Oakite® Sanitizer 1
Quaternary ammonium germicide disinfectant for all purpose sanitizing, control of mold and algae.
EPA Reg. No. 1020-1

PRIMARY APPLICATION

Oakite Sanitizer 1 is a liquid germicide disinfectant for sanitizing and deodorizing food processing and pharmaceutical plants. A quaternary ammonium compound, it combines fast killing action with excellent residual bacteriostatic protection. Oakite Sanitizer 1 is effective on a wide range of bacteria, fungi, mold, and other disease causing pathogens such as staphylococcus, Streptococcus and escherichiacoli. Sanitizer 1 does not require a potable water rinse when used at concentrations up to 200 ppm.

Oakite Sanitizer 1 contains ingredients acceptable to the FDA and is authorized by the USDA for use in federally inspected meat and poultry plants.

CHEMICAL CHARACTERISTICS

- chemical composition: alkyl dimethyl benzyl ammonium chloride
- physical form: concentrate: light yellow, as used: clear solution
- specific gravity (approx.): 0.987 at 20°C (68°F)
- bulk density: 987 g/l (8.2 lb/gal)
- viscosity: 4 cps, Brookfield Spindle 1, 60 rpm at 27°C (80°F)
- flash point: none
- foaming tendency: moderate when circulated; high when sprayed
- recommended diluent: water
- maximum solubility: completely miscible in cold or hot water
- behavior in hard water: unaffected
- rinsability: good
- biodegradable surfactants: yes
- phosphate-free: yes
- normal working concentrations: 1 fl. oz/8 gals of water
- normal working temperatures: 21° to 71° (70° to 160°F)
- pH at working concentrations: 7-9 depending on alkalinity of water
- effect of prolonged boiling: some loss of sanitizing properties
effect of working solutions on metals ...........................
rate of metal loss from 24-hour immersion in a
200 ppm solution of Oakite Sanitizer 1 at 38°C
(100°F), projected for one year, is as follows:

<table>
<thead>
<tr>
<th>metal (alloy)</th>
<th>mm/yr</th>
<th>in/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>stainless steel (316)</td>
<td>0.00</td>
<td>0.000</td>
</tr>
<tr>
<td>steel (1010)</td>
<td>0.07</td>
<td>0.003</td>
</tr>
<tr>
<td>aluminum (2024)</td>
<td>0.06</td>
<td>0.002</td>
</tr>
<tr>
<td>aluminum (3003)</td>
<td>0.07</td>
<td>0.003</td>
</tr>
<tr>
<td>brass</td>
<td>0.01</td>
<td>0.000</td>
</tr>
<tr>
<td>copper</td>
<td>0.00</td>
<td>0.000</td>
</tr>
</tbody>
</table>

APPLICATION PROCEDURE

**Directions:** Thoroughly clean and rinse all surfaces before applying this solution for sanitizing or germicidal treatment. Prepare a fresh solution daily or when use solution becomes visibly dirty.

**General Disinfection:** For walls, floors, equipment, other hard nonporous inanimate surfaces. After proper cleaning, apply Oakite Sanitizer 1 by mop, brush or by flooding areas to be treated. Treated surfaces must remain wet for 10 minutes. Prepare solution by adding 1 fluid ounce (about 2 tablespoons) of Oakite Sanitizer 1 to 4 gallons of water. May be used in cold, warm and hot water. Disinfection more rapid with warm or hot water.

**Dairy Farms, Milk Plants:** For sanitizing milking machines and rubber parts, pails, strainers, separators, sanitary piping, coolers, pasteurizing equipment, etc. After proper cleaning of equipment, sanitize with solution of Oakite Sanitizer 1. Apply by circulating, flooding or spraying 1/4 fluid oz. to 2 gallons of water, which approximates 200 ppm (1 to 5000).

