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/cm³ |
| pH (1% liquid): | 8,4 ± 0,3 |
| Freezing point: | below 5 °C |
| Viscosity: | < 30 mPa/s |
| MoO₄²⁻: | 7,3 ± 0,3% |
| Mo₆⁻: | 4,4 ± 0,2% |
| Electrical conductivity (deionized water): | 1000 g/cm³: 135μS/cm 3000 g/cm³: 370 μS/cm 5000 g/cm³: 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 MoO₄²⁻, i.e. the atomic absorption spectrometer (AAS):
1 g/cm³ Korrodex 332 = 0.073 g/cm³ MoO₄²⁻
1 g/cm³ MoO₄²⁻ = 13.7 g/cm³ Korrodex® 332
The amount of molybdenum can be roughly determined using special analysis kits, e.g. Merckquant Nr. 10049 Merck Corp., Darmstadt, Germany.

PRECAUTIONS
Please read safety data sheet.