

GERMICIDAL DETERGENT

Product Number 102713

PSEUDOMONACIDAL STAPHYLOCIDAL + VIRUCIDAL FUNGICIDAL

QUANTO is a concentrated multi-purpose germicidal detergent proven effective by the OAC Use-Dilution Method in 400 ppm hard water (Calculated as CaCO3) in the presence of 5% organic bioload (Fetal Bovine Serum). Refer to the QUANTO Research Bulletin for testing details

QUANTO's superior powerful formula disinfects, cleans, and deodorizes in one labor saving step. QUANTO is effective against the following pathogenic organisms:

Pseudomonas aeruginosa	Salmonella choleraesuis	Staphylococcus aureus	*Adenovirus Type 2	*Rubella
Enterobacter aerogenes	Enterobacter cloacae	Staphylococcus aureus phage 80	*Herpes Simplex Type 1	*Avian Infectious Bronchitis
Escherichia coli	Klebsiella pneumoniae	Staphylococcus aureus phage 81	*Influenza Type A/Mich	*Avian Influenza A/Mich
Proteus mirabilis	Proteus vulgaris	Staphylococcus epidermidis	*Vaccinia	*Bovine Parvovirus
Shigella flexneri	Shigella sonnei	Streptococcus pyogenes	*Adenovirus Type 4	*Infectious Bovine Rhinotracheitis
	Serratia marcescens		*Herpes Simplex Type 2	
		Trichophyton mentagrophytes		
		Candida albicans		

*Classified by Underwriters Laboratories Inc. as to electrical conductivity when used on conductive floors and spontaneous heating. QUANTO for use with listed electrically conductive flooring of the vinyl type. 378Y

DILUTIONS: 1 to 128 ONE OUNCE PER GALLON

DIRECTIONS FOR USE GENERAL CLASSIFICATION

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling

GENERAL USE DIRECTIONS

USES: Floors, walls, metal surfaces, painted surfaces, exterior bowl surfaces, empty basins, showers, conductive flooring, and lavatory fixtures. For institutional use only such as in hospitals and nursing homes, schools and colleges, medical and dental offices, and veterinary clinics

APPLICATION: Use one ounce of QUANTO per gallon of water for a minimum contact time of 10 minutes in a single application. For disinfecting, remove gross filth and heavy soil deposits, then thoroughly wet surfaces. QUANTO is extremely versatile and can be applied with a mop, sponge, or cloth as well as soaking. The recommended use solution is used once and discarded. Rinsing is not necessary on floor surfaces unless floors are to be waxed or polished

ACTIVE INGREDIENTS: Didecyl dimethyl ammonium chloride 4.61
n-Alkyl (C14 50%, C12 40%, C16 10%) dimethyl benzyl ammonium chloride 3.07

INERT INGREDIENTS 92.32

DANGER: KEEP OUT OF REACH OF CHILDREN. ONLY FOR SALE TO, USE, AND STORAGE BY SERVICE PERSONS.

STATEMENT OF PRACTICAL TREATMENT

In case of skin contact, wash thoroughly with soap and water. In case of eye contact, immediately flush eyes with water for 15 minutes and get prompt medical attention. If swallowed, drink promptly a large quantity of milk, egg whites, gelatin solution or if these are not available, drink large quantities 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

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Corrosive. Concentrate causes eye and skin damage. May be absorbed through the skin. Do not get in eyes, on skin or clothing. Wear goggles or face shield and rubber gloves when handling. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse. Harmful if swallowed. Avoid contamination of food, water or feed

STORAGE AND DISPOSAL

PROHIBITIONS

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container

PESTICIDE DISPOSAL

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance

CONTAINER DISPOSAL

PLASTIC CONTAINERS

Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke

GENERAL

Consult federal, state, or local disposal authorities for approved alternative procedures such as limited open burning

HL-10141-5 (5/85)

EPA Reg No 303-92 EPA Est No 303-IN-1, PA-1
(See shoulder or bottom of container for plant identification number)

Huntington Laboratories, Inc., Huntington, IN 46750
Lansdale, PA 19446 • Dallas, TX 75227 • Oakland, CA 94621 • Bramalea, Ontario L6T 1E3

ACCEPTED
AUG 09 1985
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 303-92

DILUTION 1:128 (ONE OUNCE PER GALLON)

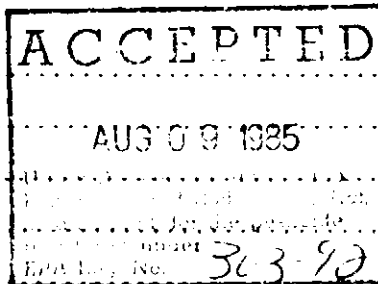
**BACTERICIDAL
FUNGICIDAL
VIRUCIDAL***

In addition to its cleaning and deodorizing capabilities, Quanto's high powered formula allows it to be efficacious against a wide spectrum of both gram-positive and gram-negative bacteria as well as other potential disease-causing organisms such as fungi and viruses in the presence of 400 ppm hard water (calculated as CaCO₃) and 5% organic bioload simultaneously. This unique formula has been tested and the results revealed that Quanto can disinfect, clean, and deodorize in one labor saving step in 400 ppm hard water (calculated as CaCO₃) and 5% organic bioload.

E.P.A. Reg. No. 303-92

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QUANTO GERMICIDAL DETERGENT

BACTERICIDAL:	<i>Pseudomonas aeruginosa</i>	<i>Staphylococcus aureus</i>
	<i>Salmonella choleraesuis</i>	<i>Staphylococcus aureus</i> phage 80
	<i>Enterobacter aerogenes</i>	<i>Staphylococcus aureus</i> phage 81
	<i>Enterobacter cloacae</i>	<i>Staphylococcus epidermidis</i>
	<i>Escherichia coli</i>	<i>Streptococcus pyogenes</i>
	<i>Klebsiella pneumoniae</i>	<i>Shigella flexneri</i>
	<i>Serratia marcescens</i>	<i>Shigella sonnei</i>
	<i>Proteus mirabilis</i>	
	<i>Proteus vulgaris</i>	
FUNGICIDAL:	<i>Trichophyton mentagrophytes</i>	<i>Candida albicans</i>
VIRUCIDAL:	Adenovirus Type 2	Avian Infectious Bronchitis
	Adenovirus Type 4	Avian Influenza Type A/Duck/Mich
	Herpes Simplex Type 1	Bovine Parvovirus
	Herpes Simplex Type 2	Infectious Bovine Rhinotracheitis
	Influenza Type A/Mich	
	Rubella	
	Vaccinia	
DISINFECTS:	QUANTO has a blend of active ingredients for broad spectrum disinfection.	
CLEANS:	QUANTO's special combination of synthetic detergents and builders provides excellent cleaning properties.	
DEODORIZES:	QUANTO destroys most odor-causing bacteria, eliminating odors at their source.	
LABOR SAVING:	QUANTO's combination of ingredients means cleaning and disinfecting can be accomplished in one easy labor saving step.	
STABILITY:	Stable for a period of not less than 1 year from the date of manufacture.	
FLASH POINT:	None to boiling	
FRAGRANCE:	Lemon-Pine	
COLOR:	Clear fluorescent red	
ACTIVE INGREDIENTS:	didecyl dimethyl ammonium chloride.....	4.61%
	n-alkyl (C ₁₄ 50%, C ₁₂ 40%, C ₁₆ 10%) dimethyl benzyl ammonium chlorides..	3.07%
INERT INGREDIENTS:	92.32%
TOTAL:	100.00%

