



## DTX: High Efficiency Non Toxic Glycol Antifreeze



High efficiency non toxic Glycol Antifreeze and secondary refrigerant for Process Cooling & AC systems. Based on Ethylene Glycol blended with patented DeTox™ additive and ASTM D1384 proven corrosion, scale and biological inhibitors.

### Performance Properties

DTX: High Efficiency Non Toxic Glycol Antifreeze has been especially formulated for use in Refrigeration and HVAC 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 and cheaper per litre.



#### Antifreeze

DTX: High Efficiency Non Toxic Glycol Antifreeze is miscible with water in all proportions and can protect RAC systems down to -50 °C depending on concentration.



#### Non Toxic

DTX: High Efficiency Non Toxic Glycol Antifreeze is based on Ethylene Glycol. It has been tested and classified as Non Toxic by an EPA certified laboratory. Previously Propylene Glycol was the only non toxic Glycol available, however with the introduction of the patented DeTox™ additive that is no longer the case. DeTox™ prevents Ethylene Glycol from being metabolised (during digestion) into toxic by-products, which cause kidney failure, blindness and death. Tests carried out on DTX confirmed the toxicity was "so low that it was impossible to determine and LD50 value". The DeTox™ additive has very little effect on heat transfer or antifreeze performance. In fact similar volumes of DTX or Ethylene Glycol are required to achieve a specific freeze protection.



#### Optimum Flow

DTX: High Efficiency Non Toxic Glycol Antifreeze has improved heat transfer characteristics including lower dynamic viscosity and higher thermal conductivity. For a detailed comparison please refer to the Fluid Performance Chart which is available upon request.



#### Protection

DTX: High Efficiency Non Toxic Glycol Antifreeze 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. DTX: High Efficiency Non Toxic Glycol Antifreeze also contains scale and biological inhibitors to help prevent fouling - thus promoting long operational life and high thermal efficiency.



#### Biodegradable

DTX: High Efficiency Non Toxic Glycol Antifreeze mixtures are readily biodegradable (90% over 10 days) and will not remain in the environment or bio-accumulate.



#### Quality Assured

All BDIC Glycol products are manufactured in accordance with certified ISO 9001-2008 procedures.

For further information about this product please email: [info@bdicooling.com](mailto:info@bdicooling.com)





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## Physical Properties

DTX: High Efficiency Non Toxic Glycol Antifreeze is a clear, slightly viscous liquid and mildly sweet to the taste. It is non-pungent however it does have a characteristic aroma.

Density: 1.04 - 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 pipework systems should be clean and free from biological contamination and debris prior to commissioning. To minimise corrosion, air ingress should be minimised. A pressurised system is best.

Determine the total system volume and add DTX: High Efficiency Non Toxic Glycol Antifreeze to the system according to the minimum operating temperature required (see table to the right).

The minimum dose of DTX: High Efficiency Non Toxic Glycol Antifreeze should not be less than 22% 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-].

## Diluting Concentrate

When measuring the percentage concentration of DTX: High Efficiency Non Toxic Glycol Antifreeze in solution we recommend the use of a recently calibrated refractometer.

## Health & Safety

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

## Shelf Life

3 years when stored in sealed containers out of direct sunlight.

## Available in

25, 205 & 1000 Litre IBC's and bulk tankers.

DTX: High Efficiency Non Toxic Glycol Antifreeze can also be supplied as a ready-to-use solution.

Frost Protection °C	V/V of DTX: HE NT Glycol Antifreeze	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

## Support Services

BDIC strive to ensure end users and distributors receive the full benefit of working with a specialist supplier that offers:

- ▣ Expert Technical advice on all aspects of fluid selection, including Environmental impact Assessments, Thermal Performance etc.
- ▣ Fluid Maintenance Programs for the proactive verification of fluid and system condition.
- ▣ A vast stock inventory facilitating same day dispatch and delivery.
- ▣ Bespoke formulations for specialist applications.

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