O-SYL

DISINFECTANT • DETERGENT

HOW TO USE HOSPITAL TYPE

D-SYL

DISINFECTANT • DETERGENT

O-SYL IS IN CONCENTRATED FORM. DILUTE ACCORDING TO DIRECTIONS.

ONE TABLESPOON EQUALS ABOUT ½ FLUID OUNCE OR 15 CC.

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>Correct Solution</th>
<th>Strength</th>
<th>0-SYL</th>
<th>WATER</th>
</tr>
</thead>
</table>

| For Germicidal Cleaning and Deodorizing: (Including premises occupied by tubercular patients) | 0.78% | 1 quart | 0.78% | 1 quart |
| Furniture, food and linen carts. | 0.78% | 5 oz. | 0.78% | 5 oz. |
| See brochure for detailed instructions. | | | |

FIRST AID:

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. For eyes, call a physician. Remove and wash contaminated clothing before reuse.

If swallowed, drink promptly a large quantity of milk, egg whites, or gelatin solution. If these are not available drink large quantities of water. Avoid alcohol. Call a physician immediately.

Delivered by Xerox

NET CONTENTS ONE GALLON

NATIONAL LABORATORIES
LEHN & FINK INDUSTRIAL PRODUCTS DIVISION
of Sterling Drug Inc.
Montvale, N.J. 07645
Plant: Toledo, Ohio 43612

AB-8062
DISINFECTANT • DETERGENT

GERMICIDAL* • Staphylocidal • Pseudomonacidal • Tuberculocidal
FUNGICIDAL* (Against pathogenic fungi)
VIRUCIDAL* (Against Influenza A, Herpes simplex, Vaccinia, and Adenovirus Type 2)

*On Environmental Surfaces

ACTIVE INGREDIENTS: o-Phenylphenol 5.00%, o-Benzyl-p-chlorophenol 4.50%, Tetrasodium Ethylene Diamine Tetraacetate 3.04%, Isopropyl Alcohol 1.50%, p-tert-Amylphenol 1.00%.

INERT INGREDIENTS: 84.96%.

EPA Registration No. 675-24-AA

DANGER: KEEP OUT OF REACH OF CHILDREN
Corrosive. Causes eye damage and skin irritation. Do not get in eyes, on skin or on clothing. Protect eyes and skin when handling concentrate. Harmful or fatal if swallowed. Avoid contamination of food. Rinse empty container thoroughly with water and discard it.

See First Aid statement and other precautions on side panel.

NET CONTENTS ONE GALLON

NATIONAL LABORATORIES
LEHN & FINK INDUSTRIAL PRODUCTS DIVISION
of Sterling Drug Inc.
Mooseville, N.J. 07645 Plant: Toledo, Ohio 43612
DISINFECTANT-DETERGENT
A Combination Cleaner and Disinfectant with Broad-Spectrum Antimicrobial Activity

Another of National Laboratories’ family of hospital disinfectants and disinfectant detergents

Lehn & Fink Industrial Products Division of Sterling Drug Inc.
America’s foremost manufacturer of disinfectants and disinfectant-detergents for environmental sanitation
O-SYL destroys a wide variety of pathogenic organisms, on environmental surfaces, such as Staphylococcus aureus, Pseudomonas aeruginosa, Proteus vulgaris, Candida albicans, and Mycobacterium tuberculosis at a use-dilution of 1:128. It is also viricidal, against such common viruses as Influenza A, Herpes, and Adenovirus Type 2.

This phenolic disinfectant-detergent can be used for general disinfecting and cleaning the entire hospital — floors, walls, fixtures, thermostats and surgical and dental instruments. Because O-SYL is effective in the presence of organic matter, it is useful for disinfecting areas or articles contaminated by purulent material, blood, serum or excreta, even when the pathogen is the tubercle bacillus. Another major advantage is the low surface tension of O-SYL, which ensures spread and penetration into cracks, crevices and surface breaks where contaminated dust and organic matter may have settled and dried. This phenolic disinfectant-detergent exhibits a microbicidal capacity which contributes importantly to the establishment and maintenance of a sanitary environment throughout the hospital when used regularly on floors and other surfaces to disinfect, clean and deodorize in one operation.

Finally, O-SYL in the recommended dilutions is nonstaining and odorless. It is soluble in water in all proportions. Supplied in a highly concentrated form, one gallon — when diluted 1:128 — is enough to disinfect and clean all the floor space in one and one-third hospitals of 100 beds each.

