

ECO2: Vegetable Based Antifreeze

For Process Cooling & AC systems

Performance Properties

ECO2: Vegetable Based Antifreeze 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.

Non Toxic

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

Protection

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

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 ECO2 to the system according to the minimum operating temperature required (see table, below). The minimum dose of ECO2 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-]. ECO2 can also be supplied as a Ready-To-Use solution.

Diluting Concentrate

When measuring the percentage concentration of ECO2 in solution we recommend the use of a recently calibrated refractometer.

Frost Protection °C	v/v of ECO2 %	Refractive Index
-10	25.0	1.35750
-15	32.0	1.36450
-20	38.0	1.37000
-25	43.0	1.37450
-30	48.0	1.37900
-35	52.0	1.38250



Physical Properties

Frost Protection

-50°C depending on concentration.

Density

1.02 - 1.26g/cm³

pH

7.5 - 9.0 depending on inhibitors.

Boiling Point

>100°C

Characteristics

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

Biodegradability

ECO2 is capable of being decomposed in to 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.

Container Sizes

Available in: 5, 10, 25, 205L drums & 1000L IBCs.

Storage & Shelf Life

At least 3 years when stored in sealed containers, below 40°C and out of direct sunlight.

Health & Safety

Please refer to the associated Safety Data Sheet which is available on request.