ONE GALLON

pheneen®

SANITIZER

CATALOG NO. 1686-16

Guaranteed Minimum Phenol Coefficients (A.O.A.C.—20°C)
S. aureus—42
S. typhosa—27

EPA Reg. No. 7211-12
EPA Est. 7211-MN-1

DANGER: Keep Out of Reach of Children. See left panel for first aid and additional precautions.

Active Ingredients:	
Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chlorides	2.25%
Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chlorides	2.25%
Sodium carbonate	3.00%
Inert Ingredients:	92.50%
	100.00%

Manufactured by
THE ULMER PHARMACAL COMPANY
Division Physicians and Hospitals Supply Co.
Minneapolis, Minnesota 55403

Concentrated—Must Be Diluted Before Use

INSTRUCTIONS FOR DISINFECTING, CLEANING AND DEODORIZING:

WALLS, FLOORS, AND FURNITURE
Add 2 oz. PHENEEN SANITIZER per gallon of water (provides 700 ppm of active quaternary). Apply PHENEEN SANITIZER with a cloth or mop. If excess solution is mopped up and the surface allowed to dry without rinsing, a residual bacteriostatic film will give effective odor control.

This product will be effective against Pseudomonas aeruginosa PRD-10 at this level. This has been substantiated by the AOAC Use Dilution Confirmation Test.

If used to sanitize food equipment or other food contact items, limit the level to 200 ppm of quaternaries (1/2 oz. per gallon of water).

May be used on food contact surfaces in eating places.

Treated food surfaces must be rinsed with potable water prior to reuse.

For removing heavy soil or organic matter, a precleaning step is recommended.

FUNGICIDAL PROPERTIES
This product will pass the AOAC fungicidal test at a 1-64 dilution.

PHENEEN SANITIZER does not in any way reduce floor conductivity.

PRODUCT DATA

Pheneen®

GERMICIDAL FUNGICIDAL SOLUTIONS

PHENEEN SOLUTION
PHENEEN SOLUTION N.R.I.
PHENEEN SANITIZER
BI-AMINE

Manufactured by
THE ULMER PHARMACAL COMPANY
Division Physicians and Hospitals Supply Co.,
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Pheneen®

Germicidal - Fungicidal Solutions

PHENEEN SOLUTIONS have a dual quarternary ammonium compound as the basic ingredient. These Dual-Quats® provide high standards of performance in disinfection as evidenced by high phenol coefficients, high tolerance to hard water and broad spectrum action against gram positive and gram negative organisms. Tailor made raw materials in PHENEEN SOLUTIONS provide synergistic action between the two individual components.

Surface Active Properties

PHENEEN SOLUTIONS have innate wetting action. Hard to reach areas (cracks, crevices and porous surfaces) are readily penetrated, thereby providing rapid contact with contaminated areas.

Corrosion

Use dilutions of PHENEEN SOLUTIONS are non-corrosive and nonstaining to metals, asphalt tiles, terrazo and plastic surfaces.

Antimicrobial Activity of the Dual Quaternary Ammonium Compound

(100% Active Basis)

Bacteria	BS MIL (ppm)	Bcd KD	PR	PC
Staphylococcus aureus ATCC #5638	2	1/69,000	1/60	1150
Streptococcus faecalis ATCC #10541	2	1/150,000	1/70	2143
Salmonella typhosa ATCC #6539	8	1/68,000	1/90	755
Eschericia coli ATCC #11229	8	1/33,000	1/90	366
ATCC #4352	8	1/35,000	1/60	583
Proteus mirabilis ATCC #9921	45	1/17,000	1/85	200
Pseudomonas aeruginosa ATCC #15442	35	1/28,000	1/85	329

Fungi	FS (MIL) ppm
Aspergillis niger ATCC #6275	50
ATCC #10535	15
IPC #144	15
Tricophyton mentagraphytes ATCC #9533 (interdigitale) #640 Strain	2

Yeast	FS (MIL) ppm
Candida albicans ATCC #10231	5
Pityrosporum ovale ATCC #14521	2

Bacteriostasis (BS): Minimum Inhibitory Levels (MIL) determined by broth inhibition tests.

Bactericidal (Bcd): Killing Dilutions (KD) after 10 minutes contact periods by the Phenol Coefficient Method.

