

BEST AVAILABLE COPY



FMB 4500-28 QUAT

concentrated germicide

FOR FORMULATING DISINFECTANTS, SANITIZERS, FUNGICIDES, WATER MICROBICIDES, SWIMMING POOL ALGAEKILLERS, MEDICINES, OR FIELD WATER FLOOD AND SALT WATER DISPOSAL PRODUCTS

ACTIVE INGREDIENTS	
1,4-DIAZOLIUM 1,1-DIMETHYL-2,2-DIMETHYLETHANOLAMINE	96.0%
INERT INGREDIENTS	4.0%
Total	100.0%

DANGER: KEEP OUT OF REACH OF CHILDREN.

STATEMENT OF PRACTICAL TREATMENT
 To use this product, thoroughly wash eyes and wash hands with plenty of water for at least 10 minutes. For eyes, use copious amounts of water. Do not get in eyes. If it gets in eyes, flush with plenty of water for at least 15 minutes. Do not use large quantities of water. Do not use if you are pregnant or nursing.

Note: For Protection of the Environment, use coverage labels to contribute to the use of germicide. Measure against a laboratory standard, not against a commercial product. A test may be needed.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
 Irritant to eyes. Avoid contact with eyes. If contact occurs, flush with plenty of water. Do not use if you are pregnant or nursing. Wash thoroughly after use. Do not use if you are pregnant or nursing. Do not use if you are pregnant or nursing.

ENVIRONMENTAL HAZARDS
 This product is highly toxic to aquatic life. Do not discharge into lakes, streams, ponds, or other bodies of water. Do not use in areas where it may come in contact with water. Do not use in areas where it may come in contact with water.

PHYSICAL AND CHEMICAL HAZARDS
 Do not use or store in contact with food. Do not use or store in contact with food. Do not use or store in contact with food.

STORAGE AND DISPOSAL

The product is extremely toxic. Do not store in areas accessible to children or persons unfamiliar with its proper use. Do not store in areas accessible to children or persons unfamiliar with its proper use. Do not store in areas accessible to children or persons unfamiliar with its proper use.

PESTICIDE DISPOSAL
 Pesticide waste is extremely toxic. Do not dispose of in any way. Do not dispose of in any way. Do not dispose of in any way.

CONTAINER DISPOSAL
PLASTIC CONTAINERS
 Completely empty and dry before recycling or disposal. Do not reuse for any other purpose. Do not reuse for any other purpose. Do not reuse for any other purpose.

METAL CONTAINERS
 Empty and dry before recycling or disposal. Do not reuse for any other purpose. Do not reuse for any other purpose. Do not reuse for any other purpose.

INSTRUCTIONS FOR FORMULATION
 Do not use if you are pregnant or nursing. Do not use if you are pregnant or nursing. Do not use if you are pregnant or nursing.

EPA REG NO 47371-22 EPA EST NO 47371-0001 1101
 HBS CHEMICALS DIVISION
 HUNTINGTON, IN 46730 218 238 8100

FMB 4500 QUAT

Concentrated Germicide

FMB 4500 Quat series are designed for formulation of disinfectants, sanitizers, fungicides, water treatment microbicides, swimming pool algaecides, mildewcides, oil field water flood and salt water disposal products. FMB 4500 Quats consist of an effective system of alkyl dimethyl benzyl ammonium chlorides. The multi-purpose quats provide you with an efficient chemical for formulation of disinfectant-sanitizers.

Our Quality Control program consists of checking each and every batch made, chemically and microbiologically to insure the customer that every batch meets our rigid specifications.

<u>Chemical Composition</u>	<u>FMB 4500-5</u>	<u>FMB 4500-8</u>	<u>FMB 4500-28</u>
EPA Registration Number	47371-16	47371-12	47371-22

Active Ingredients:

n-Alkyl (C ₁₄ 60%, C ₁₆ 30%, C ₁₂ 5%, C ₁₈ 5%) dimethyl benzyl ammonium chloride	50%	80%	80%
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Inert Ingredients:

Water	40%	7.5%	X
Ethanol	10%	12.5%	20%

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

The FMB 4500 Quats are effective against the representative gram-positive pathogen *Staphylococcus aureus*, the representative gram-negative pathogen *Salmonella choleraesuis*, and the representative hospital pathogen *Pseudomonas aeruginosa*.

