

## Metaqua® 8140

### Corrosion and deposits inhibitor for hard and very hard water

#### APPLICATION

Metaqua® 8140 is a lime inhibitor that protects drinking water systems with a hardness of more than 2.5 mol/m<sup>3</sup> (TH > 250 ppm CaCO<sub>3</sub>) from corrosion.

#### SPECIFICATION

Metaqua® 8140 is a combined powder product made of special alkaline phosphates and alkaline silicates.

Form:	white powder
Density (20°C/68°F):	750 ± 50 kg/m <sup>3</sup>
pH (1% liquid):	10,9 ± 0,5
Solubility in water:	max 13 % @ 20°C/68°F
Total quantity of P (based on PO <sub>4</sub> <sup>3-</sup> ):	62 ± 3 % P <sub>2</sub> O <sub>5</sub> = PO <sub>4</sub> × 0,7473 P = PO <sub>4</sub> × 0,3261
Total quantity of SiO <sub>2</sub> (based on SiO <sub>2</sub> ):	11 ± 2 %

#### ENVIRONMENTAL IMPACT

Please read the safety data sheet.

#### ACTION PRINCIPLE

Metaqua® 8140 gradually stabilizes the water hardness and prevents lime scale formation in cold and hot water. At temperatures above 65°C/150°F, the level of protection against precipitation is reduced. Amorphous precipitation appears above the stabilisation limits. Metaqua® 8140 protects against corrosion, corrosive precipitation and "brown water" by covering heavy metal ions such as iron or manganese.

#### DOSAGE

The dosage depends on a large number of factors. The correct dosage of the product can be selected with the help of SOMIS specialists. Recommended concentration of the product is from 3 to 8 g/m<sup>3</sup>.

#### USAGE

Metaqua® 8140 is used as a 5-12% solution. The solution for dosing should be prepared from soft water. When using hard water, the solution may become cloudy, but this does not affect the effectiveness of the product. The solution containers prepared for dosing should be plastic or iron. It is recommended to use special mixing equipment. Metaqua® 8140 solution should be added using an automatic dosing system, which is adjustable depending on the amount of drinking water. All metering system equipment (containers, pumps, pipes) should be made of alkali-resistant materials. At large enterprises it is recommended to use specialized equipment for preparation of the dosing solution.

#### ANALYSIS

To determine the concentration of Metaqua® 8140, the usual methods of determination of the amount of phosphates are used (see the method of analysis of the amount of inorganic phosphates A7E), taking into account the concentration of PO<sub>4</sub><sup>3-</sup> before treatment.  
1 g/m<sup>3</sup> Metaqua® 8140 = 0.62 g/m<sup>3</sup> PO<sub>4</sub><sup>3-</sup>  
1 g/m<sup>3</sup> PO<sub>4</sub><sup>3-</sup> = 1.6 g/m<sup>3</sup> Metaqua® 8140.

#### PRECAUTIONS

Please read the safety data sheet.

#### SERTIFICATION

Our quality management system (ISO 9001:2008) and environmental management system (ISO 14001:2005) are DQS certified.