

Korrodex® 332

Corrosion inhibitor for the protection of closed cooling systems and heating systems containing aluminium alloys

APPLICATIONS

Korrodex® 332 is a corrosion inhibitor for closed cooling and heating systems with aluminium, steel and copper alloys. The product is effective at a pH range of 7.5 to 9.0. The product is compatible with antifreeze compounds such as ethylene glycol.

Korrodex® 332 is also suitable for use in closed cooling systems where low conductivity of cooling water is required.

DESCRIPTION

Korrodex® 332 consists of polycarboxylic acid, molybdate, amine inclusions and copper inhibitor.

Form:	From transparent to slightly cloudy yellowish liquid
Density (20°C/68°F):	1,10 ± 0,02 g/cm ³
pH (1% liquid):	8,4 ± 0,3
Freezing point:	below 5 °C
Viscosity:	< 30 mPa/s
MoO ₄ 2-:	7,3 ± 0,3%
Mo6-:	4,4 ± 0,2%
Electrical conductivity (deionized water):	1000 g/cm ³ : 135µS/cm 3000 g/cm ³ : 370 µS/cm 5000 g/cm ³ : 600µS/cm

ENVIRONMENTAL IMPACT

Korrodex® 332 is neither volatile nor combustible. Detailed information can be found in the safety data sheet.

ACTION

Korrodex® 332 effectively protects steel, aluminium and copper alloys from corrosion:

1. Reduces the corrosion of steel and aluminium by creating a protective film of molybdenum on their surface.

2. Inhibition of corrosion of copper and copper alloys occurs due to the creation of a protective multilayer film.
3. Protects against CaCO₃ precipitation due to the components of stabilization of hardness (stepped effect of phosphonic and polycarboxylic acids).

DOSAGE

In circulating water, the concentration of Korrodex® 332 should be the following:

- For heating systems: 5000 g/m³
- For closed cooling systems: 1000 - 3000 g/m³

USAGE

Korrodex® 332 is an alkaline product, so all parts of the system in contact with it must be made of alkali-resistant materials. Synthetic materials (PE or PVC) are suitable. The product should be introduced into the system at or before the highest mixing point. Korrodex® 332 has been tested and checked by TÜV Bayern (Germany).

ANALYTICAL ANALYSIS

The amount of Korrodex® 332 in the system can be determined by the concentration of MoO₄ 2-, i.e. the atomic absorption spectrometer (AAS):

1 g/cm³ Korrodex 332 = 0.073 g/cm³ MoO₄ 2-
1 g/cm³ MoO₄ 2- = 13.7 g/cm³ Korrodex® 332

The amount of molybdenum can be roughly determined using special analysis kits, e.g. Merckoquant Nr. 10049 Merck Corp., Darmstadt, Germany.

PRECAUTIONS

Please read safety data sheet.