Disinfectant and Virucide

Virkon™ S

For use in cleaning and disinfecting industrial, animal and agricultural facilities

Powder Form

Effective against Viruses*, Bacteria, and Fungi

ACTIVE INGREDIENTS
Potassium peroxymonosulfate 21.41%
Sodium chloride 1.50%
OTHER INGREDIENTS 77.09%
Total 100.00%
Equivalent to 9.75% Available Chlorine

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO
See Inside Booklet for Additional Precautions

EPA REG NO 39967-137
EPA EST. NO. 57787-MI-003

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 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a Poison Control Center or doctor for further treatment advice.

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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

HOT LINE NUMBER For 24-hour emergency information on this product, call 866-673-6350.
Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

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

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

Corrosive statement refers to powder only not in use solution.

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.

BROAD SPECTRUM DISINFECTANT:
Virkon™ S is effective against numerous microorganisms affecting animals: viruses*, gram positive and gram negative bacteria, fungi (molds and yeasts – Not Approved for this use in California), and mycoplasma. Efficacy of the 1% solution against bacteria and viruses* was determined in the presence of 400 ppm [200 ppm in California] AOAC hard water and 5% organic material in most cases. The exceptions are noted with qualifiers, e.g., “no hard water,” “no soil load,” and “use 2% solution.”

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

PESTICIDE STORAGE: For pails, jugs, bottles: Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. Retain desiccant canister with product during storage. Do not mix this product with other chemicals.

PESTICIDE DISPOSAL: Pesticide wastes may be 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 instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.
EFFECTIVE AGAINST THE FOLLOWING PATHOGENS: ANIMAL AND ZOONOTIC PATHOGENS

BACTERIA
- Actinobacillus pleuropneumoniae
- Bacillus cereus
- Brucella abortus
- Campylobacter jejuni
- Clostridium perfringens
- Dermatophilus congolensis
- Escherichia coli
- Klebsiella pneumoniae
- Mycoplasma gallisepticum
- Mycoplasma hypopneumoniae
- Pasteurella multocida
- Pseudomonas aeruginosa
- Salmonella enterica
- Salmonella typhimurium
- Shigella sonnei
- Staphylococcus aureus
- Staphylococcus epidermidis
- Streptococcus pyogenes
- Streptococcus suis

Not approved in California for use against the following bacteria:
- Bordetella avium
- Bordetella bronchiseptica
- Fistulous withers (Poll Evil)
- Haemophilus somnus
- Helicobacter pylori
- Listeria monocytogenes
- Leptospira canicola
- Moraxella bovis (Pink Eye)
- Mycoplasma mycoides
- Pseudomonas mallei (Glanders)
- Pseudomonas vulgaris
- Streptococcus equi (Strangles)
- Taylorella equigenitalis
- Treponema hydysenteriae

VIRUSES*
- Avian Influenza Virus
- Avian Laryngotracheitis Virus
- Bovine Adenovirus Type 4
- Canine Adenovirus (Canine Hepatitis)
- Canine Parvovirus
- Equine Herpes Virus (Type 1)
- Equine Herpes Virus (Type 3)
- Equine Influenza Virus (Type A)
- Feline Calicivirus
- Feline Panleukopenia Virus
- Feline Rhinotracheitis Virus
- Foot and Mouth Disease Virus
- Newcastle Disease Virus
- Simian Virus (SV40 Virus)
- Not approved in California for use against the following viruses:
  - Adenovirus Pneumonia
  - African Horse Sickness Virus
  - African Swine Fever Virus
  - (tested with 1% soil load and 342 ppm hard water)
  - Bovine Polyoma Virus
  - Bovine Pseudocowpox Virus
  - Bovine Viral Diarrhea Virus (no hard water)
  - Calf Rotavirus (no hard water)
  - Canine Coronavirus
  - Canine Parainfluenza Virus
  - Chicken Anemia Virus
  - Coital Exantherma Virus
  - Distemper Virus
  - Duck Adenovirus (no hard water)
  - Duck Enteritis Virus
  - Egg Drop Syndrome
  - Adenovirus
  - Equine Influenza Virus
  - Equine Infectious Anemia Virus (Swamp Fever)
  - Equine Arteritis Virus (no hard water)
  - Equine Contagious Abortion Virus
  - Equine Papillomatosis Virus
  - Equine Influenza Virus (The Cough)
  - Feline Herpes Virus
  - Feline Infectious Peritonitis Virus
  - Feline Parvovirus
  - Hog Cholera Virus
  - Infectious Bronchitis Virus
  - Infectious Bursal Disease Virus
  - Infectious Canine Hepatitis Virus
  - Infective Bovine Rhinotracheitis Virus (no hard water)
  - Maedi-Visna Virus
  - Marek's Disease Virus
  - Mouse Parvovirus
  - PCV2 Virus (PMWS)
- Porcine Epidemic Diarrhea Virus
- Porcine Parvovirus
- Porcine Reproductive and Respiratory Syndrome Virus (PRRS)
- Pseudorabies Virus (Aujesky's Disease) (no hard water)
- Rotavirus Diarrhea Virus
- Swine Influenza Virus
- Swine Vesicular Disease Virus
- Transmissible Gastroenteritis Virus (TGE) (no hard water)
- Turkey Herpes Virus (no hard water)
- Turkey Rhinotracheitis Virus
- Vesicular Stomatitis Virus

