25** is a clear, slightly viscous liquid. It is mildly sweet to the taste and has a non-pungent but characteristic aroma.

Density: 1.02 - 1.15 g/cm<sup>3</sup> depending on inhibitors

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 **CoolFlo NTP-25** to the system according to the minimum operating temperature required (see table). The minimum dose of **CoolFlo NTP-25** should not be less than 25% 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:

[NTP-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 **CoolFlo NTP-25** 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	33%	1.364
-20	39%	1.370
-25	44%	1.373
-30	48%	1.380
-35	52,5%	1.383



## Change log

<b>Date of change</b>	<b>Change</b>	<b>Version</b>
30-10-2019	New design	001