TESTING INFORMATION

The A.O.A.C. Use-Dilution Method was used to demonstrate the bactericidal properties of Hi-Tor. The basic test was modified in accordance with E.P.A. Pesticide Assessment Guidelines (Subdivision G, Section 91-30, Recommended Method No. 2) to include 400 ppm synthetic hard water as the diluent for Hi-Tor and 5% Fetal Bovine Serum (Whittaker M.A. Bioproducts, 14-501-A) as the 5% organic bioload added to the respective test inocula.

Through the years some products tested by the A.O.A.C. Use-Dilution Method have produced unexplained variable test results ^{1, 2, 3} especially with the test organism *Pseudomonas aeruginosa*.⁴ The addition of the 5% organic bioload appears to accentuate the test variability.⁵

In May, 1983, representatives of A.O.A.C., E.P.A., C.S.M.A., state government laboratories, independent laboratories, and academia met and formed an A.O.A.C. Use-Dilution Task Force, charged with the responsibility of improving and documenting the precision and accuracy of the A.O.A.C. Use-Dilution Method.^{6, 7, 8, 9} Huntington Laboratories, Inc. is a participant in the A.O.A.C. Use-Dilution Method Task Force and welcomes the opportunity to discuss the activities of the Task Force.

TESTING INFORMATION CONT.

Given the foregoing concerns about test variability, further laboratory testing of Hi-Tor should replicate the specially modified A.O.A.C. Use-Dilution Method as used to generate the data presented in this Research Bulletin.

Specific Details for the A.O.A.C. Use-Dilution Method as Used to Generate the Data Presented in this Research Bulletin

Summary of the A.O.A.C. Use-Dilution Confirmation Method. Official Methods of Analysis. 14th Edition. 1984. A.O.A.C. Chapter 4. Modified to include 400 ppm synthetic hard water as the test product diluent and 5% organic bioload added to the respective test inocula.

I. ORGANISM

- A. Culture Media. All test bacteria are propagated in nutrient broth (4.001).
- B. Phenol Resistance for each of the three (3) required test bacteria is determined (4.001-4.006).
- C. 5% Organic Bioload. One (1.0) ml of FETAL BOVINE SERUM is added to 19.0 ml of the respective test organism nutrient broth suspension.
- D. Contaminated Dried Carriers. Clean, sterile, stainless steel penicylinders are immersed in the test inocula (step C above) for 15 minutes at room temperature. After the 15 minutes, the wet, contaminated carriers are placed upright on a double layer of sterile filter paper in a sterile petri dish. This Petri dish is placed in an incubator set at 37°C for 30 minutes to allow the contaminated carriers to dry.

All carriers are polished stainless steel cylinders 8+ 1 mm od, 6+ mm id, length 10+ 1 mm, of type 304 stainless steel, SS18-8. (Obtainable from S&L Metal Products Corp., 58-29 57 Drive, Maspeth, NY 11378).

All new carriers are inspected for surface imperfections and general polished appearance. New carriers may yield atypical test responses. Cylinders are screened for uniformity of response by the use-dilution test. All new cylinders, which give positive responses when tested with Staphylococcus aureus against 500 ppm solution of alkyl dimethyl ammonium chloride, alkyl chain distribution of C₁₄ 50%, C₁₂ 40%, and C₁₆ 10% are discarded.

- E. Survival Density of Organisms from Dried Carriers. A contaminated dried carrier (step D above) is transferred to a test tube containing 10 ml phosphate buffer dilution water (4.020f). This test tube then is shaken 20 times in a one foot arc to dislodge the organisms from the carrier. Further tenfold serial dilutions through 10⁻⁴ are made and 1.0 aliquots of the appropriate dilutions are plated using the Pour-Plate Method and Standard Methods Agar. All plates are incubated at 27°C for 48 hours, and then the Colony Forming Units (CFU) are counted with the aid of a Quebec Colony Counter. All determinations are performed in duplicate. The average CRU/carrier is reported.

TESTING INFORMATION (CONT.)

II. PRODUCT

- A. Diluent. 400 ppm CaCO_3 -EQUIVALENT synthetic hard water is prepared according to 4.024 and tested according to 4.025.
- B. Dilution: The test product is diluted 1:256 with the 400 ppm synthetic hard water described above.
- C. Temperature. Test tubes, each containing 10 ml of the diluted test product (step B above), are placed in a water bath at 20°C for at least 15 minutes before use.

III. THE TEST

A contaminated dried carrier, described in I.D above, is added aseptically to a test tube of 10 ml of the diluted test product in II.C above. The test tube with the carrier is returned to the 20°C water bath for exactly 10 minutes.

IV. INCUBATION - RESULTS

- A. Recovery Media. After exactly 10 minutes (step III above), the carrier is removed from the diluted test product with a sterile needle and transferred to a test tube containing 10 ml of Letheen Broth 4.001 (d) (3).
- B. Incubation. All recovery tubes (step IV A) are incubated at 37°C for 48 hours.
- C. Results. After the 48 hour incubation period, each recovery tube is examined visually for turbidity. If the tube appears turbid, it is recorded as growth (+); if the tube appears clear, it is recorded as no growth (-).

