Oakite® 12

Non soap lubricant for metalworking operations; also used as a conveyor chain lubricant because of its high tolerance for acid spillage.

PRIMARY APPLICATION

Oakite 12 is a non-soap lubricant used during many metalworking operations including light-duty stamping, forming and drawing. It also finds wide application in food industry plants as a conveyor chain lubricant. Unlike soap-type materials, Oakite 12 displays a high tolerance for acid spillage, brine contamination and hard water. In addition, it may be used as a general maintenance cleaner.

Oakite 12 contains no pigments or oils, gives off no objectionable fumes, has no flash point and is mild on skin. It is often used as a liquid hand cleaner. Oakite 12 is authorized by the USDA for use in federally inspected meat and poultry plants.

CHEMICAL CHARACTERISTICS

- chemical composition: contains nonionic surface active agents
- physical form: as received: yellowish-green liquid
- as used: yellowish-green solution
- odor: none
- specific gravity (approx.): 1.002 at 20° (68°F)
- bulk density: 1002 g/l (8.3 lb./gal)
- viscosity: 100-200 cps, Brookfield Spindle 1, 30 rpm
- flash point: none
- hygroscopic tendency: none
- foaming tendency: moderate
- recommended diluent: water
- maximum solubility: complete
- behavior in hard water: good
- rinsability: precipitates
- biodegradable surfactants: yes
- phosphate-free: yes
- normal working concentrations: 1/4% by volume to full strength (depending upon operation)
- normal operating temperatures: room temperature to 60°C (140°F)
- pH at working concentrations: 9.4 to 9.5
- effect of working solutions on metals:

<table>
<thead>
<tr>
<th>metal (alloy)</th>
<th>mm/yr</th>
<th>in/yr</th>
</tr>
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<tbody>
<tr>
<td>steel</td>
<td>0.00</td>
<td>0.000</td>
</tr>
<tr>
<td>stainless steel</td>
<td>0.00</td>
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</tr>
<tr>
<td></td>
<td>Oakite 12</td>
<td>Oakite 12</td>
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<td>----------</td>
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<tr>
<td>brass</td>
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<td>0.001</td>
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<tr>
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<tr>
<td>zinc</td>
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<td>0.016</td>
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</table>

**APPLICATION PROCEDURE**

**For Metalworking Operation**
OAKITE 12 is used from 5% by volume with water to full strength concentrations, depending upon the severity of the operation. Apply by dip, brush, roller or spray, at room temperature - 10° to 38°C, (50° to 100°F)

**For Chain Lubrication**
OAKITE 12 is used between 1/2 and 2% by volume with water, at room temperature - 10° to 38°C, (50° to 100°F). It can be applied by roller, drip tank or through units like the Chemetall Crownco Proportioner with mixing chamber which delivers solution to as many as 300 pre-determined points.

**For General Maintenance Cleaning**
Apply OAKITE 12, 1% by volume with water, approximately 60°C (140°F) by dipping, brushing or spraying.

**As Liquid Hand Cleaner**
Use OAKITE 12 between 1/4 and 1/2% by volume with water.

**Solution Control:** Concentrations may be titrated using Gardotest Procedure 126.
Sample Size: 5.0 mls Factor: 4.8

**EQUIPMENT**

The Chemetall Americas water driven Proportioners can be used to automatically feed the premixed solution of this product to the process tanks, conveyors and CIP/COP tanks. Please contact the Chemetall Americas Process Equipment and Engineering Department for specific recommendations.

**NOTES ON USE** *(See Material Safety Data Sheet)*

**SAFETY AND HANDLING**

Prior to handling and use of any of the materials referenced in this document, the Material Safety Data Sheets should be read and understood by all personnel in contact with these materials.

**KEEP OUT OF REACH OF CHILDREN**

**STORAGE**

Dry indoor storage at temperatures between 40°F and 100°F (4.4°C and 37.8°C) is recommended, away from any incompatible materials referenced in the Material Safety Data Sheets. All containers should be tightly closed when not in use.
**DISPOSAL**

Any disposal of the materials referenced in this document should be in accordance with all applicable federal, state, providential and local regulations. The process solution can contain components other than those present in the materials as supplied. Analysis of process solutions may be required prior to disposal.