Phenol Coefficients (PC): Killing Dilutions of PHENEEN SANITIZER compared to phenol.

Phenol Resistance (PR): Killing Dilution for Phenol after 10 minute contact period.

Fungistatic (FS): Minimum Inhibitory Levels (MIL) determined by broth inhibition tests.

All PHENEEN SOLUTIONS are registered with the Environmental Protection Agency.

PHENEEN SOLUTION is recommended for cold disinfection and storage of surgical instruments. It is an effective, rapid germicide and fungicide and contains an efficient rust inhibitor. We guarantee that stainless

steel surgical instruments will not rust in PHENEEN SOLUTION.

PHENEEN SOLUTION NRI (no rust inhibitor) is especially recommended for disinfection and deodorizing of laboratory glassware, rubber and plastic items.

PHENEEN SANITIZER is a formulated hard surface sanitizer to aid in combating cross-infections in hospitals, nursing homes, doctors' offices and schools where good housekeeping is of prime importance. PHENEEN SANITIZER disinfects, cleans and deodorizes.

BI-AMINE contains highly concentrated dual quaternary compounds and detergent. BI-AMINE disinfects, cleans, and deodorizes. It is also recommended for fogging of hospital rooms. Fogging minimizes the danger of cross-infection to hospital maintenance personnel from the inanimate environment.

Dilutions of PHENEEN SOLUTIONS present no significant hazards at suggested use levels. They will not stain or otherwise injure clothing or other materials which would not be harmed by a mildly alkaline solution.

PHENEEN SOLUTION and PHENEEN SOLUTION NRI are odorless and colorless. PHENEEN SANITIZER is tinted green for identification and contains a refreshing scent. BI-AMINE is pleasantly scented.

PHENEEN products are stable for several years.

Pheneen Solution

Environmental Protection Agency
Registration No. 7211-10

PHENEEN SOLUTION has the following composition:

ACTIVE INGREDIENTS:	
n-Alkyl (60%C_{14}, 30%C_{16}, 5%C_{12}, 5%C_{18}) dimethyl benzyl ammonium chlorides	0.125%

n-Alkyl (68%C_{12}, 32%C_{14}) dimethyl ethylbenzyl ammonium chlorides	0.125%
INERT INGREDIENTS	99.750%
CONTAINS SODIUM NITRITE	100.000%

PHENEEN SOLUTION is for cold disinfection and storage of surgical instruments. It is an effective, rapid germicide and fungicide. PHENEEN SOLUTION contains sodium nitrite which protects stainless steel instruments from rust.

When used as directed, PHENEEN SOLUTION is effective against Staphylococcus aureus, Salmonella choleraesuis and Pseudomonas aeruginosa. PHENEEN SOLUTION is also effective against pathogenic fungi, Trichophyton interdigitale.

INSTRUCTIONS FOR USE: INSTRUMENT DISINFECTION

DO NOT DILUTE: Solution is ready for use for instruments — dilution may inactivate the rust inhibitants.

1. Clean instruments thoroughly and rinse well to remove detergents.
2. Remove excess water by blotting on towel when possible.
3. Immerse instruments completely in PHENEEN SOLUTION: allow to remain in solution for at least 15 minutes. Stainless steel instruments may be stored without damage indefinitely in the solution if desired.

Alternate Storage Instructions:

4. Remove instruments from solution; allow excess solution to drain but do not wipe instruments.
5. Store in covered container or sterile wrap.

When used in accordance with above directions, PHENEEN SOLUTION will prevent corrosion and will not damage sharps.

With continued use, the germicidal activity may be reduced. It is suggested the

solution be discarded and replaced every week.

CAUTION: Keep Out of Reach of Children. Harmful if swallowed. Causes eye irritation. May cause skin irritation. In case of contact with skin or eyes, flush with plenty of water. Get medical attention if irritation persists.