Despite resistant staph, the tubercle bacillus, and the increasingly threatening Pseudomonas aeruginosa, there is no reason why our hospitals should be faced with the prospect of becoming repositories for pathogenic micro-organisms. With a carefully planned and diligently executed contamination control program, any hospital can reduce the prevalence of pathogens on the environmental surfaces within its confines.

BACTERIOLOGY

TEST PROCEDURE

O-SYL* is staphylocidal, pseudomonacidal, tubercucidal, fungicidal and virucidal on environmental surfaces.


Tests against various organisms (O-SYL at a Use-Dilution of 1:128)


RESULTS

O-SYL was tested against various organisms (O-SYL at a Use-Dilution of 1:128)

<table>
<thead>
<tr>
<th>Test Organism</th>
<th>Subculture Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salmonella choleraesuis ATCC 10708</td>
<td>Letheen Broth 0</td>
</tr>
<tr>
<td>Salmonella paratyphi ATCC 9281</td>
<td>Letheen Broth 0</td>
</tr>
<tr>
<td>Salmonella schottmuelleri ATCC 10719</td>
<td>Letheen Broth 0</td>
</tr>
<tr>
<td>Shigella dysenteriae ATCC 11835</td>
<td>Letheen Broth 0</td>
</tr>
<tr>
<td>Enterobacter aerogenes ATCC 13048</td>
<td>Letheen Broth 0</td>
</tr>
<tr>
<td>Proteus vulgaris ATCC 9290</td>
<td>Letheen Broth 0</td>
</tr>
<tr>
<td>Escherichia coli ATCC 19808 (ATCC 11229)</td>
<td>Letheen Broth 0</td>
</tr>
<tr>
<td>Pseudomonas aeruginosa ATCC 15442</td>
<td>Letheen Broth 0</td>
</tr>
<tr>
<td>Klebsiella pneumoniae ATCC 9997</td>
<td>Letheen Broth 0</td>
</tr>
<tr>
<td>Neisseria elongata ATCC 25295</td>
<td>Letheen Broth 0</td>
</tr>
<tr>
<td>Serratia marcescens ATCC 8195</td>
<td>Letheen Broth 0</td>
</tr>
<tr>
<td>Staphylococcus aureus 209 ATCC 6538</td>
<td>Letheen Broth 0</td>
</tr>
<tr>
<td>Staphylococcus aureus B8/81 (Penicillin resistant)</td>
<td>Letheen Broth 0</td>
</tr>
<tr>
<td>Streptococcus faecalis ATCC 828</td>
<td>TSB w/Letheen 0</td>
</tr>
<tr>
<td>Streptococcus pyogenes ATCC 12384</td>
<td>TSB w/3% sheep blood</td>
</tr>
<tr>
<td>Streptococcus salivarius ATCC 9022</td>
<td>TSB w/3% sheep blood</td>
</tr>
<tr>
<td>Corynebacterium diphtheriae ATCC 11913</td>
<td>TSB w/Letheen 0</td>
</tr>
<tr>
<td>Candida albicans ATCC 1023</td>
<td>F-Broth w/Letheen 0</td>
</tr>
<tr>
<td>Trichophyton interdigitale ATCC 640</td>
<td>F-Broth w/Letheen 0</td>
</tr>
</tbody>
</table>

* Tested in both 400 ppm hard water and distilled water

Number Cylinders + of Those Tested

<table>
<thead>
<tr>
<th>Sample</th>
<th>Dilution of O-SYL</th>
<th>Pseudomonas aeruginosa</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1:128</td>
<td>0 of 30</td>
</tr>
<tr>
<td>2</td>
<td>1:128</td>
<td>0 of 30</td>
</tr>
<tr>
<td>3</td>
<td>1:128</td>
<td>0 of 30</td>
</tr>
</tbody>
</table>

Phenol Resistance

<table>
<thead>
<tr>
<th></th>
<th>5'</th>
<th>10'</th>
<th>15'</th>
<th>5'</th>
<th>10'</th>
<th>15'</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1:70</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1:80</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1:90</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>1:100</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

* Tested in both 400 ppm hard water and distilled water
**Official Solution is Final**

**TEST PROCEDURE**


Mycobacterium tuberculosis var. bovis (BCG)

<table>
<thead>
<tr>
<th>Dilution of O-SYL</th>
<th>Number Rings Tested</th>
<th>Number Tubes +</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Proskauer-Beck</td>
</tr>
<tr>
<td>1:128</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Phenol</td>
<td>1.50</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1.75</td>
<td>0</td>
</tr>
</tbody>
</table>


