



FMB 451-15 QUAT

concentrated germicide

FOR FORMULATION OF DISINFECTANTS, SANITIZERS, FUNGICIDES, WATER TREATMENT MICROBICIDES, SWIMMING POOL ALGAEKILLERS, MILDEWICIDES, OIL FIELD WATER FLOOD AND SALT WATER DISPOSAL PRODUCTS

ACTIVE INGREDIENTS	
1. 4,4'-DITHYDROQUATRIUM CHLORIDE	50.0%
Ethanol	10.0%
INERT INGREDIENTS	40.0%
Total	100.0%

DANGER: KEEP OUT OF REACH OF CHILDREN

STATEMENT OF PRACTICAL TREATMENT

In case of contact, immediately flush eyes with plenty of water for 15 minutes. Call a physician immediately. In case of contact, wash skin thoroughly with soap and water after handling. Call a physician immediately. 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 convulsions may be needed.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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. Harmful or fatal if swallowed. Avoid contamination of food.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not apply in marine and/or estuarine of fields. Do not discharge into lakes, streams, ponds or public waters unless in accordance with an NPDES permit. For guidance, contact your Regional Office of the Environmental Protection Agency.

PHYSICAL AND CHEMICAL HAZARDS

FMB 451-15 is a cationic germicide. Do not mix with soap or anionic materials.

STORAGE AND DISPOSAL

This product must be kept under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use. 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 rinsate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticides or buried in a safe place away from water supplies.

CONTAINER DISPOSAL

Triple rinse (or equivalent) and dispose in an incinerator or landfill approved for pesticide containers, or bury in a safe place. Consult federal, state, or local authorities for approved alternative procedures such as limited open burning.

INSTRUCTIONS FOR FORMULATION

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

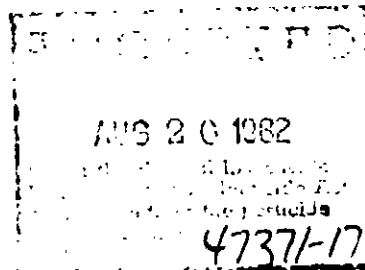
Formulators using this product are responsible for EPA registration for their formulation products. Refer to technical bulletin on FMB 451 Quats for instructions for formulation and other information.

EPA Reg No. 47371

EPA Est. No. 47371 IN 01

H & S CHEMICALS DIVISION
HUNTINGTON, IN 46750

HS-11



Registration

FMB 451 QUAT

FMB 451 Quat series are designed for formulation of disinfectants, sanitizers, fungicides, water treatment microbiocides, swimming pool algaecides, mildewicides, oil field water floater and salt water treatment products. FMB 451 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 chemical analysis on every batch of product, chemically analyzed to meet the customer's exact requirements. That's why you get our rigid specifications.

Chemical Composition	FMB 451-5	FMB 451-8	FMB 451-15	FMB 451-28
EPA Registration Number	47371-11	47371-10	47371-17	47371-18
Active Ingredients:				
n-Alkyl (C14 50%, C12 40%, C16 10%) dimethyl benzyl ammonium chloride	50%	80%	50%	50%
ethanol	7.5%	12.5%	10%	10%
Inert Ingredients:				
Water	42.5%	7.5%	40%	40%

ACCEPTED
 AUG 20 1982
 Under the Federal Insecticide,
 Fungicide, and Rodenticide Act
 as amended, for the pesticide
 registered under
 EPA Reg. No. 47371-17

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

The FMB 451 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 451 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 451 Quats are for disinfecting pre-cleaned hard, non-porous surfaces in 10 minutes with a recommended use solution of 800 ppm active quat for hospital use areas and with a recommended use solution of 400 ppm active quat for general use areas.

Organism	FMB Quat	No. of Positives	No. of Carriers Tested
<i>Pseudomonas aeruginosa</i>	800 ppm	0	180
<i>Staphylococcus aureus</i>	400 ppm	0	180
<i>Salmonella choleraesuis</i>	400 ppm	0	180

AUG 20 1982
 Registration Division (15-767)

HOSPITAL DECONTAMINATION	800 ppm quat
GENERAL OR FRESHWATER DECONTAMINATION	400 ppm quat
SANITIZATION	200 ppm quat

FMB 451 Quats are effective against *Staphylococcus aureus* and *E. coli* as a sanitizer in 750 ppm hard water as tested by the A.O.A.C. Microbial and Bacteriological Sanitizer Method at 200 ppm quat. In addition to use on food processing equipment and utensils, FMB 451 Quats may be used on food-contact surfaces in public eating places.

FMB 451 Quats sanitize food contact surfaces in one minute with the recommended use solution diluted in water up to 750 ppm water hardness (calculated as CaCO_3) at 200 ppm active quat. FMB 451 Quats are in compliance with 21 CFR §178.1010 (b)(9) and (c)(6).

FMB 451 Quats are for use in restaurants, meat, poultry, dairy, egg, and poultry processing plants, and food processing plants such as:

For use in plants operating under the USDA Poultry, Meat, Rabbit, Shell Egg Grading, and Egg Products. FMB 451 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 sanitizing dishes, silverware, glasses, and other food utensils at 200 ppm active. FMB 451 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 451 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 sanitize the udders, flanks, and teats of dairy cows. Do not rinse with potable water. Use a fresh towel for each cow. Avoid contamination of sanitizing solution by dirt and soil. Do not dip towel back into sanitizing solution. When solution becomes visibly dirty, discard and provide fresh solution.

FMB 451 Quats have been tested for ten different nitrosamines including n-nitrosodietanolamine (NDEL). It was determined that the FMB 451 Quats contained less than 20 parts per billion (ppb) NDEL and for the other nine nitrosamines FMB 451 Quats contained less than 200 ppb.

Formulators using this product are responsible for EPA registration and USDA authorization for their formulated products. For technical service and registration assistance, contact the Chemicals Division at 214/356-8199. 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.

HAZARD: 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. Harmful or fatal if swallowed. Avoid contamination of food.

STATEMENT OF PRACTICAL TREATMENT

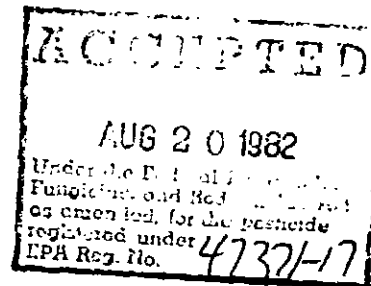
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NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression, and convulsion may be needed.

Consult the label for other instructions and precautionary statements before use of FMB 451 Quats.

FMB 451-5 Quat	EPA Reg. No. 47371-11
FMB 451-8 Quat	EPA Reg. No. 47371-10
FMB 451-15 Quat	EPA Reg. No. 47371-17
FMB 451-28 Quat	EPA Reg. No. 47371-18

H&S Chemicals Division
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Huntington, Indiana 46750
219/356-8100



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