Pheneen Solution NRI

Environmental Protection Agency
Registration No. 7211-11

PHENEEN SOLUTION NRI has the following composition:

ACTIVE INGREDIENTS:
n-Alkyl (60%C_{14}, 30%C_{16}, 5%C_{12}, 5%C_{18}) dimethyl benzyl ammonium chlorides 0.5%
n-Alkyl (68%C_{12}, 32%C_{14}) dimethyl ethylbenzyl ammonium chlorides 0.5%
INERT INGREDIENTS 99.0%
100.0%

Guaranteed Minimum Phenol Coefficients
(A.O.A.C. — 20° C)
S. aureus — 9.0
S. typhosa — 6.0

PHENEEN SOLUTION NRI disinfects and deodorizes laboratory glassware, urinals, enamelware, thermometers, rubber and plastic items.

PHENEEN SOLUTION NRI, 7.5 oz. per gallon of water, is effective against Staphylococcus aureus, Salmonella choleraesuis and Pseudomonas aeruginosa. PHENEEN SOLUTION NRI, 16 oz. per gallon of water, is also effective against pathogenic fungi, trichophyton interdigitale.

INSTRUCTIONS FOR DISINFECTING AND DEODORIZING: Laboratory Glassware, Urinals, Enamelware, Thermometers, Rubber & Plastic Items

Add 7.5 oz. PHENEEN SOLUTION NRI per gallon of water. Immerse above

items in this solution for a minimum of 15 minutes. Remove items from solution and air dry without rinsing or wiping. Thermometers should be rinsed with clean water before use.

WALLS, FLOORS AND FURNITURE:*

Add 7.5 oz. PHENEEN SOLUTION NRI per gallon of water. Apply solution with cloth or mop. Mop up excess solution and allow to dry without rinsing.

Surfaces to be disinfected should be physically clean and rinsed free of soap or detergent before disinfection.

IMPORTANT: Do not use for storage of surgical instruments. Use PHENEEN SOLUTION, Cat. No. 1660, for instrument disinfection.

WARNING: Keep Out of Reach of Children. Causes eye or skin irritation. Do not get in eyes, on skin or on clothing. Harmful if swallowed. Avoid contamination of food.

*Wood and vinyl furniture surfaces.

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, gelatin solution, or if these are not available, drink large quantities of water. Call a physician.

Rinse empty container thoroughly with water and discard it.

Pheneen Sanitizer

Environmental Protection Agency
Registration No. 7211-12

PHENEEN SANITIZER has the following composition:

ACTIVE INGREDIENTS:
n-Alkyl (60%C_{14}, 30%C_{16}, 5%C_{12}, 5%C_{18}) dimethyl benzyl ammonium chlorides 2.25%

n-Alkyl (68%C_{12}, 32%C_{14}) dimethyl ethylbenzyl ammonium chlorides 2.25%
Sodium carbonate 3.00%
INERT INGREDIENTS 92.50%
100.00%

Guaranteed Minimum Phenol Coefficients
(A.O.A.C. — 20° C)
S. aureua — 42
S. typhosa — 27

PHENEEN SANITIZER is a cleaner, disinfectant, and sanitizer designed for institutional use, such as Hospitals, Nursing Homes, Doctors' Offices, and Schools, where good housekeeping will be of prime importance. Hard surface sanitization with PHENEEN SANITIZER can help in this control.

INSTRUCTIONS FOR DISINFECTING, CLEANING AND DEODORIZING: Walls, Floors and Furniture

Add 2 oz. PHENEEN SANITIZER per gallon of water (provides 700 ppm of active quaternary). Apply PHENEEN SANITIZER with a cloth or mop. If excess solution is mopped up and the surface allowed to dry without rinsing, a residual bacteriostatic film will give effective odor control.

This product will be effective against Pseudomonas aeruginosa PRD-10 at this level. This has been substantiated by the AOAC Use Dilution Confirmation Tests.

If used to sanitize food equipment or other food contact items, limit the level to 200 ppm of quaternaries (1/2 oz. per gallon of water). Sanitized food equipment or other food contact items must be rinsed in potable water prior to reuse.

For removing heavy soil or organic matter, a precleaning step is recommended.

FUNGICIDAL PROPERTIES

This product will pass the AOAC fungicidal test at a 1-64 dilution, 2 oz. per gallon of water.

PHENEEN SANITIZER does not in any way reduce floor conductivity. PHENEEN

SANITIZER in use dilution is non-corrosive on inanimate hard surfaces.