Trichophyton interdigitale

<table>
<thead>
<tr>
<th>Dilution of O-SYL</th>
<th>5'</th>
<th>Test 1</th>
<th>Test 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:128</td>
<td>10'</td>
<td>15'</td>
<td>10'</td>
</tr>
<tr>
<td>Phenol</td>
<td>1.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.70</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Virucidal Activity** — 0.9 ml of O-SYL, diluted 1:128, was mixed with 0.1 ml of undiluted viruses. The contact time was 10 minutes at room temperature. The titer of the treated virus was compared with that of untreated viral controls. The number of tests shown is that required for registration with the E.P.A. as described by Stuart, L. S., Testing Sterilizers, Disinfectants, Sanitizers and Bacteriostatic Chemicals, Proceedings of the Chemical Specialties Manufacturers Association: pages 123-125, May 1969.

**Test Viruses**

- Herpes simplex
- Vaccinia
- Adenovirus Type 2
- Influenza A

<table>
<thead>
<tr>
<th>Titer</th>
<th>Grown In</th>
</tr>
</thead>
<tbody>
<tr>
<td>10⁰ TCID/50</td>
<td>Rabbit kidney cells</td>
</tr>
<tr>
<td>10⁰ TCID/50</td>
<td>Rabbit kidney cells</td>
</tr>
<tr>
<td>10⁰ TCID/50</td>
<td>HeLa cells</td>
</tr>
<tr>
<td>10⁰ TCID/50</td>
<td>Chick embryo</td>
</tr>
</tbody>
</table>

**RESULTS:**

All viruses treated with O-SYL diluted 1:128 were completely inactivated. Complete inactivation indicates at least 3 logs of virus were inactivated with no survival virus detected within limits allowed by the toxicity of the medium.

**HOUSEKEEPING**

There is no substitute for efficient, thorough, and regular housekeeping to reduce the dangers of cross-contamination. No area should be neglected. All floors, walls, furniture, and other hard surfaces must be thoroughly cleaned and disinfected. O-SYL can accomplish the job in one step because it is a combination disinfectant and detergent.

By paying particular attention to the high hazard areas discussed in other sections of this brochure, dissemination of contamination throughout the hospital can be minimized.

**OPERATING ROOMS**

By using O-SYL at a use-dilution of 1:128 on all surfaces of the operating room, cleanliness can be maintained. Between-case decontamination will be rapidly accomplished since O-SYL disinfects as it cleans.

Surgical instruments and glassware should be disinfected after use by immersion in a 3% O-SYL solution for at least 15 minutes prior to routine cleaning and resterilization.

O-SYL has no adverse effect on conductive flooring.*

*Tested by Electrical Testing Laboratories, New York City.

**RECOVERY ROOMS**

Because of the volume of traffic and the multitude of cases in the recovery room, cross-contamination hazards are high. O-SYL solution is a powerful weapon to prevent the spread of contamination.

Floors, walls and other hard surfaces may be cleaned and disinfected with O-SYL at a use-dilution of 1:123. Carts used to transport surgical patients in the recovery room should be wiped down with O-SYL after each use.

**ISOLATION UNITS**

Isolation units are designed to contain pathogens within the unit, destroy them there and thereby prevent their being carried throughout the hospital. The infected patient continuously sheds these organisms into his environment. Because of gravity, these tend to settle on the floor and then they are moved by air flow to walls, furniture and fixtures. These surfaces must, therefore, be cleaned and disinfected daily. O-SYL, at its recommended use-dilution, maintains these surfaces in a sanitary condition.

**PEDIATRICS**

Children with respiratory diseases are often admitted to the pediatric department. Their infectious organisms are discharged to the air and settle to the floor. From here they may be spread to other children who pick up toys from the floor or when they play on it. The regular use of O-SYL on floors, furniture and fixtures will help hold cross-contamination to a minimum.
Organic matter, which is usually present in the delivery room, plus soil carried in by the shoes of medical personnel, lead to heavy contamination of the floors. O-SYL effectively cleans the floors and destroys pathogenic bacteria simultaneously. Particular attention should also be given to the delivery table.

Daily cleaning and disinfecting of all maternity rooms and wards with O-SYL will aid in keeping puerperal sepsis a rare occurrence.

