



TECHNICAL DATA

VARIQUAT<sup>®</sup> 80ME  
Germicide

ASHLAND CHEMICAL COMPANY • DIVISION OF ASHLAND OIL, INC.  
BOX 2219, COLUMBUS, OHIO 43216 • (614) 889-3333

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QUATERNARY AMMONIUM GERMICIDAL CONCENTRATE  
(EPA Registration No. 18533-5)

DESCRIPTION: VARIQUAT 80ME germicide is a highly effective quaternary ammonium type used widely where disinfection and sanitizing are important. Here are some examples of applications:

- Hospital walls and floors (See note No. 1 herein)
- Barber and beauticians instruments
- Restroom maintenance
- Food processing plants (See note No. 2 herein)
- Farm and dairy cleaning (See note No. 2 herein)
- Restaurant dishes and glassware (See note No. 2 herein)

VARIQUAT 80ME is an effective sanitizer in hard water as demonstrated by the Official Methods of Analysis of the Association of Official Analytical Chemists (Eleventh Ed. Chapter 4). It was found that 200 ppm (active) of the quaternary killed 99.999% of Escherichia Coli in 30 seconds in water of 500 ppm hardness expressed as calcium carbonate.

It can therefore be stated that VARIQUAT 80ME fulfills the criteria of Appendix F of the Grade A Pasteurized Milk Ordinance 1965 Recommendations of the U.S. Public Health Service in waters up to 500 ppm hardness calculated as CaCO<sub>3</sub>, when tested by the A.O.A.C. Germicidal and Detergent Sanitizers - Official Method.

TYPICAL PROPERTIES

Form	Colorless liquid
pH	Neutral range
Solubility	Freely soluble in water or alcohol
Specific Gravity 25°C	0.93; 7.8 lb/gal
Composition	
Active Ingredients	
Alkyl (50% C <sub>14</sub> , 40% C <sub>12</sub> , 10% C <sub>16</sub> ) dimethylbenzyl ammonium chlorides	80.0%
Ethyl alcohol	12.0%
Inert Ingredient	
Water	8.0%



The effectiveness of germicides has been expressed in terms of "Phenol Coefficients" although "Use Dilution Confirmation Test" is preferred (Official Methods of Analysis of the A.O.A.C., Eleventh Ed. Chapter 4).

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material, when such use and/or handling is contrary to label instructions.

results of both testing methods using VARIQUAT 80ME are shown in this table:

GERMICIDAL EFFECTIVENESS

	Phenol Coefficient		Use Concentration	
	VARIQUAT 80ME	Active Quat.	VARIQUAT 80ME ppm	Active Quat. ppm
Staphylococcus aureus (ATCC 6538)	431	539	500	400
Salmonella typhosa (ATCC 10708)	473	591	----	---
Salmonella choleraesuis	---	---	500	400
Streptococcus hemolyticus	---	---	500	400
Pseudomonas aeruginosa	---	---	1000	800

When making claims for formulated products, distinction should be drawn between the following terms:

Disinfection - Destruction of most vegetative bacteria, but not necessarily bacterial spores.

Sanitization - Reduction of bacteria to a safe level, as determined by public health requirements.

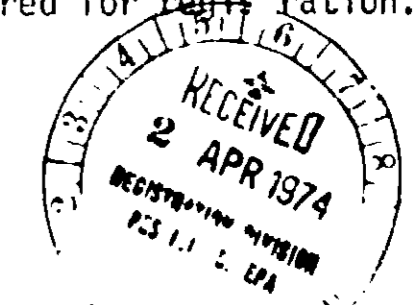
In general, claims for disinfection should only be made where a surface is to be treated after cleaning with a use level of 400 ppm active quaternary or more, on previously cleaned non-porous surfaces. Similarly, sanitizing claims can be made for solutions containing 200 ppm active quaternary.

NOTE NO. 1: VARIQUAT 80ME is not effective against the organism pseudomonas aeruginosa at the disinfectant concentration of 400 ppm (active). Use solutions must contain 800 ppm (active).

Use solutions are prepared by first mixing 12.5 parts (by weight) VARIQUAT 80ME in 87.5 parts water. One ounce of this solution in two gallons of water prepares a disinfecting rinse with 400 ppm active quaternary. One ounce in four gallons of water prepares a sanitizing rinse with 200 ppm active quaternary.

NOTE NO. 2: Sanitizing solutions for use on food contact surfaces may contain no more than 200 ppm active quaternary. The use of sanitizing solutions on food contact surfaces must be followed by adequate draining before contact with food.

All formulated germicidal products must carry an EPA Registration Number on labels when sold in interstate commerce. This is obtained from the Environmental Protection Agency, Pesticides Office, Washington, D.C. 20250. Test data are required for registration.



CAUTION: Special care must be exercised when handling VARIQUAT 80ME. The following precautions must be observed.

DANGER: KEEP OUT OF REACH OF CHILDREN

Corrosive. Causes severe eye and skin damage. Do not get in eyes, on skin or clothing. Wear goggles or face shield and rubber gloves when handling. Harmful or fatal 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 contaminated clothing before reuse.

If swallowed, promptly drink 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.

This product is toxic to fish. Do not contaminate water by cleaning of equipment or disposal of wastes. Keep out of lakes, streams, or ponds.

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