**KATHON™ 910 SB Biocide**  
Biocide for Silicone Sealants

**Description**

KATHON 910 SB biocide has been specifically designed to meet the requirements for use in acetoxy silicone sealants, the active ingredient, 4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one (DCOIT), shows excellent efficacy against fungi and bacteria under the standard ISO 846 method B test conditions including *Aspergillus*, *Alternaria* and *Candida* species and accelerated leaching. Due to the very low solubility of DCOIT, the leaching from silicone sealants is minimal and long term protection is provided.

Broad spectrum efficacy, low leaching and rapid degradation of the very low concentrations of the active ingredient released into the environment during performance and easy incorporation into the sealant render this product a unique solution for the fungicidal protection of silicone sealants.

KATHON 910 SB does not contain any metals or arsenic compounds.

As part of Rohm and Haas’ commitment to Responsible Care, extensive toxicological studies have been performed, showing that the active ingredient is non-mutagenic and non-teratogenic.

Another product based on the same active ingredient, SEA-NINE™ 211, is used for Marine Anti Fouling Paints and has received the EPA Green Challenge Award for environmental friendly chemistry, based on the fact that the degradation products have been identified as non-toxic, non-cumulating simple organic acid derivate.

A complete risk assessment on the solvent shows that this is also non-toxic and biodegradable at use/release concentrations.

**Chemical and Physical Properties**

The active ingredient is:

4,5-dichloro-2-n-octyl-4-isothiazolin-3-one (DCOIT)  
CAS Reg. N°: 64359-81-5 EINECS: 2648438

![Chemical structure of 4,5-dichloro-2-n-octyl-4-isothiazolin-3-one (DCOIT)](image)

Vapour pressure (mm Hg, 25°C)  \(7.4 \times 10^{-6}\)

**Typical Properties**  
These properties are typical but do not constitute specifications.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total active ingredient</td>
<td>9.5%</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear water white to pale yellow liquid</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>Approx. 0.9 g/cm³</td>
</tr>
<tr>
<td>Boiling point (solvent)</td>
<td>&gt;280°C</td>
</tr>
<tr>
<td>Flash point (solvent)</td>
<td>&gt;140°C</td>
</tr>
<tr>
<td>Refractivity nD₂₀</td>
<td>1.4890</td>
</tr>
<tr>
<td>Viscosity (Brookfield)</td>
<td>Approx. 10 mPas</td>
</tr>
</tbody>
</table>
Miscibility/Solubility

KATHON 910 SB is miscible with a variety of non-polar solvents.

KATHON 910 SB is non-miscible with water. The solubility of the active ingredient in water is <10 ppm.

Directions for Use

KATHON 910 SB biocide is a liquid product and is dosed either using automated metering systems or by hand-weighing. To ensure adequate mixing add the biocide at the compounding stage of the silicone sealant.

KATHON 910 SB should be dosed in the range of 1 kg - 10 kg as supplied for a one tonne batch, which is equivalent to 100 ppm to 1000 ppm active ingredient.

Basic Toxicological Information

LD$_{50}$ (rat, oral): 2600 mg/kg (female); 4400 mg/kg (male):

- is not a mutagen
- is not a teratogen
- is a potential sensitizer

Handling and Storage

Please refer to the safety data sheet for further detail on this product and for precise handling instructions.

KATHON 910 SB can easily be incorporated into the sealant at the compounding stage. Due to the biocidal nature of the product, protective clothing is to be worn while handling the product.

Any handling or use that could create aerosols is to be avoided.

The processing and use of industrial chemicals require adequate technical and professional knowledge.

In general, avoid eye and skin contact, wear safety goggles, gloves and protective clothing. In case of eye or skin contact despite precautionary measures, wash immediately and thoroughly with plenty of warm water and obtain medical attention.

The legal requirements prevailing in your country, especially on working hygiene and in the avoidance of accidents, must be observed.

Packaging Information

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Net Weight</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returnable Containers</td>
<td>1053 kg</td>
<td>Treated Polyethylene</td>
</tr>
<tr>
<td>Drums</td>
<td>175 kg</td>
<td>Treated Polyethylene</td>
</tr>
<tr>
<td>Pails</td>
<td>20 kg</td>
<td>Treated Polyethylene</td>
</tr>
</tbody>
</table>

The information presented in this bulletin is intended to help you to evaluate KATHON 910 SB. For further information or technical assistance, please contact your Dow Representative.

Biocidal Products Directive Compliance

KATHON 910 SB is a biocidal product intended for use in accordance with Product Type 7 (Film Preservation) and Product Type 9 (polymerised materials preservatives) of the EU Biocidal Product Directive 98/8/EC (BPD).

Caution

Use biocides safely. Always read the label and product safety data sheet before use.
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