



# Ecologically and environmentally friendly non-toxic antifreeze. Based on refined vegetable extracts, blended with BS6580, proven corrosion, scale and biological inhibitors.

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product name

Globaltherm® ECO  
Low temperature fluid

### Company Information

Globaltherm, Cold Meece Estate, Cold Meece, Stone, Stafford, ST15 0SP, UK

### Emergency telephone

+44 (0) 1785 760555

### Web

www.globaltherm.org

## 2. PRODUCT DESCRIPTION

Globaltherm® ECO has been specifically formulated to provide Refrigeration and AC plant operators with a Secondary Refrigerant Antifreeze that is 100% RENEWABLE i.e not derived from non-renewable crude oil.

Globaltherm® ECO is based on sustainable Refined Vegetable Extracts that are Non-toxic, Bio-degradable and more thermally efficient than Propylene Glycol based coolants. Subsequently Globaltherm ECO® could be considered the most

ecologically friendly antifreeze available.

Globaltherm ECO® contains corrosion inhibitors to protect metals commonly found in cooling, refrigeration and air conditioning systems. It has been tested in accordance with BS5117 and found to meet BS6580 corrosion standards for mild and stainless steel, aluminium, copper, brass and cast iron. Zinc and galvanised components are not recommended for use with closed loop cooling or heating systems.



PRODUCT INFORMATION

Globaltherm® ECO contains scale and biological inhibitors to help prevent fouling - thus promoting long operational life and high thermal efficiency.

Globaltherm® ECO is miscible with water in all proportions and can protect RAC systems down to -50°C depending on concentration.

Globaltherm® ECO 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.

Globaltherm® ECO is a clear, slightly viscous liquid. It is slightly sweet to the taste and has a non-pungent, characteristic aroma.

Density: 1.02 - 1.26 g/cm<sub>3</sub>  
pH: 7.5 - 10.5 depending on inhibitors  
Boiling point: >100°C

**3. APPLICATION**

As per BSRIA guide AG 1/2001.1 all pipe-work systems should be clean and free from biological contamination prior to commissioning.

To minimise corrosion, air\* ingress and exposure should be minimized. A pressurised system is best.  
\*Oxygen feeds the corrosion process which consumes inhibitors.

Determine the total system volume and add Globaltherm® ECO to the system according to the minimum operating temperature required (see table). The minimum dose of Globaltherm® ECO should not be less than 25% of the system volume and the maximum does not normally exceed 60%. We recommend the use of de-ionised, distilled or UltraPure™ water for this dilution. Avoid water containing high levels of calcium salts or Chlorides [Cl-].

**4. MIXING GUIDE**

Frost Protection °C	% v/v of Globaltherm® ECO in the system	Refractive Index
-10°C	25%	1.355
-15°C	32%	1.362
-20°C	38%	1.367
-25°C	43%	1.372
-30°C	48%	1.377
-35°C	52%	1.380

Note: When measuring the percentage of Globaltherm ECO use a refractometer.

Health and Safety: Please refer to the associated Safety Data Sheet.  
Shelf Life: 1-3 years when stored in sealed containers out of direct sunlight.  
Available in: 5, 10, 15, 20, 25, 205, and 1,000 litre containers and bulk tankers.

Phone: +44 (0) 1785 760555; fax: +44 (0) 1785 760444 to ask about Thermocare® preventative maintenance programmes and fluid testing and analysis.