

Ferrofos® 8500

Corrosion inhibitor for comprehensive cooling water treatment (pH range from 8.0 to 9.0)

APPLICATION

Ferrofos® 8500 is recommended for the water treatment of cooling systems to prevent corrosion of steel, copper and copper alloys, deposits and contaminants in open recirculation systems of cooling water. The product can be used with pH range from 8.0 to 9.0.

SPECIFICATION

Ferrofos® 8500 is a liquid formula of phosphonic acids, polycarboxylic acid and copper inhibitor.

Form:	transparent brownish liquid
Density (20°C/68°F):	1,21 ± 0,02g/cm ³
pH (1% liquid):	1,7 ± 0,3
Freezing point:	below -5 °C
Viscosity:	< 30 mPa/s
Total P (based on PO ₄ ³⁻):	12,9 ± 0,5 %

ENVIRONMENTAL IMPACT

There is no zinc in the product.

Ferrofos® 8500 is neither volatile nor combustible.

Please read the safety data sheet.

ACTION

1. Ferrofos® 8500 prevents the formation of water hardness crystals by blocking crystal growth (*Threshold effect*). During stabilization, amorphous deposits break up, preventing the formation of deposits. The precipitation is then drained from the system into the drain.

2. Ferrofos® 8500 provides optimal inhibition of mild steel and copper alloy corrosion.

- Inhibition of mild steel corrosion, forming a protective layer, due to the synergistic effect of one of the phosphonic acids with Ca²⁺ ions.
- Secondary inhibition of corrosion is due to the high dispersing properties of phosphonic and polycarboxylic acids (preventing the formation of deposits and contaminants on metal surfaces).
- Inhibition of corrosion of copper alloys by forming a protective layer of copper inhibitor.

DOSAGE

The dosage depends on many factors, e.g. concentration coefficient, stiffness, total alkalinity, chloride content, temperature, half-time (curing index) and must be chosen with the help of SOMIS's experts. In the recirculation water of cooling systems, Ferrofos® 8500 concentration should be kept in the range from 30 to 50 g/m³.

USAGE

Ferrofos® 8500 should be used concentrated.

The product should be dosed continuously and proportionally to the amount of feed water using suitable dosing equipment.

All parts of the equipment intended to come into contact with the product must be made of acid-resistant material. It is best to use synthetic materials (PE, PVC).

The product should be added to the system at or before the highest mixing point.

ANALYTIC ANALYSIS

The concentration of Ferrofos® 8500 can be determined by the concentration of PO₄³⁻. It is necessary to pay attention to the amount of PO₄³⁻ in the feed water. The amount of PO₄³⁻ can only be determined after the oxidative decomposition of phosphonic acid.

Analytical method:

A2-organophosphate

1 g/m³ Ferrofos® 8500 = 0.129 g/m³ PO₄³⁻

1 g/m³ PO₄³⁻ = 7.8 g/m³ Ferrofos® 8500

SAFEGUARDS

Please read the safety data sheet. Product expiry date is shown on the packaging.