FUNGI
- Trichophyton mentagrophytes (2%)

Not approved in California for use against the following fungi:
- Aspergillus fumigatus
- Fusarium moniliforme
- Microsporum canis
- Trichophyton spp. (Ringworm)
- Trichophyton spp. (Mud Fever)
**Virkon™ S**
Disinfectant and Virucide

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**DIRECTIONS FOR USE**

Follow General Instructions to remove poultry and/or associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon™ S intended to directly air dry. Rinse waterers and feeders with potable water before reuse.

To achieve the appropriate use-diluted Virkon™ S concentration, fill a container with the volume of water and quantity of powder found in the following table.

Solutions are stable for 7 days. Do not soak metal objects in Virkon™ S for long periods - 10 minutes is maximum necessary contact time. One gallon of solution is sufficient to treat 135 sq. ft. This powder formulation is easily diluted for use in manual or machine operations.

**Virkon™ S DISINFECTANT AND VIRUCIDE DILUTION CHART**

<table>
<thead>
<tr>
<th>Quantity of Water</th>
<th>0.5% Solution††</th>
<th>1% Solution</th>
<th>2% Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Quart</td>
<td>0.15 ounces</td>
<td>0.3 ounces</td>
<td>0.7 ounces</td>
</tr>
<tr>
<td>1 Gallon</td>
<td>0.65 ounces / ½ Scoop</td>
<td>1.3 ounces / 1 Scoop</td>
<td>2.7 ounces / 2 Scoops</td>
</tr>
<tr>
<td>10 Gallons</td>
<td>6.7 ounces / 5 Scoops</td>
<td>13.4 ounces / 10 Scoops</td>
<td>26.7 ounces / 20 Scoops</td>
</tr>
<tr>
<td>50 Gallons</td>
<td>33.4 ounces / 25 Scoops</td>
<td>66.8 ounces / 50 Scoops</td>
<td>133.5 ounces / 100 Scoops</td>
</tr>
</tbody>
</table>

†† The 0.5% solution currently is not approved for use in California.

Measuring cup provided. 1 measuring cup = 1 scoop = 1.3 oz

**DIRECTIONS FOR USE**

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

**GENERAL INSTRUCTIONS – POULTRY AND FARM PREMISES**

1. Remove all poultry or other animals and feed from premises, trucks or other vehicles, coops, crates or other enclosures.
2. Remove all litter droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by poultry or other animals.
3. Empty all troughs, racks, and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate surfaces with the use-diluted disinfecting solution for a period of 10 minutes.
6. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
7. Ventilate buildings, cars, boats, coops, and other closed spaces. Do not house poultry or livestock or employ equipment until treatment has been absorbed, set, or dried.
8. Thoroughly scrub treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent, and rinse with potable water before reuse.

**BOOT DISINFECTION**

Virkon™ S at 1% solution can be used for cleaning and disinfecting boots**.

Boot bath and tray
Place boot bath or tray at entrances to prevent cross contamination from area to area in poultry and farm premises, livestock facilities and stalls, and animal containment areas.

1. Make a 1% solution of Virkon™ S by filling a suitable container with water and Virkon™ S according to the dilution table. Stir thoroughly until fully dissolved. Change the solution every 2 to 3 days or when it becomes visibly soiled.
2. Before application of Virkon™ S solution, rinse or brush footwear surfaces including soles to remove gross filth and heavy soil deposits.
3. Step into the container with boots on and use a clean brush to clean boots with disinfectant solution.
4. Wash boots thoroughly paying close attention to the soles. Surface contact time is 10 minutes.

