



WET-Treat® 1014

Hardness Stabilizer and Dispersant for Cooling and Process Water Systems (Suitable pH Range: 7 - 10)

Scope of Application:

WET-Treat[®] **1014** is a hardness stabilizer, which has excellent dispersing properties in chemical cooling and process waters. **WET-Treat**[®] **1014** is used to prevent the harmful effects of high hardness and high sludge content in water cooling systems. **WET-Treat**[®] **1014** is a liquid blend of phosphonic acids, polycarboxylic acid and copper inhibitor.

Product Data:

WET-Treat[®] 1014 is a liquid blend product of phosphonic and polycarboxylic acids.

Appearance : Colorless, clear liquid.

pH (1% solution) :app. 2.5

Density (20°C/68°F) $:1.100 \pm 0.02 \text{ g/cm}^3$

Freezing Point :<0°C

Miscibility in water : Miscible with water at any ratio

Total P content (PO₄⁻³) : $8.5 \pm 0.5\%$

Effect on Environment: The product is non-volatile and non-flammable and has low phosphorus content and free of N. For further information please check the MSDS of the product.

Mode of Action:

WET-Treat[®] **1014** prevents the formation of crystals from water hardness by blocking crystal growth (Threshold Effect). Beyond the stabilization limit an amorphous precipitate is obtained which is dispersible and does not form a hard scale. It can be removed from the cooling system by normal blow-down.

WET-Treat[®] **1014** is suitable for the pH range from 7 to 10.

Dosage:

Dosing **WET-Treat**[®] **1014** depends on many factors such as concentration ratio, chloride content, temperature, hardness, sludge content, holding time index etc. and should be selected with Green Chemicals representative.





Recommended dosage: 5-30 ppm (g/m³) circulating water.

Application:

WET-Treat[®] **1014** is recommended to be used by diluting in certain ratios. The product should be added directly in proportion with the make-up water to the cooling tower basin. It can also be dosed from the suction side of the circulation pump.

WET-Treat[®] **1014** dosing equipments must have been made of PE or PVC materials.

Analysis:

The content of **WET-Treat**[®] **1014** in the cooling water is determined by PO_4^{-3} concentration. The determination of PO_4^{-3} content can be carried out after oxidative decomposition of the phosphonic acids.

PO₄⁻³ Analysis Method:

 $1 \text{ g/m}^3 \text{ WET-Treat}^{\$} 1014 = 0.085 \text{ g/m}^3 \text{ PO}_4^{-3}$

 $1 \text{ g/m}^3 \text{ PO}_4^{-3} = 11,76 \text{ g/m}^3 \text{ WET-Treat}^{\circ} 1014$

ISO 9001-14001:

Our quality system has been certified by TÜV-Thüringen on the basis of EN ISO 9001 and EN ISO 14001.

Packing:

Plastic canister of 60 kg / 200 kg plastic drums container

Transport and Storage:

The product must have been kept in original container and closed warehouse under room temperature. Please refer to the original MSDS for further information.