

LONZA

BARQUAT® 4280-Z

Active Ingredients: n-Alkyl (C₁₄, 60%; C₁₆, 30%; C₁₂, 5%; C₁₈, 5%) Dimethyl Benzyl Ammonium Chlorides 40%
 n-Alkyl (C₁₂, 68%; C₁₄, 32%) Dimethyl Ethylbenzyl Ammonium Chlorides 40%
 Ethanol 20%
 100%

55 Gallons/Net Weight: 410 lbs.

EPA Reg. No. 6836-23

DANGER:

Keep Out of Reach of Children

Corrosive. Causes severe 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. 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, 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 as well as oxygen and measures to support breathing manually or mechanically may be needed. If persistent, convulsions may be controlled by the cautious intravenous injection of a short-acting barbiturate drug.

FOR MANUFACTURING USE ONLY

See Technical Bulletin for Recommended Uses

RINSE EMPTY CONTAINER THOROUGHLY WITH WATER
AND DISCARD IT.

LONZA INC. - FAIR LAWN, N. J. - MAPLETON, ILLINOIS

ACCEPTED

11-18-71

UNDER THE FEDERAL INSECTICIDE
ACT OF 1947, AS AMENDED
FOR THE REGISTRATION OF
PESTICIDES

6836-23

PRODUCT INFORMATION

BARQUAT[®]
4250-Z
BARQUAT[®]
4280-Z

BARQUAT 4250 Z and BARQUAT 4280 Z contain a combination of quaternary n-alkyl dimethyl benzyl ammonium chlorides and alkyl dimethyl ethylbenzyl ammonium chlorides. This combination gives excellent performance against bacteria in hard water and in a variety of sanitizers, disinfectants, cleaner-disinfectants, and deodorizing products. Lonza Research and Technical Service facilities can assist in the development, formulation, testing, and registration of your product.

CHEMICAL COMPOSITION:

	BARQUAT	
	4250 Z	4280 Z
Active Ingredients:		
n Alkyl (C ₁₄ , 60%, C ₁₆ , 30%, C ₁₂ , 5%, C ₁₈ , 5%) Dimethyl Benzyl Ammonium Chlorides	25%	40%
n Alkyl (C ₁₂ , 68%, C ₁₄ , 32%) Dimethyl Ethylbenzyl Ammonium Chlorides	25%	40%
Ethanol		20%
Inert Ingredients:		
Water	50%	
	100%	100%
Average Molecular Weight	384	384
EPA Registration Number	6836-26	6836-23

ACCEPTED

12/11/91

AOAC PHENOL COEFFICIENTS

6836-23

The Phenol Coefficients for **BARQUAT 4250-Z/4280-Z** are determined by the Official Methods of Analysis, A.O.A.C., Tenth Edition, 1965, Para. 5.001 - 5.006. They are reported on a 100% active quaternary basis.

10 MINUTE KILLING DILUTION

ORGANISM	ATCC #	BARQUAT		PHENOL COEFFICIENT
		4250Z/4280Z	PHENOL	
Staphylococcus aureus	6538	1:57,500	1:60	958
Salmonella typhosa	6539	1:57,500	1:80	719

AOAC USE-DILUTION TEST

The Use-Dilution procedure for determining the maximum effective dilution for use as a disinfectant is the Official Methods of Analysis, A.O.A.C., Tenth Edition, 1965, Pp. 82-84, Para. 5.007 - 5.011. The following are the effective disinfectant concentrations for **BARQUAT 4250-Z/4280-Z** on an active quaternary basis.

ORGANISM	ATCC #	EFFECTIVE CONCENTRATION
Staphylococcus aureus	6538	450 ppm active quaternary
Salmonella choleraesuis	10708	450 ppm active quaternary

HARD WATER TOLERANCE

The hard water tolerance, or speed of kill, of **BARQUAT 4250-Z/4280-Z** is measured by the AOAC Germicidal and Detergent Sanitizer Method (Official Methods of Analysis, Tenth Edition, 1965, Pp. 87-89, Para. 5.023 - 5.032). **BARQUAT 4250-Z/4280-Z** passes this test against both Staph. aureus (=6538) and E. coli (=11229) at 750 ppm of water hardness. **BARQUAT 4250-Z/4280-Z** can be used for sanitizing food utensils and food-processing equipment. It is approved by the FDA (Fed. Reg. 121,2547) at 200 ppm of active quaternary, and no rinse is required.

FUNGICIDAL PERFORMANCE

BARQUAT 4250-Z/4280-Z was tested against Trichophyton interdigitale (=9129) by the AOAC Fungicidal Test (Official Methods of Analysis of the AOAC, Tenth Edition, 1965 - Sections 5.018 to 5.022). A **BARQUAT 4250-Z/4280-Z** dilution of 1:800 passes against T. interdigitale. This dilution is on a 100% quaternary basis.

RECOMMENDED USE LEVELS

APPLICATION	RECOMMENDED USE LEVELS
General Disinfection	450 ppm active quaternary
General Sanitization	225 ppm active quaternary

PRODUCT REGISTRATION

Disinfectant and sanitizer products containing Quaternary Ammonium Compounds which are shipped in interstate commerce, must be registered with the Environmental Protection Agency. Applications for registration must be accompanied by five copies of your proposed label and should be sent to the Pesticides Regulation Division, Environmental Protection Agency, Washington, D.C. 20250. Some state agencies also require similar registrations.

The Lonza Technical Service Department can assist you with regard to your product registration. A letter of authorization from Lonza is necessary to gain access to the **BARQUAT 4250-Z/4280-Z** registration file.

HANDLING PRECAUTIONS

DANGER: Keep out of Reach of Children. Corrosive. Causes severe 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. 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, 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 as well as oxygen and measures to support breathing manually or mechanically may be needed. If persistent, convulsions may be controlled by the cautious intravenous injection of a short-acting barbituate drug.

Rinse empty container thoroughly with water and discard it.

