**ORCHEM R-82**

**Cleaner – Fungicide – Mildewstat – Virucide* – Deodorizer**

for Hospitals, Institutional and Industrial Use

Effective in hard water up to 400 ppm hardness
(calculated as CaCO₃) in the presence of 5% serum contamination

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**DESCRIPTION**

**ORCHEM R-82** is a one-step Hospital Use disinfectant cleaner that is effective against a broad spectrum of bacteria, is virucidal* [including HIV-1, the AIDS Virus and Hepatitis B Virus and Hepatitis C Virus], fungicidal, and inhibits the growth of mold and mildew, and their odors, when used as directed.

**ORCHEM R-82** is an effective one-step sanitizer-cleaner for use on non-food contact surfaces.

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**PERFORMANCE**

**ORCHEM R-82** is a one-step disinfectant at 1/2 oz. per gallon of water, Bactericidal according to the current AOAC Use-Dilution Test Method and Virucidal* according to the virucidal qualification modified in the presence of 400 ppm hard water plus 5% organic serum against:

**Bacteria:**
- Pseudomonas aeruginosa [Pseudomonas]
- Staphylococcus aureus [Staph]
- Salmonella choleraesuis [Salmonella]
- Acinetobacter baumannii
- Brevibacterium ammoniagenes [Brevibacterium]
- Campylobacter jejuni
- Community Associated Methicillin-Resistant
  - Staphylococcus aureus [CA-MRSA] (NRS384) (USA300)
- Community Associated Methicillin-Resistant
  - Staphylococcus aureus [CA-MRSA] (NRS123) (USA400)
- Enterobacter aerogenes
- Enterococcus faecalis [Enterococcus]
- Enterococcus faecalis - Vancomycin Resistant [VRE]
- Escherichia coli [E. coli]
- ESBL Escherichia coli – [Extended spectrum beta-lactamase producing E. coli]
- Klebsiella pneumoniae [Klebsiella]
- Legionella pneumophilia
- Pseudomonas cepacia [Pseudomonas]
- Salmonella schottmuelleri [Salmonella]
- Salmonella typhi [Salmonella]
- Serratia marcescens [Serratia]
- Shigella dysenteriae [Shigella]
- Staphylococcus aureus - Methicillin-Resistant [MRSA]
- Staphylococcus aureus - Multi-Drug Resistant
  - Resistant – [VISA]
- Streptococcus pyogenes [a cause of scarlet fever]
- Vibrio cholerae

**Viruses:**
- *Adenovirus Type 5 at 1:64 dilution [2 oz. per gallon of water]
- *Adenovirus Type 7 at 1:64 dilution [2 oz. per gallon of water]
- *Hepatitis B Virus [HBV]
- *Hepatitis C Virus [HCV]
- *Herpes Simplex Virus Type 1
- *Herpes Simplex Virus Type 2
- *HIV-1 (AIDS Virus)
- *Human Coronavirus
- *Influenza Type A / Brazil [Influenza]
- *Norwalk Virus
- *Respiratory Syncytial Virus [RSV]
- RotaVirus
- *Vaccina [Pox Virus]

**Animal Viruses:**
- Avian Influenza virus
- Avian Infectious Bronchitis Virus
- Canine Distemper Virus
- Feline Calicivirus
- Newcastle’s Disease Virus
- Pseudorabies Virus
- Fungi:
  - Aspergillus niger
  - Trichophyton mentagrophytes [the Athlete’s Foot Fungus]

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*Note: Virucidal designation includes the following viruses in the presence of 20% serum contamination.

