

VERSATILE

Q.T.4 can be used effectively on any non-porous surface that water will not harm — floors, walls, ceilings, woodwork, furniture, fixtures and in food service areas

ELIMINATES ODORS

Q.T.4 has a clean, pleasant fragrance. It leaves surfaces sparkling clean with a fresh, floral scent.

NO HARMFUL RESIDUE

Because Q.T.4 will not combine with minerals in hard water or flooring to form soap scum that dulls colors, catches dirt and causes unsightly buildup, it won't attract dirt to increase wear on the surface after cleaning; nor will it create additional maintenance problems or labor.

NO BUILDUP

Q.T.4 is effective in water up to 400 ppm hardness in the presence of 5% serum contamination so it doesn't leave "Calcium Soap" or soap scum to dull colors, catch dirt or create unsightly soap buildup.

U.L. CLASSIFIED

Q.T.4 is classified by Underwriter's Laboratories, Inc. as to electrical conductivity when used on conductive floors and spontaneous heating, 941P. And it's approved for use with vinyl type electrically conductive flooring. It's also U.L. classified as to slip resistance, 186S.

Virucidal: Influenza A/Brazil, Herpes Simplex and Vaccinia Virus at 1 ounce per gallon use-level on inanimate environmental surfaces.

TECHNICAL DATA — Q.T.4

1. Nonvolatile matter.	19.5% minimum	8. Flash point (T.C.C.).	None
2. Color	Pink	9. Freezing point	Below 30°F.
3. Odor	Floral bouquet	10. Freeze-thaw stability	Stable after agitation
4. Clarity	Clear	11. pH, concentrate	12.3 - 13.3
5. Sediment	None	12. Germicide type	Quaternary (Four)
6. Viscosity, Gardner, 25°C.	A-4 — A-5	13. Synthetic detergent	Present
7. Weight per gallon, 25°C.	8.5 lbs. (3.86 kg.)	14. Soap	None

TEST METHODS:

- 1. ASTM D2834
- 5. ASTM D1290
- 7. ASTM D1475
- 8. ASTM D56
- 11. ASTM E70

APPROVALS:

CLASSIFIED BY UNDERWRITERS LABORATORIES, INC.® AS TO ELECTRICAL CONDUCTIVITY WHEN USED ON CONDUCTIVE FLOORS AND SPONTANEOUS HEATING, 941P. FOR USE WITH ELECTRICALLY CONDUCTIVE FLOORING OF THE VINYL TYPE. ALSO CLASSIFIED AS TO SLIP RESISTANCE.

EPA Reg. No. 1658-25
EPA Est. No. 1658-MO-1

582 (#163)

Manufactured by HILLYARD CHEMICAL COMPANY, St. Joseph, Missouri 64502 U.S.A.

LABEL INFORMATION

ACCEPTED
with COMMENTS
in EPA Letter Dated:

APR 07 1983

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
1658-25 1658-25



EPA Est. No.
1658-MO-1

For Sale For Use and Storage
By Maintenance Personnel Only

#163

Q.T.⁴

CLASSIFIED BY UNDERWRITERS LABORATORIES
INC. AS TO ELECTRICAL CONDUCTIVITY WHEN
USED ON CONDUCTIVE FLOORS AND SPONTANEOUS
HEATING 911P FOR USE WITH ELECTRICALLY
CONDUCTIVE FLOORING OF THE VINYL TYPE
ALSO CLASSIFIED AS TO SLIP RESISTANCE

Disinfectant-Cleaner Sanitizer-Fungicide-Mildewstat-Virucide*
Deodorizer for Hospitals, Institutional and Industrial Use
Effective in hard water up to 400 ppm hardness (calculated as
CaCO₃) in the presence of 5% serum contamination

ACTIVE INGREDIENTS:
Octyl decyl dimethyl ammonium chloride 3.255%
Dioctyl dimethyl ammonium chloride 1.628%
Didecyl dimethyl ammonium chloride 1.628%
Alkyl (C₁₄, 50%, C₁₂, 40%, C₁₆, 10%)
dimethyl benzyl ammonium chloride 4.340%
INERT INGREDIENTS: 89.149%
TOTAL: 100.000%