**Virkon™ S should only be used on water proof or non-porous footwear. Do not use on footwear that is damaged or permeable by water.**
**Virkon™ S**
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**POULTRY AND RATITE PRODUCTION CONTROLS:**
Viruses of Newcastle Disease, Avian Laryngotracheitis and Avian Influenza; Bacteria of Streptococcus pyogenes, Klebsiella pneumoniae, Escherichia coli, Salmonella typhimurium, Salmonella enterica, Pseudomonas aeruginosa, Staphylococcus aureus, Staphylococcus epidermidis and Mycoplasma gallisepticum. Not approved in California for use against the following organisms: Viruses of Infectious Bursal Disease, Infectious Bronchitis Virus, Marek’s Disease, Egg Drop Syndrome, Turkey Herpes Virus, Duck Viral Enteritis; FUNGI (molds and yeasts – Not Approved for this use in California), Aspergillus flavus, Fungi of Aspergillus fumigatus and Bacteria of Bordetella avium, Helicobacter pylori.

**HATCHERIES:** Virkon™ S at 1% solution can be used for cleaning and disinfecting hatchers, setters, evaporative coolers, humidifying systems, ceiling fans, chicken houses, transfer trucks, trays, and plastic chick boxes. Saturate surfaces with a 1% solution of Virkon™ S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**FOGGING (WET MISTING) INSTRUCTIONS – POULTRY AND RATITE PRODUCTION**
Follow General Instructions to remove poultry and/or animals from room to be treated. All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices. Close room off, so fog is confined to room to be treated.

Prepare a Virkon™ S at dilution of 1.0% to 2.0% in water (1:100 to 1:50).

Apply at an application rate of 1 gallon per 430 ft² of floor space. Use a mechanical or plumbed in misting system designed for water-based applications with a droplet size of greater than 50 microns, or a pressure washer/knapsack or tank sprayer to deliver fine mist. Insert the nozzle of the fogging device through a suitable opening in the room. Do not allow people to breathe or contact the fog or to enter the room until the fog has completely settled or exhausted. Do not house animals or use equipment until treatment has dried.

Rinse waterers and feeders with potable water before reuse. Rinse foggers and sprayers with potable water following use.

**Note:** Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long shirt sleeves, and pants.

**BROILER/BREEDER HOUSES:** Follow General Instructions to remove poultry and preclean area to be treated. Spray floors and walls with Virkon™ S at 1% solution. Thoroughly wash waterers and feeders with a 1% solution of Virkon™ S. After contact for 10 minutes, rinse with potable water. Do not house poultry or use equipment until treatment has dried.

**PROCESSING PLANTS:** Spray Virkon™ S at 1% solution to disinfect and clean walls, ceilings and floors. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry.

**SWINE PRODUCTION CONTROLS:** Bacteria of Actinobacillus pleuropneumoniae and Clostridium perfringens, Foot and Mouth Disease virus, Fungi of Trichophyton mentagrophytes (2%). Not approved in California for use against the following organisms: Viruses of Hog cholera, Swine influenza, Porcine Parvovirus, Porcine Reproductive and Respiratory Syndrome Virus (PRRS); Pseudorabies, Rotavirus Diarrhea, African Swine Fever, Fungi of Fusarium moniliforme and Bacteria of Treponema hyodysenteriae.

Follow General Instructions to remove swine and pre-clean area to be treated. Use a 1% solution of Virkon™ S for cleaning and disinfecting farrowing units, nurseries, finisher houses, processing plants, and agricultural production equipment such as trucks, waterproof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon™ S with a...
Follow General Instructions to remove poultry and/or animals from room to be treated. Use a 0.5% -1.0% solution of Virkon™ S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. Not approved in California for fogging at dilutions less than 1%. Fog (wet mist) until the area is moist using automatic foggers according to manufacturer’s use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

**EQUIE PRODUCTION BROAD SPECTRUM EQUINE DISINFECTANT/ DETERGENT/WASH FOR CLEANING AND DISINFECTING STABLES AND EQUIPMENT**

**CONTROLs:** Viruses of Equine herpes virus Type 1 and Type 3 and Equine Influenza. Bacteria of Brucella abortus, Clostridium perfringens, Dermatophilus congolensis (at 2%), Pseudomonas aeruginosa, Salmonella typhimurium and Staphylococcus aureus. Fungi of Trichophyton mentagrophytes (at 2%).

