

**DIRECTIONS FOR USE**  
General Classification

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

D109 detergent disinfectant has been designed specifically for hospitals, nursing homes, schools, food processing plants and other institutions where housekeeping is of prime importance.

**DISINFECTANT-** To disinfect hard inanimate surfaces (such as walls, floors, table tops), add 2 ounces D109 detergent disinfectant per gallon of water. Apply solution with mop, cloth, or sponge, or mechanical sprayer so as to wet thoroughly. Allow to remain wet for 10 minutes and then let air dry.

To disinfect toilet bowls, flush toilet, add 2 ounces D109 detergent disinfectant directly to the bowl water. Swab the bowl completely using a scrub brush or toilet mop, making sure to get under the rim. Let stand for 10 minutes and flush.

For heavily soiled areas, a pre-cleaning step is required and recommended. Prepare a fresh solution for each use.

**MILDEWSTAY-** To control mold and mildew on pre-cleaned, hard non-porous surfaces (such as floors, walls, table tops) add 2 ounces D109 per gallon of water. Apply solution with a cloth, mop, or sponge making sure to wet all surfaces completely. Let air dry. Prepare a fresh solution for each use. Repeat application at weekly intervals or when mildew growth reappears.

**SANITIZATION-** To sanitize previously cleaned and rinsed non-porous food contact surfaces, prepare 200ppm active quaternary D109 solution by adding 2 ounces D109 to 3/4 gallons of water.

To sanitize immobile items (such as tanks, chopping blocks, counter tops), flood the area with 200ppm D109 solution or apply with a cloth or sponge, making sure to wet all surfaces completely for at least 60 seconds. Let air dry. Prepare a fresh solution for each use.

To sanitize mobile items (such as drinking glasses, eating utensils), immerse in 200ppm D109 solution for at least 60 seconds making sure to immerse completely. Remove and let air dry. Prepare a fresh solution daily or more frequently as soil is apparent.

**PRECAUTIONARY STATEMENTS**  
Hazard to Human and Domestic Animals  
**DANGER**

Keep Out of Reach of Children. Causes severe eye and skin damage. Do not get in eyes, on skin or clothing. Harmful if swallowed. Wear goggles or face shield and rubber gloves when handling. Avoid contamination of food. Remove and wash contaminated clothing.

**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. Remove and wash all contaminated clothing before reuse. If swallowed, drink milk, egg whites, gelatin solution or if these are not available, drink large quantities of water. Call a physician.

**NOTE TO PHYSICIAN**

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

**D109 DETERGENT DISINFECTANT**  
**HOSPITAL STRENGTH**

Cleaner	Disinfectant
Detergent	Fungicide (against
Deodorizer	Pathogenic fungi)
Sanitizer	Virucide*
Mildewstat	(on hard inanimate
	surfaces)

**ACTIVE INGREDIENTS:**  
n-Alkyl (60% C<sub>14</sub>, 30% C<sub>16</sub>, 5% C<sub>12</sub>, 5% C<sub>18</sub>) dimethyl benzyl ammonium chloride ..... 2.250  
n-Alkyl (68% C<sub>12</sub>, 32% C<sub>14</sub>) dimethyl ethylbenzyl ammonium chloride ..... 2.250  
**INERT INGREDIENTS:** ..... 92.500

**TOTAL** 100.000

EPA REG. NO. 46438-9

**KEEP OUT OF REACH OF CHILDREN**  
**DANGER**

See side panels for additional precautionary and first aid statements.

UNION CHEMICAL COMPANY  
TEMPLE MILLS, MD 20031

**NET CONTENTS:**

**ONLY FOR SALE TO, USE, AND STORAGE BY SERVICEPERSONS**

**ACCEPTED**  
47744-2  
JUN 21 1982  
Under the Federal Insecticide, Fungicide, and Plant Disease Act, as amended, for the pesticide registered under EPA Reg. No. 46438-9

D109 is a phosphate free concentrated detergent disinfectant which provides effective cleaning, deodorizing, disinfection, and sanitization. D109 detergent disinfectant has been designed specifically for hospitals, nursing homes, schools, food processing plants and other institutions where housekeeping is of prime importance in controlling the hazard of cross contamination.

D109 when diluted at the rate of 2 ounces per gallon of water is an effective disinfectant against the organism *Pseudomonas aeruginosa* and meets all requirements for hospital use. When used as directed, D109 is formulated to disinfect inanimate hard surfaces such as walls, floors, sink tops, toilet bowls, tables, chairs, telephones and bed frames. For larger areas such as operating rooms, patient care facilities and restrooms, the product is designed to provide both general cleaning and disinfection.

In addition, D109 deodorizes those areas which generally are hard to keep fresh smelling, such as garbage storage areas, empty garbage bins and cans, toilet bowls and any other areas which are prone to odors caused by microorganisms.

**DISINFECTANT-** At 2 ounces per gallon dilution, D109 exhibits effective disinfectant activity against the following:

<i>Pseudomonas aeruginosa</i> PHD-10	<i>Brevibacterium ammoniagenes</i>
<i>Escherichia coli</i>	<i>Streptococcus faecalis</i>
<i>Klebsiella pneumoniae</i>	<i>Shigella dysenteriae</i>
<i>Salmonella schottmulleri</i>	<i>Enterobacter aerogenes</i>
<i>Salmonella choleraesuis</i>	<i>Staphylococcus aureus</i>
<i>Streptococcus salivarius</i>	

At this level the product is also fungicidal against the pathogenic fungi, *Trichophyton mentagrophytes*.

**Virucidal\* Activity:** The product when used on environmental inanimate hard surfaces at 2 ounces per gallon of water exhibits effective virucidal\* activity against Influenza A - H1N1 (representative of the common flu virus), Herpes simplex (causative agent of fever blisters and mononucleosis), Measles virus type 2 (causative agent of upper respiratory infections), and Vaccinia virus (representative of the pox virus group).

Efficacy tests have demonstrated that D109 is an effective bactericide, fungicide, and virucide\* in the presence of organic soil (5% blood serum).

**Mold and Mildewstat-** D109 prevents and controls mold and mildew and the odors they cause on hard non-porous inanimate surfaces.

**SANITIZATION-** When used for sanitization of previously cleaned food equipment or food contact items limit active quaternaries to 200ppm. At this level NO POTABLE WATER RINSE is required. D109 is an effective sanitizer when diluted in water up to 750ppm hardness (CaCO<sub>3</sub>).

**STORAGE AND DISPOSAL**

- DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL
- OPEN DUMPING IS PROHIBITED
- DO NOT REUSE EMPTY CONTAINER

**Pesticide Disposal-** Pesticides that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide or buried in a safe place.

**Container Disposal-** Triple rinse (or equivalent) and dispose in an incinerator or landfill approved for pesticide containers, or bury in a safe place.