



FMB 3328-28 QUAT concentrated germicide

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

ACTIVE INGREDIENTS:

n-Allyl (C ₁₂ 40%, C ₁₄ 30%, C ₁₅ 5%, C ₁₆ 5%) dimethyl benzyl ammonium chlorides	40.0%
n-Allyl (C ₁₂ 66%, C ₁₄ 32%) dimethyl ethylbenzyl ammonium chlorides	40.0%
INERT INGREDIENTS:	20.0%
Total	100.0%

DANGER: KEEP OUT OF REACH OF CHILDREN

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.

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

ENVIRONMENTAL HAZARDS
This product is toxic to fish. Do not apply in marine and/or estuarine or fresh water. 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
Do not use or store near heat or open flame. FMB 3328-28 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 containers.

PESTICIDE DISPOSAL
Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or residue is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL
FIBER DRUMS WITH LINERS
Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities. If drum is contaminated and cannot be reused, dispose of in the same manner.

METAL CONTAINERS
Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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 of their formulation products. Refer to technical bulletin on FMB 3328 Quats for instructions for formulation and other information.

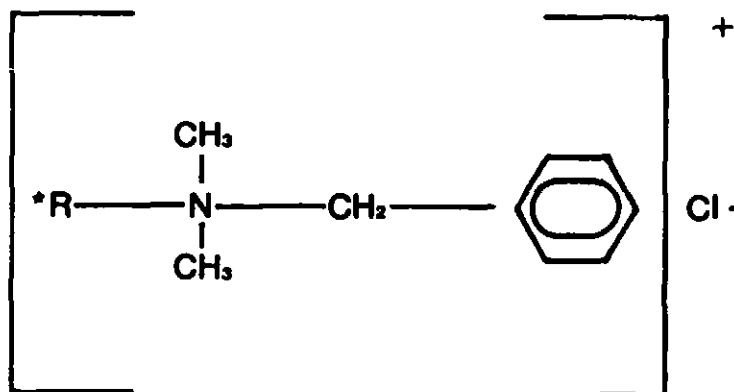
EPA Reg. No. 47371-20 EPA Est. No. 47371-IN-01
H & S CHEMICALS DIVISION
970 E. Tipton St. Huntington, IN 46750 219/356-7073

HL-10111-461589

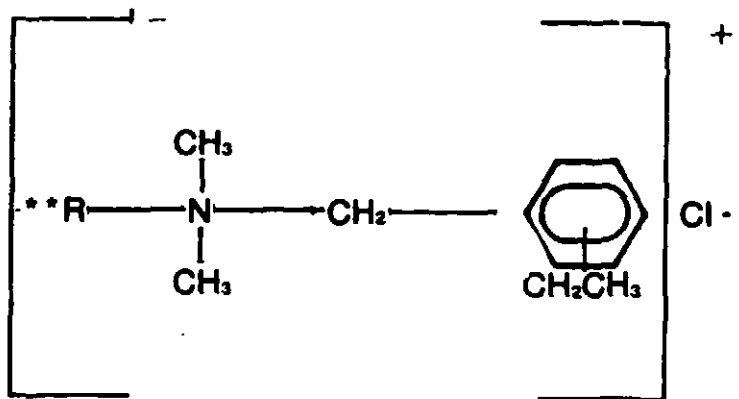
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FMB 3328-8 QUAT

concentrated germicide



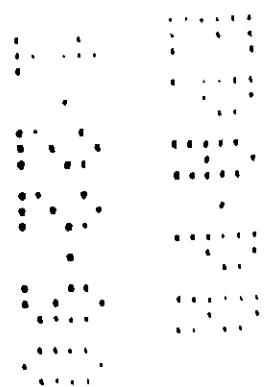
n-alkyl *(C₁₄ 60%, C₁₆ 30%, C₁₂ 5%, C₁₈ 5%)
dimethyl benzyl ammonium chloride



n-alkyl *(C₁₂ 68%, C₁₄ 32%)
dimethyl ethyl benzyl ammonium chloride

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EPA Registration Number 47371-14



FMB 3328 QUAT

Concentrated Germicide

FMB 3328 Quat Series are designed for formulation of disinfectants, sanitizers, fungicides, water treatment microbicides, mildewcides, and swimming pool algae-cides. FMB 3328 Quats consist of a dual quaternary system of alkyl dimethyl benzyl ammonium chlorides and alkyl dimethyl ethylbenzyl ammonium chlorides. This combination of quats working together provides a synergistic effect for an efficient disinfectant-sanitizer system.