Building Partnerships in Quality, Innovation, and Environmental Responsibility™

4293 Mulhauser Road • Fairfield, Ohio 45014 • (513) 874-9700 • Fax (513) 874-3624
**PROPERTIES**

Appearance: Clear liquid
Odor: Mild
Color: Yellow
Density: ~8.4 lbs./gal.
pH: 12.5-13.5
Phosphorus Content: Nil

**Ingredients:**

<table>
<thead>
<tr>
<th>Active Ingredients:</th>
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<tbody>
<tr>
<td>Octyl decyl dimethyl ammonium chloride ...</td>
</tr>
<tr>
<td>Dioctyl dimethyl ammonium chloride .......</td>
</tr>
<tr>
<td>Didecyl dimethyl ammonium chloride .......</td>
</tr>
<tr>
<td>Alkyl (C14, 50%; C12, 40%; C16, 10%)</td>
</tr>
<tr>
<td>Dimethyl benzyl ammonium chloride ..........</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inert Ingredients:</th>
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<tr>
<td>78.300%</td>
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Total..................................................100.000%

**DIRECTIONS FOR USE**

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

**Preparation of Use-Solution:**
Mix ½ oz. per gallon of water [1:256]. For heavy duty use, mix 2 oz. per gallon of water [1:64]. Use 2 oz. per gallon of water to kill Adenovirus Type 5 and Type 7.

**DISINFECTION / VIRUCIDAL* / FUNGICIDAL / MOLD AND MILDEW CONTROL DIRECTIONS:**
Apply use-solution to hard, nonporous surfaces, thoroughly wetting surfaces with a cloth, mop, sponge, sprayer or by immersion. Treated surfaces must remain wet for 10 minutes. Wipe dry with a cloth, sponge or mop or allow to air dry. For heavily soiled areas, a preliminary cleaning is recommended.

For sprayer applications, use a coarse spray device. Spray 6 - 8 inches from the surface; rub with a brush, sponge or cloth. Do not breathe spray.

Rinse all surfaces that come in contact with food such as countertops, exteriors of appliances, tables and stovetops with potable water before reuse. Do not use on utensils, glassware and dishes.

For fungicidal activity, ORCHEM R-82 is an effective fungicide against Trichophyton mentagrophytes (the athlete’s foot fungus) in areas such as locker rooms, dressing rooms, shower and bath areas and exercise facilities.

**ORCHEM R-82** is a one-step fungicide at ½ oz. per gallon in 250 ppm hard water and 5% serum. At ½ oz. per gallon in 400 ppm hard water, **ORCHEM R-82** must be used on precleaned surfaces.

For mold and mildew: At ½ oz. per gallon, **ORCHEM R-82** will effectively inhibit the growth of mold and mildew and the odors caused by them when applied to hard, nonporous surfaces. Follow disinfection instructions. Repeat treatment every seven days, or more often if new growth appears.

Prepare a fresh solution daily or more often if the solution becomes visibly dirty or diluted.

This product is not for use on medical device surfaces.

**NON-ACID TOILET BOWL AND URINAL DISINFECTANT / CLEANER DIRECTIONS:**
Remove gross filth prior to disinfection.

**From Concentrate:**
Add ½ oz. to the bowl and mix. Brush over exposed surfaces and under the rim, allow to stand for 10 minutes and flush.
DIRECTIONS FOR USE (cont.)

From Use Solution:
Empty toilet bowl or urinal and apply ½ oz. per gallon use-solution to exposed surfaces and under the rim with a cloth, mop, sponge or mechanical spray. Brush or swab thoroughly; allow to stand for 10 minutes and flush.

For Heavy Duty Use:
Empty toilet bowl or urinal and apply 2 oz. per gallon use-solution to exposed surfaces including under the rim with a cloth, mop, sponge or sprayer, brush or swab thoroughly, allow to stand for 10 minutes and flush.

DISINFECTION OF WHIRLPOOL UNITS:
After using the whirlpool unit, drain and refill with fresh water to 2 inches above the highest jet. Add ½ oz. of ORCHEM R-82 for each gallon of fresh water added. Start the pump to circulate the solution. Wash down the sides, deck, any related equipment, and any uncovered surfaces on the unit with a clean swab, brush or sponge. Treated surfaces must remain wet for 10 minutes. After the unit has been thoroughly disinfected, drain the solution from the unit and rinse the disinfected surfaces with fresh water. Wipe dry with a clean sponge or cloth or allow to air dry. Repeat for heavily soiled units.