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

Q.T.⁴ is a proven "one-step" disinfectant - cleaner - sanitizer -
fungicide - mildewstat - virucide which is effective in water up
to 400 ppm hardness in the presence of 5% serum contamination.
Apply Q.T.⁴ to walls, floors and other hard (inanimate) non-
porous surfaces such as tables, chairs, countertops, sinks, tile,
porcelain, and bedframes with a cloth, mop or mechanical spray
device so as to thoroughly wet surfaces. For heavily soiled areas,
a preliminary cleaning is required. Prepare a fresh solution daily
or when use solution becomes visibly dirty.
Disinfection - To disinfect hard, non-porous surfaces, add 1
oz. per gallon of water. Treated surfaces must remain wet for 10
minutes. The activity of Q.T.⁴ has been evaluated in the presence
of 5% serum and 400 ppm hard water by the AOAC use dilution
test and found to be effective against a broad spectrum of gram
negative and gram positive organisms as represented by
Pseudomonas aeruginosa Enterobacter aerogenes
Staphylococcus aureus Salmonella schottmuelieri
Salmonella choleraesuis Streptococcus faecalis
Escherichia coli Shigella dysenteriae
Streptococcus pyogenes Salmonella typhi
Klebsiella pneumoniae Serratia marcescens
Fungicidal Control - Q.T.⁴ is an effective fungicide against
Trichophyton mentagrophytes (the athlete's foot fungus)
when used on surfaces in areas such as locker rooms, dressing
rooms, shower and bath areas, exercise facilities, etc., at 1
oz./gallon.
Mold and Mildew Control. At 1 oz./gallon, Q.T.⁴ will effectively
inhibit the growth of mold and mildew and the odors caused by
them when applied to hard, non-porous surfaces (as indicated in
general instructions above). Allow to dry on surface and repeat
when mildew growth returns.
Virucidal Performance. At 1 oz. per gallon use-level, Q.T.⁴ was
evaluated in the presence of 5% serum and 400 ppm hard water
and found to be effective against the following viruses: Influenza
A/Brazil, Herpes Simplex and Vaccinia on inanimate environ-
mental surfaces.
Sanitizing-Non Food Contact Surfaces (such as floors, walls,
tables, etc.). At 1 oz. per 5 1/2 gallon use-level, Q.T.⁴ is an effective
sanitizer against Staphylococcus aureus and Klebsiella pneumoniae
on hard porous and non porous environmental surfaces. Treated
surfaces must remain wet for 60 seconds

Precautionary Statements
Hazards to Humans and domestic animals
DANGER
KEEP OUT OF REACH OF CHILDREN
Corrosive. Causes eye and skin damage. Do not get in eyes, on
skin, or on clothing. Wear goggles or face shield and rubber
gloves when handling. Harmful or fatal if swallowed or
absorbed through skin. Avoid contamination of food.
STORAGE AND DISPOSAL
DO NOT CONTAMINATE WATER, FOOD, OR FEED BY
STORAGE OR DISPOSAL
OPEN DUMPING IS PROHIBITED
DO NOT REUSE EMPTY CONTAINER
PESTICIDE DISPOSAL
PESTICIDE, SPRAY MIXTURE OR RINSE WATER THAT
CANNOT BE USED ACCORDING TO LABEL INSTRU-
CTIONS MUST BE DISPOSED OF ACCORDING TO FED-
ERAL OR APPROVED STATE PROCEDURES UNDER
SUBTITLE C OF THE RESOURCE CONSERVATION AND
RECOVERY ACT
CONTAINER DISPOSAL
TRIPLE RINSE (OR EQUIVALENT) THEN OFFER FOR
RECYCLING OR RECONDITIONING, OR DISPOSE OF IN
A SANITARY LANDFILL, OR BY INCINERATION IF
ALLOWED BY STATE AND LOCAL AUTHORITIES
GENERAL
CONSULT FEDERAL STATE OR LOCAL DISPOSAL
AUTHORITIES FOR APPROVED ALTERNATIVE PRO-
CEDURES

KEEP OUT OF REACH OF CHILDREN
DANGER
Statement of Practical Treatment
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, gelatine solution; or if these are not avail-
able, 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.
**SEE LEFT PANEL FOR ADDITIONAL
PRECAUTIONARY STATEMENTS**

Manufactured by
HILLYARD CHEMICAL COMPANY, St. Joseph, Missouri 64502

GERMICIDAL-DETERGENT EVALUATION CHART

(Use the space provided to compare germicidal-detergents).

