

## SOLAR S1 CONCENTRATE

- **An inhibited heat transfer fluid for all solar thermal applications**
- **Frost protection to -28°C**
- **Volatile corrosion inhibitor for protection in gas and liquid phases**
- **Stable pH across the range of operational temperatures**
- **Compatible with all makes and models of solar panels**
- **Benchmarked against market leading products**
- **Dilute 1:1 before use**



Fernox Solar S1 Concentrate is a clear, orange liquid with a distinct, faint odour. It has been specifically formulated for use as a heat transfer fluid within solar thermal heating systems at elevated temperatures.

Fernox Solar S1 Concentrate employs volatile corrosion inhibitors that will protect the installation when the heat transfer fluid is in either a gaseous or liquid state at temperatures in excess of 180°C.

### Application

Fernox Solar S1 Concentrate is suitable for use within solar thermal installations that conform to BS EN 12976 and BS 5918.

Fernox Solar S1 Concentrate should be diluted in a ratio of 1:1 with mains water prior to use. If other heat transfer fluids have been previously used, drain the system completely, rinse with water and add Fernox Solar S1 Concentrate before filling.

<b>Concentration</b>	40%	45%	50%	55%
<b>Frost Protection</b>	-20°C	-24°C	-28°C	-33°C

Fernox Solar S1 Concentrate is suitable for use in solar applications with stagnation temperatures in excess of 360°C provided that the solar thermal system is correctly installed and dimensioned to allow the Fernox Solar S1 Concentrate to withdraw completely through vaporisation from the collectors when the maximum static temperature is reached. Temperatures in excess of 200°C causes slow degradation of the fluid which can lead to a reduction in product life.

### Corrosion Protection

The corrosion protection offered by Fernox Solar S1 Concentrate is equivalent to that provided by Fernox Protector F1 within central heating systems, for all metals commonly found within solar thermal installations.

### Compatibility with non-metallic's

Fernox Solar S1 Concentrate is compatible with all non-metallic materials commonly found in solar thermal installations.

## **Heat Transfer**

Fernox Solar S1 Concentrate has been benchmarked against other leading solar thermal heat transfer fluids and has shown to have excellent heat transfer properties.

<b>Composition:</b>	An aqueous solution of monopropylene glycol, and specifically formulated high temperature inhibitors
Appearance	Clear, orange liquid
SG at 20°C (conc.)	1.08
In use Refractive Index	1.381-1.385
pH (conc.)	10.1
In use Alkalinity	6,300 – 6,500 ppm as CaCO <sub>3</sub>
In use Viscosity (20°C)	8.5 – 8.7 cPs (Brookfield 100 rpm)
In use Boiling point	102 – 105°C
In use Flash point	None
In use Water content	55 – 58%
In use Freezing point	< -28°C

## **Packaging, Handling and Storage**

Fernox Solar S1 Concentrate is supplied in 5 and 10 litre sizes. The formulation should be diluted 1:1 prior to use.

Fernox Solar S1 Concentrate is classified as non-hazardous and non-irritant, but as with all chemicals, keep out of the reach of children. Do not take internally. In case of contact with eyes or skin, rinse immediately with plenty of water.

Refer to Fernox Solar S1 Concentrate Material Safety Data Sheet (MSDS) for further information.

### **Item numbers**

**5 Litre - 62080**

**10 Litre - 62081**