## Additin® RC 5428

**Water miscible additive**

### Type

<table>
<thead>
<tr>
<th>Type</th>
<th>Ashless anticorrosion additive</th>
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### Technical data*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composition</td>
<td>Arylsulfonamidocarboxylic acid</td>
</tr>
<tr>
<td>Appearance</td>
<td>white solid</td>
</tr>
<tr>
<td>Neutralisation No.</td>
<td>145 mg KOH/g</td>
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<tr>
<td>Melting point</td>
<td>approx. 105°C (220 F)</td>
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<tr>
<td>Active substance</td>
<td>approx. 75% weight</td>
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</tbody>
</table>

### Application

- Corrosion preventive for water soluble applications such as:
  - aqueous hydraulic fluids
  - metal working fluids, corrosion preventive emulsions
  - off shore lubricants
  - industrial cleaners
  - and water treatment processes etc.

Additin RC 5428 itself is not oil soluble and has limited water solubility. But alkali- or aminic salts of Additin RC 5428 are water-soluble.

Alkali salts of Additin RC 5428:
They are suitable as corrosion inhibitor systems for amine-free formulations.

Blends of Alkanolamines and Additin RC 5428:
Alkanolamine salts of Additin RC 5428 (MEA-, TEA-, DGA-, MIPA-, AMP-salts etc) are water-soluble showing good corrosion inhibition properties with cast iron and other ferrous alloys. In addition they do not lead to any discoulouration effects on aluminium. They function in mineral oil based concentrates as well as in mineral oil free, fully synthetic transparent solutions. Alkanolamine salts of Additin RC 5428 are shear stable and hard water resistant (no build up of water insoluble Ca-/ Mg- soaps) and therefore ideally suited for water based hydraulic systems, off shore lubricants and water based coolants. They have no tendency to form sticky residues, which is a positive aspect for industrial cleaners. Furthermore they demonstrate the superior temperature stability necessary for waterbased quenching fluids.

Additin RC 5428 is odourless and therefore an ideal additive chemistry for critical processes, such as cutting or grinding where smell could be a problem. Should there be any tendency to foam then slight variations in the specific recipe and / or small additions of defoamers should rectify the problem.

Corrosion protection properties:
A 'Blend' of 42 wt-% Additin RC 5428 and 58 wt-% Triethanolamine after 2h stirred at 70°C (158 F):

- Herbert-steel plate test (IP 125) with DIN-water (20°dH=178pm CaCO3): 1% of the Blend shows S0/R0 (no black colour, no rust)

*Technical data valid until the expiration date on the container, the portion used and the working conditions.
Filter chip test (IP 287) with DIN-water: 2.5% of the Blend shows corrosion degree 0

Further attributes of Additin RC 5428:
- no labelling requirements
- biodegradable
- non-toxic and not harmful to the environment
- no built up of toxicological metabolites
- not nitrosable on account of its “betaine-structure”
- non-dusting solid material
- easy handling of the 25 kg PE-bags.

**Solubility**
In alkali bases and in amines.

**Test results**
-

**Packing unit**
25 kg PE-bag

**Storage conditions**
In closed original PE-bag at ambient temperature approx. 12 months

**Handling**
Consult material safety data sheet (MSDS) for additional handling information on Additin RC 5428

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