
WET-Treat[®] 4007

Oxygen Scavenger and Hardness Stabilizer for Boiler Water Conditioning

Scope of Application:

WET-Treat[®]4007 is liquid product used as oxygen scavenger and hardness stabilizer in boiler water and boiler feed waters. This product is used in boilers up to 40 bar of operation pressure. WET-Treat[®]4007 contains only non-volatile raw materials. Therefore, it can be used in systems with high purity demands. WET-Treat[®]4007 is based on raw materials that are listed in FDA § 173.310 as boiler water additives that may be safely used in preparation of steam that will contact food.

Product Data:

WET-Treat[®]4007 is a liquid product that is a blend of organic and inorganic phosphates, poly carboxylic acids and an oxygen scavenger.

Appearance : Clear, colorless to yellowish liquid.

pH (1% solution) : 7.0 ± 0.3

Density (20°C/68°F) : 1.200 ± 0.018 g/cm³

Freezing Point : <-5°C

Miscibility in water : Miscible with water at any ratio

Effect on Environment : Please check the MSDS of the product.

Mode of Action:

The stabilizing and dispersion power of WET-Treat[®]4007 prevents the formation of scale by locking 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 boiler system by normal blow-down. WET-Treat[®]4007 maintains corrosion inhibition by scavenging the content of oxygen in boiler water respectively boiler feed water by means of oxygen scavenging compounds.

Dosage:

The dosage of WET-Treat[®]4007 depends on several factors such as temperature of boiler feed water, concentration ratio, total hardness content and should be selected with Green Chemicals representative. Generally the PO₄⁻³ content in boiler water should be in the amount of 5-20 g/m³. The dosage of WET-Treat[®]4007 should be calculated to reach this value. If the boiler feed water temperature is <100°C, extra WET-Treat[®]4007 and WET-Treat[®]4010 should be fed. According to Food and Drug Administration (FDA § 173.310) the dosage of WET-Treat[®]4007 must be lower than 95 g/m³ boiler feed water.

Application:

WET-Treat[®]4007 is preferably added in diluted form. The product should be added by an automatic dosing system connected to the suction part of the boiler feed water pump. The quantity of dosing is proportional to the boiler feed water amount.

Analysis:

Standard PO₄⁻³ test method can be used for the concentration of WET-Treat[®]4007 in boiler.

$$1 \text{ g/m}^3 \text{ PO}_4^{-3} = 23 \text{ g/m}^3 \text{ WET-Treat}^{\text{®}}4007$$

For sulfite concentration, sulfite test kit can be used.

$$1 \text{ g/m}^3 \text{ SO}_3^{-2} = 10 \text{ g/m}^3 \text{ WET-Treat}^{\text{®}}4007$$

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.