KATHON LX 1.5% Biocide
EPA-Registered Biocide
EPA Reg. No. 707-134

General Description
KATHON™ LX 1.5% Biocide is a highly effective microbicidal recommended as a preservative for latex paints, aqueous industrial coatings, polymer latices, adhesives, tackifiers, dispersed pigments including kaolin clays, titanium dioxide, calcium carbonate, and building materials such as caulks, grouts, and joint cements. It offers effective, broad-spectrum protection against both bacteria and fungi (yeast and mold) during manufacture and storage. KATHON LX 1.5% is a wet-state preservative. It does not offer dry-film protection against fungi or algae.

Regional Product Availability
- United States and Canada
- Mexico, Latin America, South America

Composition
- 1.5% 5-Chloro-2-methyl-4-isothiazolin-3-one (CMIT) and 2-Methyl-4-isothiazolin-3-one (MIT)
- 95-97% Water

Physical Properties
The following are typical properties of KATHON™ LX 1.5% Biocide; they are not to be considered product specifications.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Light blue to light green liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild, aromatic</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.02</td>
</tr>
<tr>
<td>Density, lbs. per gallon</td>
<td>8.4</td>
</tr>
<tr>
<td>pH</td>
<td>2-4</td>
</tr>
<tr>
<td>Viscosity, cps at 25°C</td>
<td>3.000</td>
</tr>
<tr>
<td>Miscibility</td>
<td>Miscible with: water, methanol, ethanol, isopropyl alcohol, acetic acid. Immiscible with: acetone.</td>
</tr>
</tbody>
</table>

Active Ingredients
- 5-Chloro-2-methyl-4-isothiazolin-3-one 1.15% min
- 2-Methyl-4-isothiazolin-3-one 0.35% min
- Minimum value 1.50%

Inert Ingredients (Approximate Values)
- Magnesium nitrate 3.0% max
- Magnesium chloride 1.0-1.2%
Applications and Directions for Use

KATHON™ LX 1.5% Biocide is supplied as a liquid, which can be readily incorporated during paint formulation. The actual required concentration of preservative depends on several factors including: the particular product to be preserved, the expected frequency of repeated microbial contamination, the microbial susceptibility of the raw materials in the product, industrial hygiene during the manufacturing process, and the necessary level of protection. To ensure uniform distribution of the preservative, treat product (example: paint) while using adequate agitation for full incorporation of KATHON LX 1.5%.

The table below lists the end use applications for KATHON LX 1.5% in the United States and Canada. Note: Concentrations are written as parts per million (ppm) KATHON LX 1.5% products, as supplied. A dosage of 1,000 ppm is equivalent to 0.10%. Consult the product label for dosing instructions.

<table>
<thead>
<tr>
<th>End Use Application</th>
<th>United States EPA</th>
<th>Canada PMRA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
<td>Maximum</td>
</tr>
<tr>
<td>Polymer latex</td>
<td>425 ppm</td>
<td>3350 ppm</td>
</tr>
<tr>
<td>Adhesives</td>
<td>425 ppm</td>
<td>1675 ppm</td>
</tr>
<tr>
<td>Tackifiers</td>
<td>425 ppm</td>
<td>1675 ppm</td>
</tr>
<tr>
<td>Building materials</td>
<td>425 ppm</td>
<td>1675 ppm</td>
</tr>
<tr>
<td>Dispersed pigments</td>
<td>425 ppm</td>
<td>1675 ppm</td>
</tr>
<tr>
<td>Paints and Coatings</td>
<td>425 ppm</td>
<td>1675 ppm</td>
</tr>
<tr>
<td>Commercial photoprocessing systems</td>
<td>250 ppm</td>
<td>500 ppm</td>
</tr>
<tr>
<td>Metal cleaning fluid</td>
<td>425 ppm</td>
<td>1675 ppm</td>
</tr>
</tbody>
</table>

The table below lists the materials of compatibility for KATHON LX 1.5%. Testing was conducted from ambient temperatures up to 40°C.

<table>
<thead>
<tr>
<th>Metals</th>
<th>Plastics</th>
<th>Elastomers</th>
<th>Fiberglass Reinforced Polyester &amp; Coatings</th>
</tr>
</thead>
<tbody>
<tr>
<td>316L SS</td>
<td>High Density Polyethylene (HDPE)</td>
<td>Viton</td>
<td>Polyester (Atlac 382)</td>
</tr>
<tr>
<td>Alloy C-276</td>
<td>FL-High Density Polyethylene (FL-HDPE)</td>
<td></td>
<td>Vinyl ester (Derakane 411)</td>
</tr>
<tr>
<td>Alloy 20</td>
<td>Kynar</td>
<td></td>
<td>Furan (Hetron 800)</td>
</tr>
<tr>
<td>Titanium</td>
<td>Polypropylene</td>
<td></td>
<td>Vinyl Ester (Plasite 4300)</td>
</tr>
<tr>
<td></td>
<td>Teflon</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### NOT Compatible

<table>
<thead>
<tr>
<th>Metals</th>
<th>Plastics</th>
<th>Elastomers</th>
<th>Fiberglass Reinforced Polyester &amp; Coatings</th>
</tr>
</thead>
<tbody>
<tr>
<td>304 SS</td>
<td>Low Density Polyethylene (LDPE)</td>
<td>Butyl Rubber</td>
<td>Low bake epoxy (Plasite 9570)</td>
</tr>
<tr>
<td>304L SS</td>
<td>Poly Vinyl Chloride (PVC)</td>
<td>Buna N</td>
<td></td>
</tr>
<tr>
<td>316 SS</td>
<td></td>
<td>Buna S</td>
<td></td>
</tr>
<tr>
<td>316-Ti SS</td>
<td></td>
<td>EPDM/Nordel</td>
<td></td>
</tr>
<tr>
<td>Carbon Steel</td>
<td></td>
<td>Neoprene</td>
<td></td>
</tr>
<tr>
<td>Monel 400</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminium</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Handling Precautions

Before using this product, consult the Material Safety Data Sheet (MSDS)/Safety Data Sheet (SDS) for details on product hazards, recommended handling precautions and product storage.

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.

### Storage

For **optimal** product shelf life, store between 20-25°C. Do not store below 1°C (34°F) or above 55°C (131°F).

KATHON™ LX 1.5% Biocide should be stored in closed original containers at ambient temperature protected from direct heat.

If the product does freeze, allow it to return to room temperature and it will return to a liquid state again and can be used, after homogeneous stirring, without any loss of effectiveness. Bioactivity is unaffected by freezing and thawing.

KATHON LX 1.5% in original containers under appropriate storage conditions will have a shelf life of 547 days (~1.5 years).

### Disposal Considerations

Dispose of in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner. It is the user’s responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations.
Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products — from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Advanced Sustainable Microbial Control

Dow is a proven global leader that is fearlessly committed to Advanced Sustainable Microbial Control - developing enabling and necessary chemistries that do their job effectively and then go away, without harming human health or the environment.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including Safety Data Sheets (SDS), should be consulted prior to use of Dow products. Current Safety Data Sheets are available from Dow.

For further information, please contact your Dow representative, visit our website: www.dowmicrobialcontrol.com, or call:

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