V. NEUTRALIZATION CONTROL

- A. Product. 0.25 ml of the diluted test product (step II, B above) is added to a test tube containing 10 ml of Letheen Broth.
- B. Organism. The nutrient broth culture is diluted with phosphate buffer dilution water (4.020f) to achieve a cell density of approximately 10^2 CFU/ml. One (1.0) ml of this cell suspension is added to the test tube prepared in step V.A; this results in a final cell density of approximately 10^1 CFU/ml in the neutralization control tube. (All cell densities are confirmed by Standard Plate Count Methods).
- C. Incubation. The inoculated test tube in step V.B is incubated at 37°C for 48 hours.
- D. Results. After the 48 hour incubation period, the neutralization control tube is examined visually for turbidity (growth). This tube must show growth (+) (i.e., be turbid) for the test to be considered valid.

Various dilutions of QUANTO were tested against Pseudomonas aeruginosa using the A.O.A.C. Use-Dilution Method modified to include 400 ppm synthetic hard water (calculated as CaCO₃) as the diluent for QUANTO and 5% Fetal Bovine Serum as the organic bioload added to the Pseudomonas test inoculum.

- PRODUCT:** QUANTO at various dilutions
- TEST METHOD:** A.O.A.C. Use-Dilution Confirmation Test, modified to include 400 ppm synthetic hard water (calculated as CaCO₃) and 5% organic bioload (Fetal Bovine Serum).
- RECOVERY MEDIUM:** Lethen Broth
- ORGANISM:** Pseudomonas aeruginosa ATCC #15442
- RESULTS:**

Quat Conc. in Test Soln. (PPM)	Plate Counts (CFU/Carrier)	# Tubes Tested	# Tubes Showing Growth
200	3.5x10 ⁶	60	58
250	3.5x10 ⁶	60	30
300	3.5x10 ⁶	60	14
350	3.2x10 ⁶	60	9
400	3.2x10 ⁶	60	5
450	3.2x10 ⁶	60	0
500	4.0x10 ⁶	60	0
550	4.0x10 ⁶	60	0
600	4.0x10 ⁶	60	0

The "Official Methods of Analysis" of the Association of Analytical Chemists; Edited by Sidney William; Fourteenth Edition, 1984; Chapter 4, Disinfectants; Use-Dilution Methods 4.009, page 68 states:

"Max. diln. of germicide which kills test organism on 10 carriers in 10 min. interval represents presumed max. safe use-diln. for practical disinfection."

According to the A.O.A.C. criterion for the 'presumed max. safe use-dilution for practical disinfection', QUANTO could be diluted as much as 1:170 with 400 ppm hard water (450 ppm quat in use-dilution) and be presumed a safe use-diln. for practical cleaning/disinfection of environmental surfaces contaminated with organic soil and Pseudomonas aeruginosa. However, the QUANTO label states that QUANTO is to be diluted 1:128 or 1 oz. per gallon water (600 ppm quat in use-dilution); this provides 33% more active quat in use-dilution than presumed the minimum required for practical disinfection by the A.O.A.C. standard.

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**QUANTO® IS BACTERICIDAL
PSEUDOMONACIDAL, SALMONELLACIDAL, STAPHYLOCIDAL
IN THE PRESENCE OF 400 PPM HARD WATER (CALCULATED AS CaCO₃)
AND 5% ORGANIC BIOLOAD**

When tested according to the Use-Dilution Confirmation Test as outlined in the current edition of the A.O.A.C., QUANTO was shown to be bactericidal against the representative gram-positive organism, *Staphylococcus aureus*; the representative gram-negative organism, *Salmonella choleraesuis*; and, the representative hospital pathogen, *Pseudomonas aeruginosa*.

PRODUCT: QUANTO diluted 1:128

TEST METHOD: A.O.A.C. Use-Dilution Confirmation Test, modified in the presence of 400 ppm synthetic hard water (calculated as CaCO₃) and 5% organic bioload (Fetal Bovine Serum).

RECOVERY MEDIUM: Lethen Broth

ORGANISMS: *Staphylococcus aureus* ATCC #6538
Pseudomonas aeruginosa ATCC #15442
Salmonella choleraesuis ATCC #10708

RESULTS:

Sample	<i>Staphylococcus aureus</i>		<i>Pseudomonas aeruginosa</i>		<i>Salmonella choleraesuis</i>	
	# tubes tested	# tubes with growth	# tubes tested	# tubes with growth	# tubes tested	# tubes with growth
A	60	0	60	0	60	0
B	60	0	60	0	60	0
C 60 days old	60	0	60	0	60	0
Phenol Resistance	1:60		1:80		1:90	
Neutralization Control	+		+		+	
Plate Counts (CFU/Carrier)	1.8x10 ⁶		3.8x10 ⁶		8.7x10 ⁵	

CONCLUSION: QUANTO is bactericidal in 400 ppm hard water (calculated as CaCO₃) and 5% organic bioload against the hospital pathogens *Pseudomonas aeruginosa*, *Salmonella choleraesuis*, and *Staphylococcus aureus* at 1:128 (a ounce/gallon). Thus QUANTO meets the criteria for use as a hospital germicide.

QUANTO KILLS ANTIBIOTIC RESISTANT STAPH

Antibiotic resistant strains of Staph aureus can pose problems in hospitals. Proper use of QUANTO can help reduce the hazard of cross contamination by reducing the numbers of resistant Staph found in the hospital environment.

PRODUCT: QUANTO diluted 1:128

TEST METHOD: A.O.A.C. Use-Dilution Confirmation Test, modified in the presence of 400 ppm synthetic hard water (calculated CaCO₃) and 5% organic bioload (Fetal Bovine Serum).

RECOVERY MEDIUM: Lethen Broth

ORGANISMS: *Staphylococcus aureus* — phage 80
Staphylococcus aureus — phage 81

RESULTS:

Sample	<i>Staphylococcus aureus</i> phage 80		<i>Staphylococcus aureus</i> phage 81	
	# tubes tested	# tubes showing growth	# tubes tested	# tubes showing growth
Sample	20	0	20	0
Neutralization Control	+		+	
Plate Counts (CFU/Carrier)	9.8x10 ⁵		5.5x10 ⁵	

CONCLUSION: QUANTO kills resistant Staph at 1:128, (1 ounce/gallon) in the presence of 400 ppm hard water (calculated as CaCO₃) and 5% organic bioload (Fetal Bovine Serum).

**QUANTO - HAS BROAD SPECTRUM BACTERICIDAL ACTIVITY AGAINST
GRAM-POSITIVE AND GRAM-NEGATIVE ORGANISMS**

To demonstrate QUANTO's broad spectrum activity, QUANTO was tested against a wide range of bacteria which are pathogenic to man.

PRODUCT: QUANTO diluted 1:128

TEST METHOD: A.O.A.C. Use-Dilution Confirmation Test, modified in the presence of 400 ppm synthetic hard water (calculated as CaCO₃) and 5% organic bioload (Fetal Bovine Serum).

