

Sentinel R500C

Concentrated heat-transfer fluid for Ground Source Heat Pumps

Features and Benefits

- Provides effective corrosion protection for system metals.
- Effective frost protection
- May be diluted with mains water
- Chemically & thermally stable components
- Resistant to degradation.
- Contains biocide
- Improved cost of operation of the Ground Source Heat Pump system
- Non-toxic and biodegradable

Properties

Sentinel R500C is a clear dark blue liquid concentrate based on propylene glycol. It has been designed for on-site dilution to yield a highly efficient thermal transfer fluid for ground source heat pump ground loop circuits.

The inhibitors contained in Sentinel R500C provide superior protection against both corrosion and deposits and protect the metals commonly found in heat collector circuits. Sentinel R500C prevents fouling of the surfaces of heat exchangers and maintains thermal efficiency. The product is especially formulated to resist degradation by biological organisms and so provide extended fluid life.

The efficient thermal transfer properties and superior stability of Sentinel R500C help towards reduced cost of system operation.

Description and Use

Sentinel R500C is designed for dilution and subsequent use in Ground Source Heat Pump equipment to provide frost protection and minimise corrosion and deposition.

Sentinel R500C is formulated to minimise biological growth that can occur during static conditions after the ground loop has been filled and before the system is commissioned. The presence of biological organisms may lead to the decomposition of the glycol. This process, which is indicated by darkening and thickening of the thermal fluid, will reduce both the thermal efficiency of the system and the lifetime of the fluid.

Before filling the ground loop, Sentinel R500C should be pre-diluted with towns mains water in a minimum ratio of 1 part Sentinel R500C to two parts water in order to ensure freeze protection down to at least -22°C. Sentinel R500C must not be mixed with other heat transfer fluids.

Chemical Composition

- Appearance clear, blue liquid
- Density (20 °C) 1.035 g/cm³
- pH value (33% in water) 8,5 (approx)

Materials Compatibility

Sentinel R500C does not attack the sealant materials normally used in Ground Source Heat Pump systems.

Packaging

Sentinel R500C is supplied in 20, 200, and 1000 litre non-returnable containers

Safety Precautions

The information provided overleaf enables compliance with the Control of Substances Hazardous to Health Regulations. A Safety Data Sheet is available upon request.

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Heat transfer fluid concentrate for Ground Source Heat Pump circuits	Propylene glycol containing corrosion inhibitors.
Health Hazards	Not considered hazardous to health.
Handling	Avoid contact with skin and eyes. Keep out of reach of children and animals. Wash out empty container thoroughly with water before disposal.
Storage	Keep container tightly closed. Store in cool, well ventilated area.
Spillage	Flush spillage with plenty of water and wash to waste.
Fire/Explosion Risks	Non-flammable
First Aid	Skin Exposure : Wash immediately with plenty of water. If irritation develops, seek medical attention. Eye Exposure : Flush immediately with plenty of running water. Keep eyelids apart. Seek medical advice. Ingestion : Rinse mouth with water. Do NOT induce vomiting! Seek medical advice.