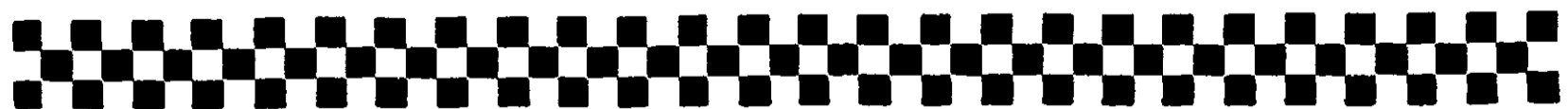
PRODUCT NAME	HILLYARD Q. T. 4 [®]	<hr/>	<hr/>	<hr/>	<hr/>
EPA REGISTRATION NUMBER	1648-25	<hr/>	<hr/>	<hr/>	<hr/>
USE DILUTION (Per label information)	1:128	<hr/>	<hr/>	<hr/>	<hr/>
EFFICIENCY (Per label information)					
GERMICIDAL QUALIFICATIONS	Yes	<hr/>	<hr/>	<hr/>	<hr/>
HARD WATER EFFECTIVENESS (as CaCO ₃)	Yes (400 ppm)	<hr/>	<hr/>	<hr/>	<hr/>
5% BLOOD SERUM	Yes	<hr/>	<hr/>	<hr/>	<hr/>
TUBERCULOCIDAL QUALIFICATIONS	No	<hr/>	<hr/>	<hr/>	<hr/>
HARD WATER EFFECTIVENESS (as CaCO ₃)	No	<hr/>	<hr/>	<hr/>	<hr/>
5% BLOOD SERUM	No	<hr/>	<hr/>	<hr/>	<hr/>
FUNGICIDAL QUALIFICATIONS	Yes	<hr/>	<hr/>	<hr/>	<hr/>
HARD WATER EFFECTIVENESS (as CaCO ₃)	Yes (400 ppm)	<hr/>	<hr/>	<hr/>	<hr/>
5% BLOOD SERUM	Yes	<hr/>	<hr/>	<hr/>	<hr/>
VIRUCIDAL QUALIFICATIONS	Yes	<hr/>	<hr/>	<hr/>	<hr/>
HARD WATER EFFECTIVENESS (as CaCO ₃)	Yes (400 ppm)	<hr/>	<hr/>	<hr/>	<hr/>
5% BLOOD SERUM	Yes	<hr/>	<hr/>	<hr/>	<hr/>
SPRAYABLE (Per label information)	Yes	<hr/>	<hr/>	<hr/>	<hr/>
TOXICOLOGY (Concentrate)					
CAUSES EYE DAMAGE	Yes	<hr/>	<hr/>	<hr/>	<hr/>
CAUSES SKIN DAMAGE	Yes	<hr/>	<hr/>	<hr/>	<hr/>
ORALLY TOXIC (Fatal if swallowed)	Yes	<hr/>	<hr/>	<hr/>	<hr/>
CONTENTS (Per label information)					
PARA-TERTIARY-AMYLPHENOL CONTENT*	N.A.	<hr/>	<hr/>	<hr/>	<hr/>
PARA-TERTIARY-BUTYLPHENOL CONTENT*	N.A.	<hr/>	<hr/>	<hr/>	<hr/>
QUATS (Number)	4 (10.85%)	<hr/>	<hr/>	<hr/>	<hr/>
ENVIRONMENTAL CONSIDERATIONS					
DETERGENT BIODEGRADABLE	Yes	<hr/>	<hr/>	<hr/>	<hr/>
PHOSPHATE CONTENT	None	<hr/>	<hr/>	<hr/>	<hr/>
FLAMMABLE LIQUID*		<hr/>	<hr/>	<hr/>	<hr/>
PAG CLOSED CUP-FLASH POINT	None	<hr/>	<hr/>	<hr/>	<hr/>
pH CONCENTRATE*	12.3 - 13.3	<hr/>	<hr/>	<hr/>	<hr/>
U. L. CLASSIFIED	Yes	<hr/>	<hr/>	<hr/>	<hr/>
(For hazardous locations-conductive floors)					
SLIP RESISTANCE (Per label information)	Yes (U.L.)	<hr/>	<hr/>	<hr/>	<hr/>

*THESE ARE THE PHENOLS which Dr. Guinter Kahn, MD of the University of Colorado Medical Center indicates are probable causative agents in the depigmentation of skin ("Depigmentation of Skin Caused by Phenolic Detergent Germicides" - Arch Derm-Vol. 102, August 1970).