RECOVERY MEDIUM: Lethen Broth

RESULTS:

Gram-Positive Bacteria	Plate Counts (CFU/Carrier)	# tubes tested	# tubes showing growth
<i>Staphylococcus aureus</i>	1.8x10 ⁶	180	0
<i>Staphylococcus aureus</i> Phage 80	9.8x10 ⁵	20	0
<i>Staphylococcus aureus</i> Phage 81	5.5x10 ⁵	20	0
<i>Streptococcus pyogenes</i>	2.8x10 ⁵	20	0
<i>Staphylococcus epidermidis</i>	1.4x10 ⁶	20	0
Neutralization Control		+	

Gram-Negative Bacteria	Plate Counts (CFU/Carrier)	# tubes tested	# tubes showing growth
<i>Pseudomonas aeruginosa</i>	3.8x10 ⁶	180	0
<i>Salmonella choleraesuis</i>	8.7x10 ⁵	180	0
<i>Enterobacter cloacae</i>	2.0x10 ⁶	20	0
<i>Proteus vulgaris</i>	4.5x10 ⁵	20	0
<i>Serratia marcescens</i>	3.6x10 ⁵	20	0
<i>Proteus mirabilis</i>	1.9x10 ⁶	20	0
<i>Klebsiella pneumoniae</i>	6.7x10 ⁵	20	0
<i>Escherichia coli</i>	1.1x10 ⁶	20	0
<i>Shigella sonnei</i>	4.8x10 ⁵	20	0
<i>Shigella flexneri</i>	1.9x10 ⁶	20	0
<i>Enterobacter aerogenes</i>	4.6x10 ⁶	20	0
Neutralization Control		+	

CONCLUSION: QUANTO is effective at 1:128 dilution, (1 ounce/gallon) against a broad range of gram-positive and gram-negative hospital pathogens in the presence of 400 ppm hard water (calculated as CaCO₃) and 5% organic bioload (Fetal Bovine Serum).

QUANTO IS FUNGICIDAL

QUANTO was tested for effectiveness against the chosen representative pathogenic fungus, Trichophyton mentagrophytes, a causative agent of athlete's foot, and Candida albicans, which causes infections of the mouth, skin, hands, lungs, and other organs, by the A.O.A.C. Fungicidal Test.

PRODUCT: QUANTO diluted 1:128

TEST METHOD: A.O.A.C. Fungicidal Test, modified in the presence of 400 ppm synthetic hard water (calculated as CaCO₃) and 5% organic bioload (Fetal Bovine Serum).

ORGANISM: Trichophyton mentagrophytes ATCC #9533
Candida albicans ATCC #10231

RESULTS:

Organism	Plate Counts (CFU/Carrier)	# tubes tested	# tubes showing growth
Trichophyton mentagrophytes	2.3x10 ⁶	20	0
Candida albicans	1.4x10 ⁶	20	0
Neutralization		+	

CONCLUSION: QUANTO is an effective fungicide at 1:128. (1 ounce/gallon) in the presence of 400 ppm water (calculated as CaCO₃) and 5% organic bioload (Fetal Bovine Serum).

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QUANTO IS VIRUCIDAL

To simulate in-use conditions, 5% Fetal Bovine Serum (the organic bioload) was added to each virus culture; stainless steel penicylinders were immersed in the virus-organic bioload suspensions for 15 minutes; the penicylinders were removed and dried for 30 minutes at 37°C. Then the contaminated, dried penicylinders were immersed in QUANTO (diluted 1:128 with 400 ppm synthetic hard water calculated as CaCO₃) for 10 minutes at 20°C. The product must demonstrate complete inactivation of the virus. When cytotoxicity is observed in the titer assay system, at least a 3-log reduction in the titer assay must be demonstrated.

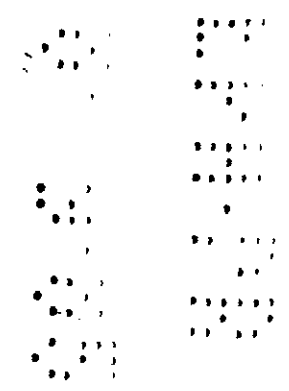
PRODUCT: QUANTO diluted 1:128 with 400 ppm synthetic hard water (calculated as CaCO₃)

RESULTS:

Viral Family	Contains DNA or RNA	Virus plus 5% Fetal Bovine Serum	Titer Reduction
Adenoviridae	DNA	Adenovirus Type 2	5.5 log
Adenoviridae	DNA	Adenovirus Type 4	4.5 log
Herpesviridae	DNA	Herpes Simplex Type 1	6.5 log
Herpesviridae	DNA	Herpes Simplex Type 2	6.0 log
Orthomyxoviridae	RNA	Influenza Type A/Michigan	8.0 log
Togaviridae	RNA	Rubella	5.5 log
Poxviridae	DNA	Vaccinia	6.0 log
Coronaviridae	RNA	Avian Infectious Bronchitis	7.3 log
Orthomyxoviridae	RNA	Avian Influenza Type A/Michigan	7.5 log
Parvoviridae	DNA	Bovine Parvovirus	5.5 log
Herpesviridae	DNA	Infectious Bovine Rhinotracheitis	6.0 log

Neutralization controls = positive

CONCLUSION: QUANTO, diluted 1:128 (1 ounce per gallon) with 400 ppm hard water (calculated as CaCO₃), is VIRUCIDAL to a wide range of VIRUSES contaminated with a 5% organic bioload (Fetal Bovine Serum).



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SHIPPING AND STORAGE SUGGESTIONS

QUANTO is not permanently damaged by freezing, however, avoid freezing if possible. If QUANTO is frozen, allow it to warm to room temperature and agitate mildly before using.

DIRECTIONS FOR USE

QUANTO cleans, deodorizes and disinfects in one step. It may be used for cleaning and disinfecting all washable hard non-porous surfaces such as floors, walls, woodwork, bathroom fixtures, equipment and furniture. QUANTO is used to clean and disinfect glass, chrome, stainless steel, other metal surfaces, porcelain, tile, washable painted or varnished surfaces, as well as resilient tile or terrazzo floors.

Add 1 ounce (30 cc) QUANTO to each measured gallon of water and mix. Apply solution by normal means such as mop, sponge, cloth or brush. Thoroughly wet all surfaces to be cleaned then remove excess solution with wrung out applicator. Treated surfaces should remain wet for 10 minutes. For disinfecting heavily soiled areas, remove gross filth first. Discard solution when it becomes dirty and replace with fresh solution. Use only as directed.