FMB 4500 Quats are designed for formulation of germicides. For example, disinfectant cleaners in hospitals and nursing homes, as disinfectant cleaners for use in schools and colleges, hotels and motels, office buildings, households, medical and dental offices, veterinary clinics, dairy and poultry farms.

FMB 4500 Quats are effective in disinfecting precleaned hard, non-porous surfaces in 10 minutes with a recommended use solution of 550 ppm active quat for hospital use areas and with a recommended use solution of 400 ppm active quat for general use areas.

<u>Organism</u>	<u>FMB Quat</u>	<u>No. of Positives</u>	<u>No. of Carriers Tested</u>
Pseudomonas aeruginosa	550 ppm	0	180
Staphylococcus aureus	400 ppm	0	180
Salmonella choleraesuis	400 ppm	0	180
HOSPITAL DISINFECTION			550 ppm quat
GENERAL OR HOUSEHOLD DISINFECTION			400 ppm quat
SANITIZATION.			200 ppm quat

FMB 4500 Quats are effective against Staphylococcus aureus and E. coli as a sanitizer in 550 ppm hard water as tested by the A.O.A.C. Germicidal and Detergent-Sanitizer Method at 200 ppm quat. In addition to use on food processing equipment and utensils, FMB 4500 Quats may be used on food-contact surfaces in public eating places.

FMB 4500 Quats sanitize precleaned food contact surfaces in one minute with the recommended use solution diluted in water up to 550 ppm water hardness (calculated as CaCO₃) at 200 ppm active quat. FMB 4500 Quats are in compliance with 21 CFR §178.1010 (b) (9) and (c) (6).

FMB 4500 Quats are designed for formulation of sanitizer-cleaners for use in restaurants and bars, dietary areas, dairy and poultry farms, federally inspected meat and poultry processing plants, and food processing plants such as:

For use in plants operating under federally inspected Poultry, Meat, Rabbit, Shell Egg Grading, and Egg Products Inspection Programs. FMB 4500 Quats are for use as a sanitizer on all surfaces not always requiring a rinse. Before using these compounds, food products and packaging materials must be removed from the room or carefully protected. A potable water rinse is not required following use of these compounds on previously cleaned hard surfaces provided that the surfaces are adequately drained before contact with food so that little or no residue remains which can adulterate or have deleterious effect on edible products. A potable water rinse is required following use of these compounds under conditions other than those stated above.

For use in sanitizing dishes, silverware, glasses, and other food utensils at 200 ppm active quat. FMB 4500 Quats may be used on food contact surfaces in public eating places. Do not rinse with potable water.

Food eggs that have been sanitized with FMB 4500 Quat shall be subjected to a thorough potable water rinse only if they are broken for use in the manufacture of egg products.

For use to wash the udders, flanks, and teats of dairy cows. Do not rinse with potable water. Use a fresh towel for each cow. Avoid contamination of wash solution by dirt and soil. Do not dip towel back into wash solution. When solution becomes visibly dirty, discard and provide fresh solution.

FMB 4500 Quats have been tested for ten different nitrosamines including n-nitrosodiethanolamine (NDEL). It was determined that the FMB 4500 Quats contained less than 20 parts per billion (ppb) and for the other nine nitrosamines FMB 4500 Quats contained less than 100 ppb.

Formulators using this product are responsible for EPA registration for their formulated products. For technical service and registration assistance, contact the H&S Chemicals Division at 219/356-8100. A complete registration package is available upon request.

Authorization for use of formulated products in USDA inspected meat, poultry, and food processing plants must be obtained by the formulator from USDA.

DANGER: CORROSIVE: Causes severe eye and skin damage. Do not get in eyes or on skin. Wash contaminated clothing before reuse. Wear goggles or face shield and rubber gloves when handling this product. Harmful or fatal if swallowed. Avoid contamination of food.

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. 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.

Consult the label for other instructions and precautionary statements before use of FMB 4500 Quats.

TOXICITY TEST RESULTS

Eye Irritation: extreme irritation
Primary Skin Irritation: severe, corrosive irritant
Acute Dermal LD50 = 0.8 ml./kg.
Acute Oral LD50 = 0.46 ml./kg.

FMB 4500-5 Quat	EPA Reg. No. 47371-16
FMB 4500-8 Quat	EPA Reg. No. 47371-12
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H&S Chemicals Division
970 East Tipton Street
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219/356-8100

HS-II

Not Reviewed. Registrant claims to be in accordance with reregistration of Pesticide Product Guidance for Phase 2 Response, Page 2.12, Active to Inert Change in Status.