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 3328-5</u>	<u>FMB 3328-8</u>	<u>FMB 3328-28</u>
EPA Registration Number	47371-19	47371-14	47371-20

Active Ingredients:

n-Alkyl (C ₁₄ 60%, C ₁₆ 30%, C ₁₂ 5%, C ₁₈ 5%) dimethyl benzyl ammonium chloride	25%	40%	40%
n-Alkyl (C ₁₂ 68%, C ₁₄ 32%) dimethyl ethylbenzyl ammonium chloride	25%	40%	40%

Inert Ingredients:

Water	50%	12.5%	X
Ethanol	X	7.5%	20%

The FMB 3328 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 3328 Quats are technical chemicals designed for formulation of germicides. For example, disinfectant cleaners in hospitals and nursing homes, as disinfectant cleaners for use in schools and colleges, other public institutions and households.

FMB 3328 Quats are for 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 450 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>
<i>Pseudomonas aeruginosa</i>	550 ppm	0	180
<i>Staphylococcus aureus</i>	450 ppm	0	180
<i>Salmonella choleraesuis</i>	400 ppm	0	180

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HOSPITAL DISINFECTION	550 ppm quat
GENERAL OR HOUSEHOLD DISINFECTION	450 ppm quat
SANITIZATION.	200 ppm quat

FMB 3328 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. Germicidal and Detergent-Sanitizer Method at 200 ppm quat. In addition to use on food processing equipment and utensils, FMB 3328 Quats may be used on food-contact surfaces in public eating places.

FMB 3328 Quats are designed for formulation of sanitizer-cleaners for use in restaurants and bars, dietary areas, farms, federally inspected meat and poultry processing plants, and food processing plants.

FMB 3328 Quats are sanitizing precleaned food contact surfaces in one minute with the recommended use solution diluted in water up to 750 ppm water hardness (calculated as CaCO₃) at 200 ppm active quat. FMB 3328 Quats are in compliance with 21 CFR §178.1010 (b) (11) and (c) (8).

For use in plants operating under federally inspected Poultry, Meat, Rabbit, Shell Egg Grading, and Egg Products Inspection Programs. FMB 3328 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.

FMB 3328 Quats are for use sanitizing dishes, silverware, glasses, and other food utensils at 200 ppm active. FMB 3328 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 3328 Quat shall be subjected to a thorough potable water rinse only if they are broken for use in the manufacture of egg products.

FMB 3328 Quats are 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 3328 Quats have been tested for ten different nitrosamines including n-nitrosodiethanolamine (NDEL). It was determined that the FMB 3328 Quats contained less than 20 parts per billion (ppb) and for the other nine nitrosamines FMB 3328 Quats contained less than 100 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 H&S Chemicals Division at 219/356-8100. A complete registration package is available upon request.

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

STATEMENT OF PRACTICAL TREATMENT

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Consult the label for other instructions and precautionary statements before use of FMB 3328 Quats.

TOXICITY TEST RESULTS

Eye Irritation: corrosive irritant
Primary Skin Irritation: severe, corrosive irritant
Acute Dermal LD50 = 2.1 ml./kg.
Acute Oral LD50 = 0.45 ml./kg.

FMB 3328-5 Quat EPA Reg. No. 47371-19
FMB 3328-8 Quat EPA Reg. No. 47371-14
FMB 3328-28 Quat EPA Reg. No. 47371-20

H&S Chemicals Division
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