SAFE HANDLING RECOMMENDATIONS

QUANTO concentrate is corrosive, it causes eye damage and skin irritation. Do not get in eyes, on skin or clothing. For added protection, wear protective eye shields and gloves; wash thoroughly with soap and water after handling the concentrate.

In case of skin contact, wash thoroughly with soap and water. For eyes, flush with water for 15 minutes and get prompt medical attention. If swallowed, drink promptly a large quantity of milk, egg whites, gelatin solution or if these are not available, drink large quantities of water. Avoid alcohol. Call a physician immediately. Remove and wash contaminated clothing before reuse.

The QUANTO 1:128 use solution is not considered toxic nor is it classified as corrosive to the skin or eyes. The use solution may cause mild or slight irritation to some people. The use of a good grade of rubber gloves is recommended when using QUANTO use solutions for cleaning by hand. It is good practice to wash thoroughly with soap and water when the cleaning/disinfecting task is finished.

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QUANTO®

Detergente Anti-bacterial

Para Uso En Hospitales
Desinfecta -- Limpia -- Desodoriza

QUANTO es BACTERICIDA (probado contra 16 diferentes bacterias patógenas incluyendo Seudomonas y Estafilococos.), FUNGICIDA (probado contra 2 hongos representativos) y VIRUCIDA (probado contra 11 viruses incluyendo Herpes Simple Tipos 1 y 2, Adenum Tipos 2 y 4, Influenza A/Michigan, Rubella, Vaccinia y otros 4 viruses patógenicos a animales) en la presencia del 5% biocarga orgánica y 400 ppm agua cruda (calculada como CaCO₃) simultáneamente.

QUANTO deberá ser usado únicamente en superficies ambientales duras, no porosas e inanimadas.

DELUCION: 1 a 128 1 onza por galón

Usos Recomendados	Dilucion por Galon	Aplicaciones
limpieza y desinfección general	½ onza	rocear, limpiar con esponja o enjuagar
trapeando pisos con trapo humedo	½ onza	trapear
pisos conductivos	½ onza	trapear o rocear y recoger
muebles	½ onza	esponja o trapo
paredes	½ onza	esponja
estaciones de enfermeras	½ onza	de acuerdo con necesidad y uso
equipo de laboratorio	½ onza	de acuerdo con necesidad y uso
hierro cromado	½ onza	esponja
productos plásticos	½ onza	cepillo fuerte o esponja
accesorios de laboratorio	½ onza	cepillo o esponja
equipo de disposición	½ onza	cepillo duro o esponja
equipo de seguridad	½ onza	cepillo duro o esponja
baños	½ onza	trapeado de pisos, limpieza de paredes y accesorios
cubiertas de colchones	½ onza	limpiar con esponja o trapo
sillas del retrete	½ onza	limpiar con esponja o trapo

NOTA: El tiempo de contacto prescrito es un minimo de 10 minutos en un sola aplicación. Para desinfectar áreas demasiado sucias, remover la suciedad y depósitos de tierra luego mojar las superficies a fondo. La solución de uso recomendado se usa una vez y se descarta.

EPA Reg. No. 303-92

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QUANTO®

GERMICIDAL DETERGENT
E.P.A. Reg. No. 303-92
GENERAL HOSPITAL USE

The standard use-dilution for germicidal cleaning with Quanto is a 1:128 solution. Equivalent measures are 1 ounce per gallon, 12 ounces per standard 12-gallon mopping tank or 6 ounces per 6-gallon bucket of water. Rinsing is not necessary unless floors are to be waxed or polished. Instruments should be cleaned and rinsed according to recommended procedure. Solution should be renewed as often as soil conditions require.

1. Quanto will be used in the general house-cleaning of the hospital.
2. Administrative offices and admitting offices, medical records library, laboratory department, pharmacy, x-ray department, visitor lounges and lobby areas should be damp mopped with Quanto solution daily.
3. Main lobby, main corridor, wing corridors and emergency rooms should be damp mopped with Quanto solution early in the morning.
4. All patient rooms should be damp mopped with Quanto solution daily.
5. All bathrooms, wash bowls and fixtures in patient rooms and baths should be wiped thoroughly with Quanto solution daily.

6. Public bathrooms and locker rooms should be cleaned thoroughly with Quanto solution daily. The floors and fixtures should be mopped or wiped down with Quanto solution twice daily.

7. The dietary department should be cleaned thoroughly. Floors should be damp mopped with Quanto solution daily. Food carts are to be wiped down with Quanto solution. Avoid contamination of food. Clean and disinfect garbage cans and adjacent areas with Quanto.

8. All other areas not mentioned should be damp mopped once daily.

9. Mops used for Quanto solution should be clean for each day's use and not used for any other purpose.

10. Isolation areas are to be flooded or mopped daily with Quanto solution and equipment and fixtures disinfected as directed by department heads responsible.

Quanto's one-step action disinfects and cleans in 400 ppm hard water (calculated as CaCO_3) and 5% organic serum simultaneously.

Quanto has been proven effective against 11 gram negative and 5 gram positive bacteria, 2 fungi and 11 viruses including Herpes Simplex Types 1 and 2, Adenovirus Types 2 and 4, Influenza A/Michigan, Rubella, Vaccinia and 4 other viruses pathogenic to animals.

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procedures for use of

QUANTO®

GERMICIDAL DETERGENT

E.P.A. Reg. No. 303-92
OPERATING SUITE

The standard use-dilution for germicidal cleaning with Quanto is a 1:128 solution. Equivalent measures are 1 ounce per gallon, 12 ounces per standard 12-gallon mopping tank or 6 ounces per 6-gallon bucket of water. Rinsing is not necessary unless floors are to be waxed or polished. Instruments should be cleaned and rinsed according to recommended procedure. Solution should be renewed as often as soil conditions require.

1. Quanto will be used in the housecleaning of the entire operating suite including equipment at all times.
2. Equipment, such as operating tables, instrument tables, basins, racks and lights will be wiped down daily with Quanto solution, more often when necessary.
3. Floors are to be thoroughly cleaned with Quanto solution after each operation.

4. Walls of operating rooms should be wiped down with Quanto solution monthly unless conditions warrant the use of Quanto solution more often.
5. The operating suite shall be thoroughly cleaned with Quanto solution once each week.
6. Conductive floors shall be machine scrubbed once a week using Quanto solution. If possible, pick up with vacuum, then rinse with standard Quanto solution.
7. Mops used for Quanto solution shall be clean for each day's use and not used for other purposes.