**Note:** Do not use with soap or anionic detergents.

**Sanitizing, Mold Control:** For general sanitizing in bakeries, food and bottling plants a solution containing 1/2 fluid oz. to 4 gallons of water is applied by spraying or wiping previously cleaned surfaces until they are moist. Solution must have at least one minute contact time. Residual solution will control mold and yeast growth on hard, smooth surfaces such as metal or tile, as well as on painted walls and ceilings. Application should be repeated every 7 days or as necessary depending on the severity of the mold problem.

**Algae:** To control algae in previously cleaned circulating water systems, apply an initial slug addition of Oakite Sanitizer 1 at the rate of 13-26 fluid oz/per 1000 gal of water in the system (20-40 ppm active) ingredients. Subsequent slug additions of 4-8 oz of Oakite Sanitizer 1 per 1000 gal of water (6-12 ppm) should be applied every 2 to 5 days or as needed depending on the volume of bleed-off and the severity of the algae problem. Additions should be introduced gradually into the sump of the water cooling tower.

**Sanitizing food eggs:** To sanitize previously cleaned food grade eggs in shell egg and egg product processing plants, spray with 1-1/4 oz Oakite Sanitizer 1 in 10 gallons of water (200 ppm active). The solution should be warmer than the eggs, but not to exceed 130°F. Wet eggs thoroughly and allow to drain. Eggs sanitized with this product shall be subjected to a potable water rinse only if they are to be immediately broken for use in the manufacture of egg products. Eggs should be reasonably dry before casing or breaking. The solution should not be reused for sanitizing eggs.

**Restaurants, Luncheon Counters and Taverns:** For sanitizing glasses, dishes, utensils. Destroys many disease-producing bacteria. After proper cleaning, apply solution of Oakite Sanitizer 1 (1/2-fluid ounce per 4 gallons of water). Allow to drain thoroughly before reuse.
This product fulfills the criteria of Appendix F of the Grade "A" Pasteurized Milk Ordinance 1965 Recommendations of the U.S. Public Health Service in waters up to 550 ppm of hardness calculated as CaCO₃ when tested by the A.O.A.C. Germicidal and Detergent Sanitizers-Official Method.

**SOLUTION CONTROL:** To determine concentration of active ingredient (quat.), use Gardotest Procedure 93. (See Procedure)

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

**Safety and Handling Precautions:** Direct contact causes eye damage and skin irritation. Avoid contact with skin, eyes and clothing. When handling, wear safety goggles or face shield and rubber gloves. Harmful or fatal if swallowed. Avoid contamination of food.

**First Aid in Case of Contact:** Immediately flush eyes or skin with plenty of water for at least 15 minutes. For *eyes*, get medical attention; for *skin*, remove and wash clothing before reuse. If *swallowed*, promptly drink a large quantity of water. Avoid alcohol. Call a physician immediately.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsion may be needed.

**KEEP OUT OF REACT OF CHILDREN**

**DISPOSAL**

Dispose of according to all federal, state and local regulations.

**SHIPMENT**

May be shipped by any common carrier. Freight classification is "Cleaning Compound, NOI, Liquid". Product Code No. 5080.

**STORAGE**

Suitable for general indoor storage. Keep container closed when not in use. Keep from freezing.

- effect of high temperature storage ...................... slight pressure may build up
- effect of low temperature storage ........................ will freeze at 0°C (32°F), contents may be restored by thawing
- effect of aging.......................................................none

Oakite Products, Inc. warrants that the product or products described herein will conform with its published specifications. The products supplied by Oakite and information related to them are intended for use by buyers having necessary industrial skill and knowledge. Buyers should undertake sufficient verification and testing to determine the suitability of the Oakite materials for their own particular purpose. Since buyer's conditions of use of products are beyond Oakite's control, Oakite does not warrant any recommendations and information for the use of such products. OAKITE DISCLAIMS ALL OTHER WARRANTIES INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE IN CONNECTION WITH THE USE OF ITS PRODUCTS.