302 North Fourth Street
St. Joseph, Missouri 64502



Hillyard Chemical Company
Telephone (816) 233 1321



07 APR 1983

Hillyard Chemical Company
302 N. Fourth Street
P.O. Box 909
St. Joseph, MO 64502

Attention: Mr. James G. Ross

Gentlemen:

Subject: QT-4
EPA Registration No. 1658-25
Your Submission Dated February 7, 1983

The Product Information Sheet referred to above, submitted in connection with registration under FIFRA is acceptable, provided that you:

1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:

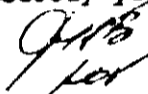
- (a) Replace the word "Infection" with the word "Contamination" as "...Controls/reduces the hazard of cross contamination from environmental surfaces."
- (b) On the first page, in the "Sprayable" paragraph, delete the final phrase "without rinsing" because this would confuse, ~~if~~ not nullify, the U.S.D.A. A-4 classification.
- (c) Replace the word "Eliminates" with the word "Controls" in the heading "Eliminates Odors." Also, in these paragraphs, delete the word "Fresh" in "...Fresh (floral) scent."
- (d) On the "Germicidal Detergent Evaluation Chart" delete the "Para Tertiary Amylphenol" and "Para Tertiary Butyl Phenol" categories, and the attendant paragraph at the bottom of the page, because we cannot allow product comparison comments.
- (e) To prevent misuse of your product on the human body, add the phrase "on hard environmental surfaces" to the heading "Kills Athletes Foot Fungi."
- (f) Delete the word "Harmful" from the heading "No Harmful Residue."

CONCURRENCES							
SYMBOL ▶							
UNAME ▶							
DATE ▶							

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- (g) Delete the word "Proven" from the heading "Proven effective."
 - (h) On page 1: (1) In paragraph 1, right column, delete the word "gentle" from "...powerful gentle detergent...."
2. Submit, for your file, a complete application for amended registration establishing your wish to make this Product Information Sheet part of your product labeling.
 3. Submit five (5) copies of your final printed labeling before you release the product for shipment.
 4. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.
 5. A stamped copy of the labeling is enclosed for your records.
 6. We have made the submitted copies of USDA letters part of your file.

Sincerely yours,



John H. Lee
Product Manager (31)
Disinfectants Branch
Registration Division (TS-767C)

Enclosure

DIS:LEE:DCR-03600:WANG-3044C:mbd:Raven:479-2013:3/12/83



#164

VINDICATOR

ACCEPTED
with COMMENTS
by EPA Letter Dated:

APR 07 1983

Under the Federal Insecticide,
Fungicide, and Fungicide Act
as amended, for the pesticide
registered under EPA Reg. No.
7633-26

The proven, concentrated, one-step, grade one, step disinfectant, detergent, sanitizer, fungicide, mildewstat, virucide that cleans, controls the hazard of virus infection from environmental surfaces even in water with hardness up to 400 ppm and in the presence of 5% serum contamination and leaves a pleasant fragrance... all this protection at an economical one-half ounce per gallon dilution.

Vindicator is especially adapted for use on floors, walls and other hard surfaces where broad spectrum kill is important. It's a proven one-step disinfectant, sanitizer, fungicide, mildewstat, virucide which is effective in hard water (up to 400 ppm) in the presence of 5% serum contamination. You can save time, labor and money maintaining the cleanliness level you require.

VIRUCIDAL, FUNGICIDAL

In a single disinfectant detergent, Vindicator offers effective control against a broad spectrum of bacteria and is virucidal and fungicidal. It's a specially formulated disinfectant designed to meet the stringent disinfectant requirements of hospitals, nursing homes and even operating rooms. It's also an economical disinfectant for nurseries, restrooms, hotels, industrial areas and institutions.



Available in 1 and 5 gallon containers.



GET RID OF FOOT FUNGUS

Vindicator is an effective fungicidal against Trichophyton mentogrophyte (athlete's foot fungus) when used on surfaces in areas like locker rooms, dressing rooms, shower and bath areas, exercise facilities, etc., when used as directed.

CLEANS... DISINFECTS

Vindicator has a powerful synthetic detergent with excellent cleaning properties. It's powerful detergent action quickly frees normal dirt and grime for easy removal, plus it's effective in hard water (400 ppm) in the presence of 5% serum contamination at its normal 1:256 use dilution. Vindicator leaves all floors and inanimate surfaces clean and bright with no soap scum buildup.

PROVEN EFFECTIVE

Vindicator is a proven formulation that leaves your floors and other surfaces clean and bright. It's listed under U.S.D.A. Poultry, Meat, Rabbit and Egg Products inspection program, classification A.

SPRAYABLE

For larger areas you can save time by spraying Vindicator with a mechanical sprayer. Vindicator cleans and disinfects surfaces with a simple spray application without rinsing.

PLEASANT TO USE

Besides its excellent cleaning qualities and broad spectrum protection against problem pathogens, Vindicator is formulated with a pleasant fragrance. It leaves a fresh, clean smell.