Quanto's one-step action disinfects and cleans in 400 ppm hard water (calculated as CaCO_3) and 5% organic serum simultaneously.

Quanto has been proven effective against 11 gram negative and 5 gram positive bacteria, 2 fungi and 11 viruses including Herpes Simplex Types 1 and 2, Adenovirus Types 2 and 4, Influenza A/Michigan, Rubella, Vaccinia and 4 other viruses pathogenic to animals.

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QUANTO[®]
GERMICIDAL DETERGENT
E.P.A. Reg. No. 303-92
DELIVERY ROOM SUITE

The standard use-dilution for germicidal cleaning with Quanto is a 1:128 solution. Equivalent measures are 1 ounce per gallon, 12 ounces per standard 12-gallon mopping tank or 6 ounces per 6-gallon bucket of water. Rinsing is not necessary unless floors are to be waxed or polished. Instruments should be cleaned and rinsed according to recommended procedure. Solution should be renewed as often as soil conditions require.

1. Quanto solution will be used in the house-cleaning of the entire delivery room suite.
2. Floors in the delivery room should be cleaned thoroughly with Quanto solution after each delivery.
3. All equipment, such as delivery tables, instrument tables, basins, racks and lights should be wiped down daily with Quanto solution.
4. Walls of delivery room are to be wiped down every other day with Quanto solution.
5. Labor rooms, locker rooms and delivery

suite corridors should be damp mopped with Quanto solution daily, more often when necessary.

6. Beds, chairs and other equipment in the delivery suite are to be wiped down with Quanto solution twice a week.
7. All walls and floors in the delivery rooms should be cleaned once each week with Hi-Tor solution, more often when necessary.
8. Walls of the delivery suite other than the delivery room should be wiped with Quanto solution once each month.
9. Conductive floors shall be machine scrubbed once a week with Quanto solution. If possible pick up with vacuum and then rinse with standard Quanto solution.
10. Mops used for Quanto solution should be clean for each day's use and not used for other purposes.

Quanto's one-step action disinfects and cleans in 400 ppm hard water (calculated as CaCO_3) and 5% organic serum simultaneously.

Quanto has been proven effective against 11 gram negative and 5 gram positive bacteria, 2 fungi and 11 viruses including Herpes Simplex Types 1 and 2, Adenovirus Types 2 and 4, Influenza A/Michigan, Rubella, Vaccinia and 4 other viruses pathogenic to animals.

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QUANTO®

GERMICIDAL DETERGENT

E.P.A. Reg. No. 303-92

TERMINAL CLEANING OF
ISOLATION ROOM

The standard use-dilution for germicidal cleaning with Quanto is a 1:128 solution. Equivalent measures are 1 ounce per gallon, 12 ounces per standard 12-gallon mopping tank or 6 ounces per 6-gallon bucket of water. Rinsing is not necessary unless floors are to be waxed or polished. Solution should be renewed as often as soil conditions require.

1. When notified that an isolation room has been vacated, collect supplies and equipment necessary for cleaning the room.
2. Follow all required precautions for personal protection such as gowns, masks and proper hand washing.
3. Mix a solution of Quanto (1 ounce per gallon), and with the solution clean all horizontal surfaces of:
 - a. bed
 - b. overbed table
 - c. bedside cabinets
 - d. bedside lamp
 - e. chairs
4. Clean thoroughly:

- a. windows
- b. venetian blinds
- c. mattress cover and pillow cover
- d. chairs

5. Wash with Quanto solution (1 ounce per gallon) anything else in the room which has a horizontal surface. Change solution as required at any point in the cleaning.
6. Wash with Quanto solution (1 ounce per gallon) any area in the room which shows any visible amount of soil or possible prior contamination.
7. Mop floor with clean mop and Quanto solution (1 ounce per gallon).
8. Clean equipment used and return to proper storage area.

Quanto's one-step action disinfects and cleans in 400 ppm hard water (calculated as CaCO_3) and 5% organic serum simultaneously.

Quanto has been proven effective against 11 gram negative and 5 gram positive bacteria, 2 fungi and 11 viruses including Herpes Simplex Types 1 and 2, Adenovirus Types 2 and 4, Influenza A/Michigan, Rubella, Vaccinia and 4 other viruses pathogenic to animals.

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QUANTO®

GERMICIDAL DETERGENT

E.P.A. Reg. No. 303-92
IN NURSERY

The standard use-dilution for germicidal cleaning with Quanto is a 1:128 solution. Equivalent measures are 1 ounce per gallon, 12 ounces per standard 12-gallon mopping tank or 6 ounces per 6-gallon bucket of water. Rinsing is not necessary unless floors are to be waxed or polished. Instruments should be cleaned and rinsed according to recommended procedure. Solution should be renewed as often as soil conditions require.

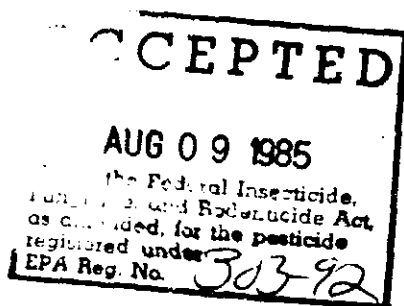
1. Quanto will be used in the housecleaning of the nursery.
2. Floors shall be cleaned thoroughly with Quanto solution at least once daily.
3. Bassinets, scales and other equipment

should be wiped down thoroughly once daily. Surfaces that come in contact with babies should be wiped dry with a clean cloth or rinsed.

4. Walls, windows and equipment are to be wiped down thoroughly with Quanto solution each month or more often when needed.
5. Mops used for Quanto solution should be clean for each day's use and not used for other purposes.

Quanto's one-step action disinfects and cleans in 400 ppm hard water (calculated as CaCO_3) and 5% organic serum simultaneously.

Quanto has been proven effective against 11 gram negative and 5 gram positive bacteria, 2 fungi and 11 viruses including Herpes Simplex Types 1 and 2, Adenovirus Types 2 and 4, Influenza A/Michigan, Rubella, Vaccinia and 4 other viruses pathogenic to animals.



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gm

QUANTO

A 1st Class Performer

*revised
7.10.85*

FOR INFECTION CONTROL

Huntington Laboratories, a leader in germicide research, has formulated a powerful combination of two quaternary ammonium chlorides in a highly concentrated detergent system. The result — *Quanto*

Quanto's powerful formula delivers a 1st class performance to help you in your critical infection control responsibilities.

