



## Secondary Refrigerant Antifreeze

Ecologically and Environmentally Friendly  
Non-Toxic Secondary Refrigerant Antifreeze.  
Based on Refined Vegetable Extracts and  
BS6580 & ASTM D1384 proven Corrosion,  
Scale and Biological Inhibitors.



Antifreeze



Non-Toxic



Renewable



Protection



Biodegradable



Quality Assured

## Performance Properties:

**CoolFlow ECO2** has been especially 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.

**Antifreeze:** **CoolFlow ECO2** is miscible with water in all proportions and can protect RAC systems down to  $-50^{\circ}\text{C}$  depending on concentration. **CoolFlow ECO2** 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.

**Non-Toxic:** **CoolFlow ECO2** is based on sustainable Refined Vegetable Extracts that are Non-Toxic, Bio-Degradable and more thermally efficient than Propylene Glycol based coolants. Subsequently **CoolFlow ECO2** could be considered the most ecologically friendly antifreeze available.

**Renewable:** **CoolFlow ECO2** is manufactured using a blend of refined vegetable extracts. I.E. they do not contain any crude oil derived or synthetic constituents

**Protection:** **CoolFlow ECO2** 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. **CoolFlow ECO2** also contains scale and biological inhibitors to help prevent fouling - thus promoting long operational life and high thermal efficiency.

**Biodegradable:** **CoolFlow ECO2** is capable of being decomposed into its constituent elements by natural processes. I.E. The product will not remain in the environment after it has been broken down. The approximate time of decomposition is detailed in the product Safety Data Sheet.

**Quality Assured:** All Hydratech products are manufactured in accordance with certified ISO9001-2008 procedures



**HYDRATECH**  
Specialist Fluid Solutions

[www.hydratech.co.uk](http://www.hydratech.co.uk)  
[info@hydratech.co.uk](mailto:info@hydratech.co.uk)  
Tel: 01792 572299

## Physical Properties:

**CoolFlow EC02** is a clear, slightly viscous liquid. It is slightly sweet to the taste and has a non-pungent but characteristic aroma.

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

## Application:

As per BSRIA guide BG 29/2012 all pipe-work 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 **CoolFlow EC02** to the system according to the minimum operating temperature required (see table, below). The minimum dose of **CoolFlow EC02** should not be less than 25% 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 **CoolFlow EC02** in solution we recommend the use of a recently calibrated refractometer.



**Health & Safety:** Please refer to the associated Safety Data Sheet. Available via Login or upon request.

**Shelf Life:** 1 year when stored in sealed containers out of direct sunlight.

**Available in:** 5, 10, 15, 20, 25, 205 & 1000 litre containers and bulk tankers.

**CoolFlow EC02** can also be supplied as a Ready-To-Use solution.

Frost Protection °C	v/v of CoolFlow EC02	Refractive Index
-10	25%	1.355
-15	32%	1.362
-20	38%	1.367
-25	43%	1.372
-30	48%	1.377
-35	52%	1.380



**SureFlow** Support Services ensure that end users and distributors receive the full benefit of working with a specialist manufacturer.

- Expert technical advice on all aspects of fluid selection, including Environmental Impact Assessments, Thermal Performance etc.
- Fluid Maintenance Program; for the proactive verification of fluid and system condition.
- Huge stock inventory facilitating same day dispatch and delivery.
- Bespoke formulations for specialist applications.

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