**Not approved in California for use against the following organisms:** Fungi of Fusarium moniliforme. Viruses of African Horse Sickness, Equine Viral Arteritis (Pink Eye), Coital Exantherma, Myeloencephalopathy, Rhinopneumonitis, Equine Contagious Abortion, Equine Papillomatosis, Equine Infectious anemia (Swamp Fever), Adenovirus Pneumonia, Equine Influenza (The Cough) and Rhinitis; Bacteria of Clostridial Diarrhea, Fistulous Withers (Poll Evil), Taylorella equigenitalis, Bordetella bronchiseptica, Streptococcus equi (Strangles) and Pseudomonas mallei (Glanders); Fungi of Dermatophytosis (Ringworm) and Dermatophylosis (Mud Fever).

**APPLICATIONS:** For cleaning and disinfecting all nonporous surfaces, equipment, utensils and instruments in Veterinary practices, kennels, stables, cateries, etc.

**USES:** Stables, Horse Boxes, Box Stalls, Tack, Equipment, and Feed Rooms: Follow general instructions to remove animals from area to be treated. Thoroughly clean and dry (dry clean) surfaces, then wash the area manually or with pressure washer with a 1% Virkon™ S solution, saturating surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**To Clean Blankets, Saddle Pads and Rugs:** Not an approved use in California: Using a 1% solution of Virkon™ S, shampoo by hand or spray lightly with a hand-sprayer and leave to dry. Shake or vacuum to remove residue.

**BOVINE PRODUCTION**

**CONTROLs:** Bovine Adenovirus Type 4, Foot and Mouth Disease Virus, and Fungi of Trichophyton mentagrophytes (2%).

**Not approved in California for use against the following organisms:** Bacteria of Moraxella bovis and Fungi of Fusarium moniliforme. Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Pseudorabies and Bacteria of Haemophilus somnus.

Follow General Instructions to remove livestock and preclean area to be treated. Use a 1% solution of Virkon™ S to clean and disinfect areas associated with bovine housing stabling, hospital quarantine pens, feedlot facilities, and agricultural production equipment: such as trucks, waterproof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon™ S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**FOGGING (WET MISTING) – BOVINE**

Follow General Instructions to remove poultry and/or animals from room to be treated. Use a 0.5% -1.0% solution of Virkon™ S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. Not approved in California for fogging at dilutions less than 1%. Fog (wet mist) until the area is moist using automatic foggers according to manufacturer’s use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

**GREENHOUSE S AND HORTICULTURE**

**REFERENCES:** Virkon™ S, shampoo by hand or spray lightly with a hand-sprayer and leave to dry. Shake or vacuum to remove residue. Not approved use in California: Run a 1% solution of Virkon™ S through evaporative coolers with 1:200 dilution on surfaces that have not been pre-cleaned with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Rinse waterers and feeders with potable water before reuse.

**FOGGING (WET MISTING) – SWINE**

Follow General Instructions to remove poultry and/or animals from room to be treated. Use a 0.5% -1.0% solution of Virkon™ S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. Not approved in California for fogging at dilutions less than 1%. Fog (wet mist) until the area is moist using automatic foggers according to manufacturer’s use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).
COMPANION ANIMALS

CONTROLS: Viruses of Canine Parvovirus and Feline calicivirus; Bacteria of Staphylococcus aureus, Streptococcus pyogenes, Klebsiella pneumoniae, and Pseudomonas aeruginosa. Fungi of Trichophyton mentagrophytes (2%). Not approved in California for use against the following organisms: Viruses of Distemper; Leptospira canicola, Feline parvovirus, Feline herpes; Fungi of Microsporum canis.

APPLICATION: Use a 1% solution of Virkon™ S as a “one step” cleaning and disinfecting procedure (Remove Gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all surfaces, equipment, instruments, utensils and cages, caging systems, within or associated with Veterinary Medical Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animal quarters, grooming and boarding facilities, kennels, catteries and animal transportation vehicles. Saturate surfaces with a 1% solution of Virkon™ S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. Do not immerse metal objects in Virkon™ S for long periods - 10 minutes is maximum contact time.