WARNING: Keep Out of Reach of Chilren. Causes severe eye irritation. Causes skin irritation. Do not get in eyes, on skin or on clothing. Harmful 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, call a physician. Remove and wash all contaminated clothing before reuse. If swallowed, drink milk, egg white or, gelatin solution or if these are not. available drink large quantities of water. Avoid alcohol. Call a physician. Do not mix soap or anionic materials with PHENEEN SANITIZER.

Do not reuse empty drum. Return to drum reconditioner or destroy by perforating or crushing and burying in a safe place.

Amine

(Formerly Bi-Phene)
Environmental Protection Agency
Registration No. 7211-13

BI-AMINE has the following composition:

ACTIVE INGREDIENTS:
n-Alkyl (60%C_{14}, 30%C_{16}, 5%C_{12}, 5%C_{18}) dimethyl benzyl ammonium chlorides .[. . . . . .] 4.5%
n-Alkyl (68%C_{12}, 32%C_{14}) dimethyl ethylbenzyl ammonium chlorides 4.5%
Tetrasodium ethylenediamine tetraacetate 2.0%
Sodium carbonate 4.0%
INERT INGREDIENTS 85.0%
100.0%

BI-AMINE is a concentrated detergent, disinfectant, sanitizer fungicide and deodorizer. It contains no phosphate. BI-AMINE is specifically designed for institutional use such as Hospitals, Nursing Homes and Schools, where housekeeping will be of prime importance in reducing the hazards of cross-infection from inanimate environment.

BI-AMINE is for use on floors, walls and other hard surfaces in Hospitals, Nursing Homes, Hotels, Public Areas, Industrial Areas and in Institutions. It is excellent for Operating Rooms, Rest Rooms, Nurseries and Food Service Areas.

When used as directed, BI-AMINE is effective against Staphylococcus aureus, Salmonella choleraesuis and Pseudomonas aeruginosa. BI-AMINE is also effective against pathogenic fungi, Trichophyton interdigitale.

This product, when used on environmental, inanimate, hard surfaces at 1 ounce per gallon of water, is effective against influenza A_2, Herpes Simplex, Adenovirus type 2, and Vaccinia viruses.

BI-AMINE USE DIRECTIONS

DISINFECTION: Use at 1 ounce per gallon of water. This product will be effective against Pseudomonas aeruginosa PRD-10 at this level.

At 1 ounce per gallon of water, this product is fungicidal against pathogenic fungi. For best results, use BI-AMINE with a cloth or mop and apply to walls, floors and other hard surfaces. If excess solution is mopped up and surface allowed to dry without rinsing, a residual bacteriostatic film will give effective odor control.

SANITIZATION: If used for sanitization of previously cleaned food equipment or other food contact items, limit the level of active quaternary to 200 ppm (1.4 oz. per 5 gallons). Treated food contact surfaces must be rinsed with potable water prior to reuse.

For heavy soil or organic matter, a precleaning step is recommended.

Rinse empty container thoroughly with water and discard.

DANGER: Keep Out of Rea[illegible] 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. Drink milk, egg whites, gelatin

solution, or if these are not available, drink large quantities of water. Call a physician.

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, gelatin solution or if these are not available, drink large quantities of water. Call a physician immediately.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

FOGGING WITH BI-AMINE

Fogging is a sanitizing technique accomplished by propelling a mechanically generated mist into a confined enclosure. The mist aids in reducing the danger of cross-infection from the inanimate environment. The minute particle size and density of the fog makes it possible to reach such surfaces as ceilings, radiator enclosures, lighting fixtures which are virtually inaccessible to manual application methods.

The fogging unit consists of a Fogmaster to generate the fog, a turntable and a timer.

DIRECTIONS FOR ROOM FOGGING: To minimize the danger of cross-infection to maintenance personnel from the inanimate environment, apply solution of BI-AMINE as a fog as described below, before applying standard routine terminal cleaning and disinfecting practices. 1. Remove all human, animal, and plant life from room. 2. Open closet doors and drawers. 3. Set up revolving platform 34" high in center of room. 4. Mount Fogmaster or other fogging device delivering equivalent spray on a turntable that rotates at 3 RPM. 5. Fill sprayer reservoir with 1.7 oz. of BI-AMINE to 1 gallon of water to produce 1150 ppm active ingredients. 6. Set sprayer mechanism to deliver 1 gallon of solution.