*KILLS HIV AND HBV AND HCV ON PRE-CLEANED ENVIRONMENTAL SURFACES / OBJECTS PREVIOUSLY SOILED WITH BLOOD / BODY FLUIDS in health care settings or other settings in which there is an expected likelihood of soiling of inanimate surfaces / objects with blood or body fluids, and in which the surfaces / objects likely to be soiled with blood or body fluids can be associated with the potential for transmission of Human Immunodeficiency Virus Type 1 (HIV-1) (associated with AIDS) or Hepatitis B Virus (HBV) or Hepatitis C Virus (HCV).

SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATION AGAINST HIV-1 OR HBV OR HCV ON SURFACES / OBJECTS SOILED WITH BLOOD / BODY FLUIDS.

Personal Protection: Clean-up should always be done wearing protective gloves, gowns, masks and eye protection.

Cleaning Procedure: Blood and other body fluids containing HIV or HBV or HCV must be thoroughly cleaned from surfaces and objects before application of ORCHEM R-82.

Contact Time: Leave surface wet for 1 minute (60 seconds) for HIV-1 and 10 minutes for HBV and HCV with ½ oz. per gallon use-solution. Use a 10-minute contact time for disinfection against all other viruses, bacteria and fungi claimed.

Disposal of Infectious Material: Blood, body fluids, cleaning materials and clothing should be autoclaved and disposed of according to local regulations for infectious waste disposal.

ANIMAL CARE / ANIMAL LABORATORY / KENNELS DISINFECTION DIRECTIONS:
For cleaning and disinfecting hard nonporous surfaces: Equipment used for feeding or watering animals, utensils, instruments, cages, kennels, stables, catteries. Remove all animals and feeds from premises, animal transportation vehicles, crates, etc. Remove all litter, droppings and manure from floors, walls and surfaces of facilities occupied or traversed by animals. Empty all feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use-solution of ½ oz. of ORCHEM R-82 per gallon of water [or equivalent dilution] for a period of 10 minutes. Use 2 oz per gallon of water to kill Adenovirus Type 5 and Type 7. Wipe or allow to air dry. Immerse all animal handling and restraining equipment as well as forks, shovels, and scrapers used to remove litter and manure. Rinse all surfaces that come in contact with food, including equipment used for feeding or watering, with potable water before reuse. Ventilate buildings and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried.

TO CLEAN AND DEODORIZE: Mix ½ oz of ORCHEM R-82 per gallon of water to clean and deodorize surfaces. Apply using a cloth, mop, sponge or sprayer. Wipe or allow to air dry.
DIRECTIONS FOR USE (cont.)

TO SANITIZE NON-FOOD CONTACT SURFACES:
Mix ½ oz. of ORCHEM R-82 per 4 gallons of water to sanitize hard nonporous surfaces. Treated surfaces must remain wet for 60 seconds. Wipe dry with a sponge, mop, or cloth or allow to air dry. Do not use in food preparation, food handling and food storage areas. This product is not to be used on glassware, dishware, cookware or utensils.

Dilution Information
Disinfection (1:256).......................... ½ oz. per gallon of water
............................................................................ [886 ppm active]
Disinfection (1:64) ........................... 2 oz. per gallon of water
......................................................................... [3390 ppm active]
Sanitizer (1:1024)............................ ½ oz. per 4 gallons of water
.................................................................................. [200 ppm active quat]

REGULATORY INFORMATION
EPA Reg. No. 6836-78-48062

HAZARD

KEEP OUT OF REACH OF CHILDREN

DANGER (PELIGRO)

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. Corrosive. Causes irreversible eye damage and skin burns. Do not get in eyes, on skin, or on clothing. Wear protective eyewear (goggles, face shield or safety glasses), protective clothing and protective (rubber or chemical resistant) gloves. Harmful if swallowed and/or if absorbed through the skin. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling poison control center or doctor or going for treatment.

If container size is 5 gallons or larger, the following statement will apply.

ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.
STORAGE AND DISPOSAL

If the container is one gallon or less, the following statement will apply.

Store in original container in areas inaccessible to children. Do not store on side. Avoid creasing or impacting of side walls. Offer for recycling if available or discard in trash.

If the container is greater than one gallon, the following statements will apply.

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage
Do not store on side. Avoid creasing or impacting of side walls.

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

Container Disposal
Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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