

Cetamine® F3100

An organic product for the protecting of cold and hot water closed systems, which do not contain aluminium

APPLICATION

Cetamine® F3100 is an organic product for the protecting of cold and hot water closed systems, which do not contain aluminium. The polyamines in the product form a protective film that creates a barrier between the oxygen dissolved in water and the metal surface, thus preventing corrosion and scale.

When using Cetamine® F3100 in closed pH systems, pH levels are maintained at 9.0 - 9.5, thus, due to the passivation process speed, corrosion of copper and carbon steel is stopped.

The amines in Cetamine® F3100 modify the crystalline chain of calcium carbonates to form an anti-corrosion coating. Copolymers stop the formation of calcining deposits.

SPECIFICATION

Cetamine® F3100 is a liquid product consisting of a specific copper inhibitor, polyamines (which create a film), polymers and neutral amines.

Form:	colorless/light yellow liquid
pH (1 % liquid):	11,4 ± 0,3
Density (20°C/68°F):	1,00 ± 0,03 g/cm ³
Ability to dissolve:	the product is not recommended to be diluted

IMPACT ON THE ENVIRONMENT

Please read the safety data sheet.

ACTION

During processing, polyamines form a mono-molecular film on the metal surface, which creates a barrier between water and metal. The film reduces by 90% the oxygen flow rate to the metal surface, thus reducing corrosion.

Protection against copper corrosion occurs due to the copper inhibitor existing in the product. Neutral amines and polyamines are used for complete system processing. Neutral amines, reacting with free CO₂, increase pH to the required value and increase the efficiency of polyamines.

In addition, the amine film changes the crystal chain of calcium carbonate, preventing it from attaching to the metal surface. The polymers, contained in Cetamine® F3100, reduce the settling of calcining deposits.

DOSAGE

It is normally recommended to use a dosage of 1 l/m³. The dosage depends on several system parameters: temperature and total hardness.

USAGE

The Cetamine® F3100 is sprayed directly into the circulation system.

The feed water is treated with automatic dosing system that regulates the product flow according to the water quantity supplied. All parts of the product feeding equipment must be made of alkali-resistant materials (e.g. PVC, PE).

The product is not compatible with Viton. Cetamine® F3100 should be used undiluted.

ANALYTIC CONTROL

The quantity of Cetamine® F3100 is determined according to the concentration of the amine film formed using the A17 Amin I (BK-Giulini) analysis or the Rose Bengale A18 method.

Polyamines are supported in amounts of at least 2 g/m³.

Sufficient dosage of Cetamine® F3100 should be checked with an additional pH level measurement. In this case, it should be between 9.0 and 9.5.

SAFETY

Please read the safety data sheet.