



*4-3-72
4297-21*
BROOKS
CLEVELAND, OHIO

Chemicals
TORONTO, ONTARIO

Cross-infection is of major housekeeping concern not only in hospitals, but in schools, institutions, and industry. **Aqua Turge 745-NP** is formulated for this problem area. It both cleans and disinfects effectively when used as directed. Its hard surface disinfecting action will reduce the hazard of cross-infection.

Two ounces of **Aqua Turge 745-NP** per gallon of water will deodorize bathrooms, garbage storage areas, and other areas where bacterial growth can cause mal odors.

WARNING

Keep out of reach of children. Causes severe eye and 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 promptly a large quantity of water. Avoid alcohol. Call a physician immediately.

AQUA TURGE 745-NP

Cleaner - Disinfectant - Deodorizer - Fungicide for Hospital and Institutional Use.

AOAC Phenol Coefficients

Staph. aureus (ATCC No. 6538)	100
Salmonella typhosa (ATCC No. 6539)	50

Active Ingredients

Didecyl dimethyl ammonium chloride	4.5%
Tetrasodium ethylenediamine tetraacetate	2.0%
Sodium carbonate	1.0%
Sodium metasilicate, anhydrous	0.5%

Inert Ingredients

92.0%
100.00%

EPA Registration No.

4297-21

Net Contents:

Gallons

WARNING

KEEP OUT OF REACH OF CHILDREN. SEE LEFT PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

USE DIRECTIONS:

Apply **Aqua Turge 745-NP** to walls, floors and other hard surfaces such as tables, chairs and bed frames with a cloth or mop. For heavily soiled areas, a preliminary cleaning may be required.

For Hospitals & Nursing Homes: Add two ounces per gallon of water.

At two ounces per gallon use-level, **Aqua Turge 745-NP** is effective against *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Salmonella choleraesuis*, *Escherichia coli*, and pathogenic fungi. Germicidal performance against the first four organisms has been confirmed by the AOAC Use-Dilution Test. Fungicidal performance was determined against *T. interdigitale* by the AOAC Fungicidal Test.

For Schools, Institutional and Industrial Uses: Add one ounce per gallon of water.

At one ounce per gallon use-level, **Aqua Turge 745-NP** delivers excellent cleaning and is germicidal. It is effective against *Staphylococcus aureus*, *Salmonella choleraesuis*, *Escherichia coli*, and *Trichophyton interdigitale*, the athlete's foot fungus. The same AOAC tests used above to confirm suitable performance for hospitals were used.

Rinse empty container with water before discarding.

4-3-72

FOR INDUSTRIAL USE ONLY



5-15-72
4297-21

BROOKS
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FOR INDUSTRIAL USE ONLY



ONYX STANDARD

ANALYTICAL PROCEDURE

Page 1 of 2
 No. OSD-41-65R

Date: 4-6-65

ACCEPTED
 5-15-72
 4297-21
 W.T.
 S.P.R.

DETERMINATION OF ACTIVITY OF
 QUATERNARY AMMONIUM COMPOUNDS
 BY THE EPTON PROCEDURE

Purpose

To determine the activity of solutions of quaternary ammonium compounds by an anionic titration and calculating the activity from the titration obtained.

Apparatus

Titration cylinder, 100 ml graduate with glass stopper
 Burettes, 10 or 25 ml capacity, - must be graduated in 0.05 ml or less
 Volumetric flasks, 500 ml and 1,000 ml
 Volumetric pipettes, 10 ml and 15 ml

Reagents

1. Anionic Solution - Sodium Lauryl Sulfate
 (Maprofix 563 - 99.0%) Onyx Chemical Company
 For Standardization of .008 N solution refer to OSR-1
2. Chloroform, Analytical Grade
3. Bromphenol blue indicator solution

Dissolve 0.10 grams of bromphenol blue indicator in 50 ml of ethanol and 50 ml of water.

4. Salt Buffer Solution
dissolve 100 gms. of sodium sulfate and 10 gms. of sodium carbonate in distilled water and dilute to 1,000 ml.

Procedure

1. Accurately weigh the required weight of sample (to the nearest milligram) into a 250 ml. beaker.

$$\frac{50 \times \text{Normality of titrant} \times \text{M.W. of Cationic}}{\% \text{ Expected Activity}} = \text{Grams of Sample Required}$$

2. Add 150 ml. of distilled water. Stir to dissolve, warming on the steam bath if necessary.
3. Quantitatively transfer the sample solution to a 500 ml. volumetric flask and dilute to volume with water at room temperature. Mix well.
4. With a 10 ml. of volumetric pipette, transfer an aliquot of the dilute material to the 100 ml. stoppered graduated cylinder. Into a 50 ml. graduated cylinder add 25 ml. of chloroform and 25 ml. of salt buffer solution and 5 drops of bromphenol blue indicator. Add this mixture to the bottle containing the aliquot of the diluted sample.
5. Titrate the contents of the bottle with the standard anionic solution. At first, add the titrant in one ml. increments, shaking the bottle vigorously for 5-10 seconds after each addition. As the endpoint is approached, indicated by the increasing ease of separation of the layers, add suitable smaller increments of titrant. The endpoint is taken as the point at which the first definite purple color appears in the upper aqueous layer.

Calculation:

$$\% \text{ Activity} = \frac{\text{ml. anionic solution} \times \text{normality} \times \text{mol. wt.} \times 100}{*(\text{Wt. of sample in aliquot}) \times 1000}$$

$$*\text{Weight of sample in aliquot} = \text{Original weight} \times \frac{10}{500}$$