HELPS IN INFECTION CONTROL

Quanto's excellent cleaner coupled with the powerful twin chain/FMB 1210 quaternary ammonium chlorides provides you with a potent germicide. *Quanto* destroys hospital pathogens on inanimate environmental surfaces which can cause nosocomial infections.

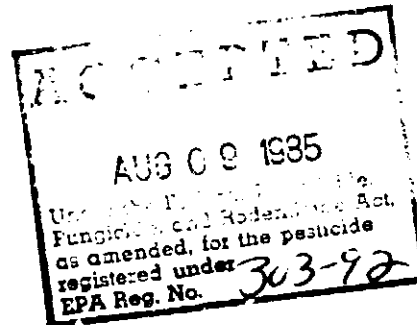
ADDITIONAL TESTING

Quanto meets the minimum requirements by proving effectiveness against *Pseudomonas*, *Staphylococcus*, and *Salmonella*. For demonstrating a wider spectrum of activity, *Quanto* has been proven effective against an additional 13 pathogenic bacteria, including 2 antibiotic resistant strains of Staph — *Quanto* also controls 11 viruses and 2 fungi. This additional testing in the presence of 400 ppm hard water (calculated as CaCO₃) and 5% organic serum provides further evidence of *Quanto's* effectiveness as a broad spectrum one-step disinfectant.

PROVEN EFFECTIVE UNDER SOIL LOADS

Historically, quat efficacy has been questioned under soil loads. *Quanto* has solved this problem. *Quanto* has proven to be a highly effective germicidal detergent under extreme conditions of a combination of 400 ppm hard water (calculated as CaCO₃) and a 5% organic bioload using A.O.A.C. test procedures.

Now you can disinfect and clean your most critical care areas in one step with *Quanto* — a proven hospital germicidal detergent.



EFFECTIVE IN CRITICAL AREAS

Quanto can be used in the Operating Suite, Delivery Room, Isolation Room, Nursery, Burn Unit and Trauma Units. All areas of the hospital can be disinfected, cleaned and deodorized quickly with one product — *Quanto*

EFFECTIVE CLEANING AND DISINFECTING

Quanto is active and effective in a combination of hard water (400 ppm calculated CaCO₃) and organic soils. Now you can clean more areas with confidence.

FOR HOUSEKEEPING

EASE OF USE

Quanto is conveniently packaged in easy-to-handle 1 gallon containers. Available proportioning systems provide economical and accurate dilution.

A simple self-contained 1 ounce pump provides a controlled method for accurate measurement.

The attractive, theft-proof Liquinator cabinet provides an accurate proportioning system for two 1 gallon containers.

A Handi-Grip spray bottle labeled specifically for *Quanto* enables the staff to work with a ready-to-use identifiable product.

Quanto A 1ST CLASS PERFORMER

SAFETY

Quanto containers have easy-to-read directions and have been color coded to provide ready identification.

Quanto does not have a flash point.

DEODORIZES

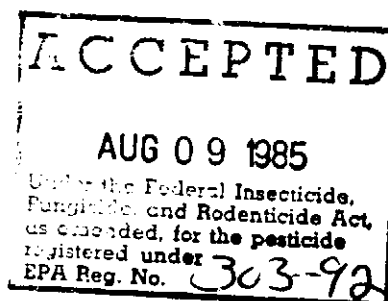
Quanto's simultaneous action kills odor causing germs while it cleans and disinfects. Its lemon-pine fragrance leaves a fresh clean scent that both patients and staff appreciate.

QUANTO IS ECONOMICAL

At 1 ounce per gallon (1:128) *Quanto* makes 128 gallons of solution that disinfects, cleans and deodorizes in all areas when you need it.

CLEANS EASILY WITH NO RINSING

Quanto's one step application easily disinfects and cleans floors, walls, lavatory and patient room fixtures and other inanimate environmental surfaces. The rinsing of floors is not necessary unless the surface is to be waxed or polished.



EDUCATION PROGRAMS

The finest products are only as good as the people who use them.

To assist you in the difficult and time consuming task of training, Huntington provides a complete set of educational and training programs.

Huntington's Professional Sales Representatives are available for personalized in-service programs.

Film strips teaching various housekeeping tasks are available in English and Spanish.

Wall Cards are available in English and Spanish to assist in the proper use of *Quanto*.

Procedures for cleaning and disinfecting the Operating Suite, Delivery Room Suite, Isolation Room, the Nursery and other areas are available.

Technical Product Information

Description

Quanto is a Quaternary ammonium germicidal detergent for use as a general disinfectant cleaner on hard, non-porous, inanimate objects.

Quanto is proven effective against the following hospital pathogens in 400 ppm hard water (calculated as CaCO_3) and 5% organic bioload simultaneously as determined by the appropriate official A.O.A.C. Test methods modified to conform with EPA guidelines.

Gram-Negative Bacteria

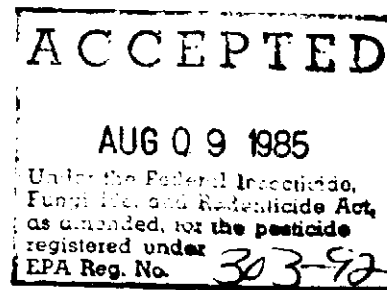
Pseudomonas aeruginosa ATCC 15442
Salmonella choleraesuis ATCC 10708
Enterobacter aerogenes ATCC 13048
Enterobacter cloacae ATCC 27508
Escherichia coli ATCC 11229
Klebsiella pneumoniae ATCC 4352
Proteus mirabilis ATCC 9921
Proteus vulgaris ATCC 8472
Serratia marcescens ATCC 29633
Shigella flexneri ATCC 25929
Shigella sonnei ATCC 20930

Gram-Positive Bacteria

Staphylococcus aureus ATCC 6538
Staphylococcus aureus phage 80 ATCC 14154
Staphylococcus aureus phage 81 ATCC 14154
Staphylococcus epidermidis ATCC 17917
Streptococcus pyogenes clinical

VIRUSES

Adenovirus Type 2
Adenovirus Type 4
Herpes Simplex, Type 1
Herpes Simplex, Type 2
Influenza, Type A/Michigan
Rubella
Vaccinia
Avian Infectious Bronchitis
Avian Influenza, Type A
Bovine Parvovirus



FUNGI

Trichophyton mentagrophytes ATCC 9533

Candida albicans ATCC 10231

PROPERTIES

Active Ingredients

didecyl dimethyl ammonium chloride..... 4.61%

n-Alkyl dimethyl benzyl ammonium chloride..... 9.07%

DILUTION

1:128 - 1 ounce per gallon of water shall dilute clear and be effective in hard or soft water.