GREENHOUSES AND HORTICULTURE

Virkon™ S is intended to disinfect inanimate environmental surfaces: such as floors, walls, glasshouse structures, ventilation and other equipment, utensils, trays, and other containers, water systems, evaporative coolers, storage rooms, and vehicles in greenhouses and other horticultural settings prior to introduction or reintroduction of plants, seeds, or soil. Not approved in California for use on ventilation and other equipment and water systems. It is not intended to directly affect agricultural production and must not be applied to plants, seeds, or soil. If necessary, remove or cover these items prior to use of the product.

For surfaces and equipment
1. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
2. Use a dilution of 1:100 or 1.3 oz. Virkon™ S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. Not approved in California for use at 1:50 dilution on surfaces that have not been pre-cleaned with water to remove organic deposits.
3. Apply solution with mop, sponge, power sprayer, or fogger to thoroughly wet all surfaces.
4. Heavy growth of algae or fungi may have to be scrubbed off following application.
5. Reapply as often as needed for control.

For clean non-porous surfaces
Pots, flats, trays: Use a dilution of 1:100 or 1.3 oz. per gallon of clean water. Soak tools to ensure complete coverage.

Work areas: Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 or 1.3 oz. of Virkon™ S per gallon of clean water.

Use a dilution of 1:50 or 2.6 oz. of Virkon™ S per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.

For evaporative coolers: Not approved use in California: Treat existing algae and slime-contaminated surfaces with a 1:100 dilution of Virkon™ S. Treat cooler water every week with a dilution of 1:200 or 0.65 oz. of Virkon™ S for every gallon of cooler water.

Virkon™ S may also be used to disinfect irrigation tanks and lines. Not approved use in California: Run a 1% solution through the system or soak equipment in a 1% solution. Let stand for ten minutes and flush system with clean water after treatment.

FOGGING (WET MISTING) INSTRUCTIONS

GREENHOUSE/HORTICULTURE Use a 0.5% -1.0% solution of Virkon™ S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures.

Not approved in California for fogging at dilutions less than 1%. Fog (wet mist) until the area is moist using
**GENERAL INSTRUCTIONS – DIRECTIONS FOR USE**

Virkon™ S is intended to disinfect inanimate environmental surfaces against the following organism at the dilution rates specified below. If the threat is known and limited to one of the organisms below, Virkon™ S may be used at the following dilution rates:

<table>
<thead>
<tr>
<th>Organism</th>
<th>Dilution Rate</th>
<th>Oz./Gal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PED virus*</td>
<td>1:600</td>
<td>0.215</td>
</tr>
<tr>
<td>PCV2 Virus† (PMWS)</td>
<td>1:200</td>
<td>0.7</td>
</tr>
</tbody>
</table>

*Not approved for this use in California

**EMERGENCY DISEASE CONTROL (ANIMAL HEALTH)**

Disinfection helps to control and prevent the cross-contamination of OIE List A organisms including; Newcastle Disease Virus, Foot and Mouth Disease Virus, African Horse Sickness Virus, Vesicular Stomatitis Virus†, Classical Swine Fever Virus, (Hog Cholera Virus), African Swine Fever Virus, Highly Pathogenic Avian Influenza Virus, Swine Vesicular Disease Virus†, and Mycoplasma mycoides† (Contagious Bovine Pleuropneumonia). Not approved for this use in California.

Use a 1% solution of Virkon™ S to clean and disinfect agricultural facilities and equipment, military facilities and equipment; airport facilities and equipment, port facilities and equipment, rail facilities and equipment, quarantine facilities and equipment, slaughter facilities and equipment, and other shipping facilities and equipment where animals or soils suspected of harboring Foot and Mouth Disease Virus might have been previously present. Within these facilities, treated objects include but are not limited to vehicles, farm equipment (including tractors, ploughing shares, cars and trucks, farm engines, harvesters, loaders, mowers, tillers and slaughter machinery), military equipment (including tanks and troop carriers), and shipping equipment (pallets, bins, and containers).

Spray Virkon™ S at 1% solution to disinfect and clean walls, ceilings, floors, decks, container surfaces, vehicles, wheels, waterproof footwear (such as rubber boots), livestock equipment, utensils and instruments. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

Do not immerse metal objects in Virkon™ S for long periods - 10 minutes is maximum contact time.

