

Castrol ON Primary Cooling Fluid DTX

Primary Cooling Loops

Description

Castrol ON: Primary Cooling Fluid DTX is a low-toxicity, glycol-based heat transfer fluid, formulated with synergistic inhibitors to protect against corrosion, biological activity and system fouling.

Application

Castrol ON: Primary Cooling Fluid DTX has been specifically formulated for use as a thermal fluid in data centre primary cooling systems.

Subject to dilution with deionised water, it is possible to achieve sub-zero freeze protection temperatures from -10°C to -50°C, as detailed in Table 1. Product can be supplied premixed as a ready-to-use solution.

Table 1 - Mixing Guide

Frost Protection °C	v/v of Coolflow DTX %	Refractive Index
-10°C	23	1.35705
-15°C	30	1.36445
-20°C	35	1.36972
-25°C	40	1.37498
-30°C	44	1.37916
-35°C	48	1.38331
-40°C	52	1.38744
-45°C	55	1.39051

In alignment with BSRIA BG29-2021 guidelines, it is recommended that new cooling and heating systems are flushed, sterilised and pacified prior to filling with a thermal fluid.

Advantages

- Improved COP, PUE and CUE values, compared with Propylene Glycol (PG) mixtures.
- Enhanced biostatic resistance to bacteria and algae.
- Increased thermal efficiency compared to PG.
- Exceeds ASTM D8039 and OCP corrosion standards.
- Lower dynamic and kinematic viscosity than PG.
- Incorporates patented detox additive and in accordance with EC GHS CLP 1272-2008 is not classified as toxic.
- Lower Prandtl number (value) compared to PG.



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Typical Characteristics

Name	Method	Units	Castrol ON Direct Liquid Cooling DTX
pH value	ASTM D1287	-	8-9
Freezing Point at 55%	ASTM D3321	°C	-45
Appearance	Visual	-	Clear and free from suspended matter
Colour	Visual	-	TBC
Glycol Content	ASTM D1287	-	95.63
Water & Inhibitors Content	ASTM D1287	-	4.37
Density @ 15°C	ASTM D4052	g/ml	1.0345
Density @ 50°C	ASTM D4052	g/ml	1.0131
Boiling Point	ASTM D1120	°C	-
Specific Heat @ 60°C (25% concentration)	ASTM E1269	kJ/kg.K	3.919
Thermal Conductivity @ 60°C (25% concentration)	ASTM D7896	W/mK	0.519

Container Sizes

Castrol ON: Primary Cooling Fluid DTX can be supplied in the following container sizes:

- 20-litre UN plastic drums. Max. of 50-no. 20L drums per pallet.
- 208-litres UN plastic drums. Max. of 4-no. 208L drums per pallet.
- 1000-litre UN Intermediate Bulk Containers
- 25,000-litre Tanker-truck loads

Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing conditions.



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DC Cooling Solutions - UK & Ireland distributor and support provider for Castrol ON data centre products

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