Staphylococcus aureus, a constant threat to newborn infants, is destroyed by O-SYL when applied daily. These disinfectant-detergents are supplied as a concentrated liquid. To avoid waste and insure efficiency, use in dilutions recommended for the purpose. To make the strength solution required, add concentrated O-SYL to water in the proportions indicated below:

<table>
<thead>
<tr>
<th>Dilution</th>
<th>Strength Solution</th>
<th>Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.78% (1:128)</td>
<td>O-SYL</td>
<td>WATER</td>
</tr>
<tr>
<td>8 cc</td>
<td>1 Quart</td>
<td></td>
</tr>
<tr>
<td>30 cc</td>
<td>1 Gallon</td>
<td></td>
</tr>
<tr>
<td>3 oz.</td>
<td>3 Gallons</td>
<td></td>
</tr>
<tr>
<td>5 oz.</td>
<td>5 Gallons</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dilution</th>
<th>Strength Solution</th>
<th>Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>3% (3:100)</td>
<td>O-SYL</td>
<td>WATER</td>
</tr>
<tr>
<td>30 cc</td>
<td>1 Quart</td>
<td></td>
</tr>
<tr>
<td>4 oz.</td>
<td>1 Gallon</td>
<td></td>
</tr>
<tr>
<td>12 oz.</td>
<td>3 Gallons</td>
<td></td>
</tr>
<tr>
<td>20 oz.</td>
<td>5 Gallons</td>
<td></td>
</tr>
</tbody>
</table>

General Disinfection — recommended dilution, 1:128.

Floors: Because any germicidal solution becomes contaminated rapidly when a dirty mop is immersed in it, all mops should be laundered and mended for disinfection of floors. In this procedure, the O-SYL solution is placed in both buckets. Beginning with a clean mop, dip in first bucket and wring out then mop an area of the floor. It is then placed in the second bucket, wrung out, inserted into first bucket, wrung, and another area of floor is mopped. Repeat this procedure each time the mop requires additional O-SYL solution. Allow floor to dry without rinsing.

Walls: With a cloth dampened in O-SYL solution, begin wiping walls from the baseboard and work upward. This method prevents streaking.

Furniture: For terminal disinfection, wash all furniture with O-SYL solution; wheels, casters and legs of furniture should be drenched with disinfectant solution. For daily disinfection, wipe furniture with cloth dampened in O-SYL solution. Allow to dry without rinsing.

Bathrooms: Wet mop and rinse floors, and wash and rinse tiled and other surfaces and all plumbing fixtures, with O-SYL solution.

Utility Rooms: As above.

Service Closets: Disinfect walls weekly. Wash floors and sinks daily with O-SYL solution. Disinfect pails and wash tanks and allow to stand empty between uses.

Tuberculosis Hygiene — recommended dilutions, 1:128 and 3:100.

Wet mop floors daily with O-SYL (1:128). Wipe walls and furniture daily with cloth dampened in 1:128 solution. For gross contamination from vomitus, pus, sputum, excreta or barium accident, wash and then rinse with 3:100 solution. Wipe oral and rectal thermometers with 3:100 solution then immerse in a similar O-SYL solution for 15 minutes.

Instrument Disinfection — recommended dilution, 3:100.

Surgical Instruments: Rinse off adhering mucus or excrete. Immerse in 3:100 O-SYL for 15 minutes. Rinse with sterile water. To store, place in sterile wrap.

Clinical Thermometers — recommended dilution, 3:100.

Oral: Wipe with O-SYL solution immediately after use, applying friction. Immerse in O-SYL solution. After 15 minutes, remove from disinfectant-cleaning solution, rinse under running water and place in container ready for next use.

Rectal: Proceed as above. Use surgical jelly for lubrication — avoid petrolatum or mineral oil which forms a fatty coating on the thermometer thereby preventing effective contact with the disinfectant solution.

In Patient Area: When thermometer for the individual patient is kept in the patient's room or area, dry wipe immediately after use then store in 3:100 O-SYL ready for next use. Dry with sterile cotton ball before use.

Note: Immersion in the O-SYL solution does not affect permanent thermometer markings. However, markings produced by "wiping-in" of a colored paste may be removed (float out) by O-SYL's active detergent action. Thermometers may be collected into solution for return to central supply to avoid spreading contamination en route.
Environmental Disinfection

Dependable disinfection of all inanimate surfaces in the hospital is an important part of controlling cross-contamination. Other measures are of course necessary, but hospitals which have increased environmental disinfection are finding that cross-contamination is prevented from becoming a problem, or if it was a problem, it has been brought under control.

Let us help you with any disinfection problem you have. Technical assistance is available to your Committee on Cross-Inf ection or to individual department heads on request.

ACTIVE INGREDIENTS: o-Phenylphenol, 5.00%; o-Benzyl-p-chlorophenol, 4.50%; Tetrasodium Ethylene Diamine Tetraacetate, 3.04%; Isopropyl Alcohol, 1.50%; p-tert-Amylphenol, 1.00%.

INERT INGREDIENTS: 84.96%