Innovative soliutions
for water treatment

Ferrofos® 8509

Corrosion inhibitor for the complete treatment of cooling systems (pH range from 8.2 to 9.0)

APPLICATION

Ferrofos® 8509 is used to treat water in cooling systems, to prevent corrosion of steel, copper and copper alloys, deposits and contaminants in open recirculation systems for cooling water.

SPECIFICATION

Ferrofos® 8509 is a liquid formula of phosphonic acids, polycarboxylic acid and copper inhibitor. Ferrofos® 8509 does not contain zinc. The product is neither volatile nor combustible.

Form:	transparent brownish liquid
Density (20°C/68°F):	1,16 ± 0,03g/cm^3
pH (1% liquid):	2,0 ± 0,3
Freezing point:	ниже -4°C
Viscosity:	< 30 mPa/s
Total P (based on PO_4^{3-}):	9,0 ± 0,4 %

ENVIRONMENTAL IMPACT

There is no zinc in the product. Ferrofos® 8509 is neither volatile nor combustible.
Please read the safety data sheet.

ACTION

1. Ferrofos® 8509 prevents the formation of water hardness crystals by blocking crystal growth (*Threshold effect*). During stabilization, amorphous sediments break up, preventing the formation of sediments. The precipitation is then drained from the system into the drain.

2. Ferrofos® 8509 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 copper alloy corrosion 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 ŠOMIS's experts.

USAGE

Ferrofos® 8509 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.

ANALYTIC ANALYSIS

The concentration of Ferrofos® 8509 can be determined by the concentration of $PO4^{3-}$. It is necessary to pay attention to the amount of $PO4^{3-}$ in the feed water. The amount of $PO4^{3-}$can only be determined after the oxidative decomposition of phosphonic acid.
Analytical method:
A2E-organophosphate
1 g/m^3 Ferrofos® 8509 = 0,09g/m^3 PO_4^{3-}
1 g/m^3 PO_4^{3-} = 11,1 g/m^3 Ferrofos® 8509

SAFEGUARDS

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

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