SIMULTANEOUS ACTION

Diluted product effective in 400 ppm hard water (calculated as CaCO₃) and 5% organic bioload simultaneously by the appropriate A.O.A.C. Methods modified to conform with EPA guidelines.

STABILITY

Concentrated product shall remain stable for a period of not less than one year from date of manufacture when stored under normal conditions.

PHYSICAL CHARACTERISTICS

Appearance.	Red
Odor.	Lemon-Pine
Typical pH Concentrate.	11.7
Typical pH at 1:128	10.0
Clarity, 1:128 Use-Solution	
In deionized or distilled water . .	Clear
In tap water to 400 ppm hardness. .	Clear
Specific Gravity @25°C.	1.00
Pounds/gallon at 25°C	8.34 lbs
Dispersibility.	soluble in water
Flammability.	no flash point to boil (212°F), tag closed cup

TESTED

AUG 09 1985

Huntington Laboratories, Inc.
Registered under the Fungicide Act
for the pesticide
registered under
EPA Reg. No. 303-92

CONVENIENT PACKAGING

Container: 1 gallon - six per case
5 gallon container

EPA Reg. No. 303-92
Product Number 102714

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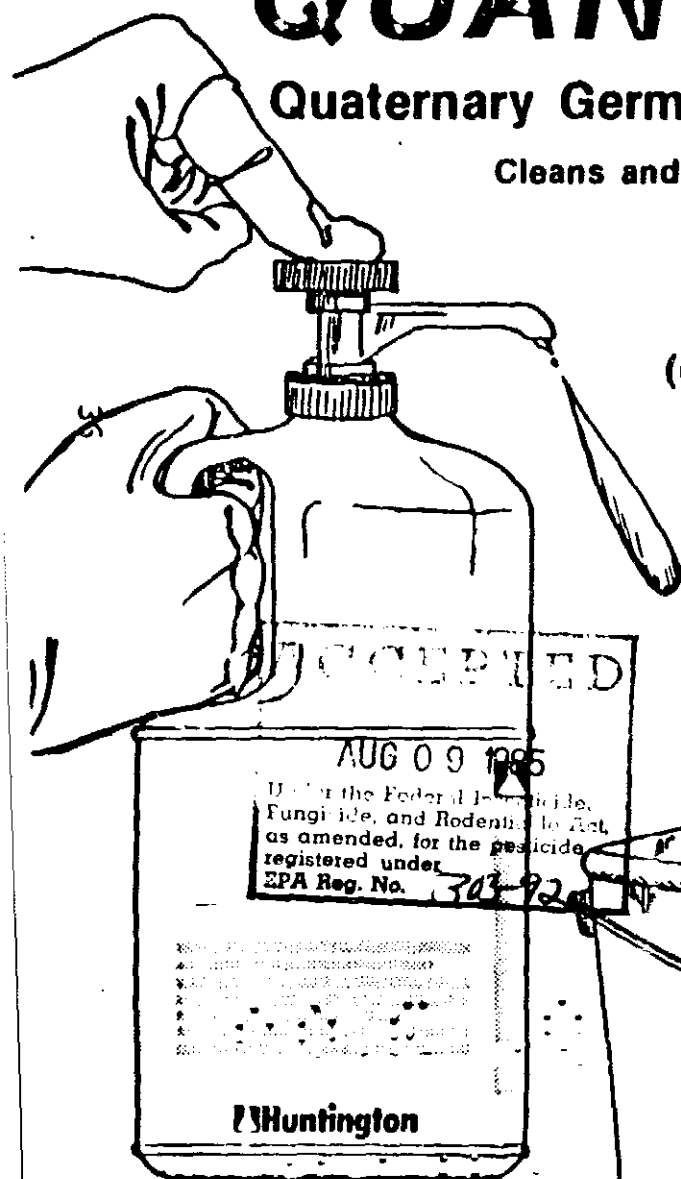
QUANTO[®]

Quaternary Germicidal Detergent

Cleans and Disinfects

Dilute
1 Squirt
(one ounce)

Per
Gallon
Water



— 3 GAL.

— 2 GAL.

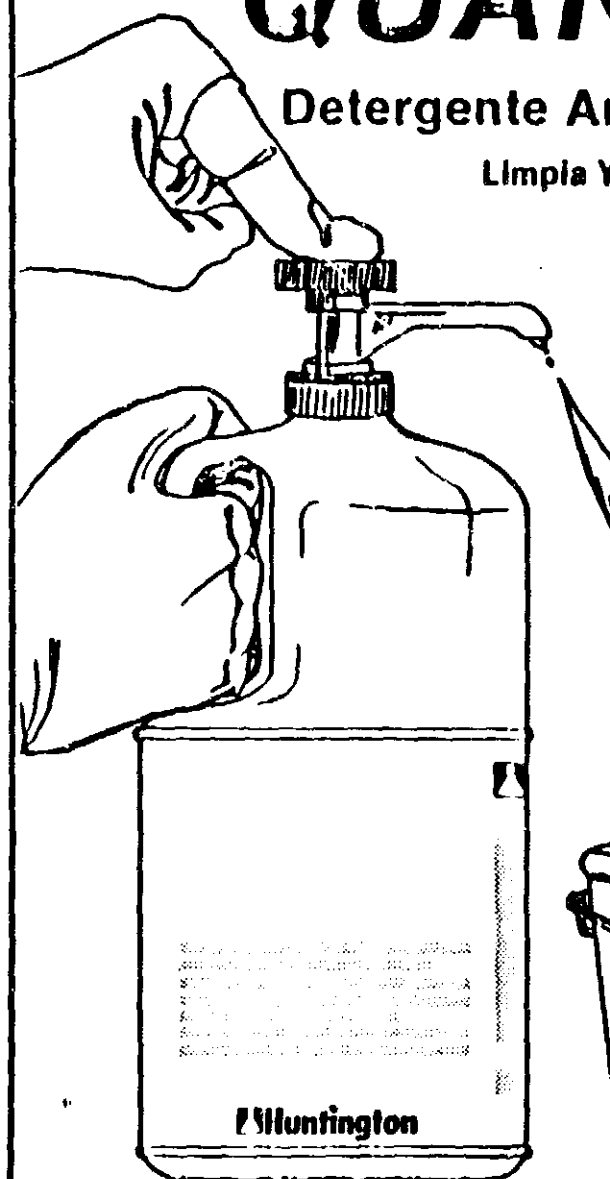
— 1 GAL.

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QUAN

Detergente Antisettico

Limpia y Desinfecta



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