**DISINFECTION LIMITED TO SPECIFIC AND KNOWN DISEASE ORGANISM PCV2 VIRUS†**

Not approved for this use in California. The instructions above call for use of a 1% solution for general disinfection. However, Virkon™ S is an effective disinfectant for all hard, non-porous surfaces against the following organism at the dilution rates specified below. If the threat is known and limited to one of the organisms below, Virkon™ S may be used at the following dilution rates:

<table>
<thead>
<tr>
<th>Organism</th>
<th>Dilution Rate</th>
<th>Oz./Gal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCV2 Virus† (PMWS)</td>
<td>1:200</td>
<td>0.7</td>
</tr>
</tbody>
</table>

**USES IN FACILITIES USED FOR TEMPORARY CONFINEMENT OF ANIMALS**

Use a 1% solution of Virkon™ S to clean and disinfect inanimate surfaces associated with facilities used for the temporary confinement of animals. Sites may include, but are not limited to, barns, sheds, stables, pens, cages, and associated access alleys or walkways. Virkon™ S may also be used to clean and disinfect equipment related to the maintenance of animals found at fairs, exhibitions, animal auction yards, animal show/boarding facilities, or other similar agricultural facilities designed for the temporary housing of animals.
To ensure that Virkon™ S does not come in direct contact with animals, feed, or water, remove animals from treatment site and either remove or cover feed and water apparatus. To ensure precise application on inanimate surfaces, Virkon™ S may only be applied using hand-held sprayers, sponges or other absorbent materials.

Do not allow Virkon™ S to pool on surfaces that may be within reach of animals. Do not allow Virkon™ S to come into direct contact with people. Allow Virkon™ S to completely dry prior to housing animals, using equipment, or allowing people to contact treated sites.

This product has demonstrated effectiveness against influenza A virus and is expected to inactivate all influenza A viruses including Pandemic 2009 H1N1 influenza A virus*.

**Using the Hydrofoamer 481 (96oz.)** – How to Make a Concentrated Stock Solution

10lb Pail of Virkon™ S = 160 oz.

(*Not approved for this use in California)

<table>
<thead>
<tr>
<th>Dilution Factor (DF)</th>
<th>Hydrofoamer Tip Color</th>
<th>Calculation</th>
<th>1:100 Dilution Rate (1.3 oz/gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:1</td>
<td>No Tip</td>
<td>_oz/1.3oz x DF x Volume of sprayer in gallons</td>
<td>11.7 oz Virkon™ S/9 scoops Virkon™ S</td>
</tr>
<tr>
<td>14:1</td>
<td>White</td>
<td>_# of scoops x _oz Virkon™ S</td>
<td>13.65 oz Virkon™ S/10.5 scoops Virkon™ S</td>
</tr>
<tr>
<td>16:1</td>
<td>Blue</td>
<td>_oz Virkon™ S/1.3 oz</td>
<td>15.6 oz Virkon™ S/12 scoops Virkon™ S</td>
</tr>
<tr>
<td>32:1</td>
<td>Orange</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>64:1</td>
<td>Purple</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

A Virkon™ S 1:100 solution would be highly concentrated at ratios above 16:1 (not fully soluble), denoted as N/A

Convert your Hydrofoamer from ounces to gallons

32 oz = 0.25 gallon
64 oz = 0.5 gallon
96 oz = 0.75 gallon
128 oz = 1 gallon

Manufactured for: Lanxess Corporation
111 RIDC Park West Drive
Pittsburgh, PA 15275

For information: US/Canada (800) LANXESS
International +1 412 809 1000

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Virkon™ S
Disinfectant and Virucide

For use in cleaning and disinfecting industrial, animal and agricultural facilities

Powder Form

Effective against Viruses*, Bacteria, and Fungi

ACTIVE INGREDIENTS
Potassium peroxymonosulfate 21.41%
Sodium chloride 1.50%
OTHER INGREDIENTS 77.09%
Total 100.00%
Equivalent to 9.75% Available Chlorine

KEEP OUT OF REACH OF CHILDREN
DANGER/PELIGRO
See Inside Booklet for Additional Precautions

EPA REG NO 39967-137
EPA EST. NO. 57787-MI-003

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 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a Poison Control Center or doctor for further treatment advice.

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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

HOT LINE NUMBER For 24-hour emergency information on this product, call 866-673-6350. Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.
**Disinfectant and Virucide**

**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 the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for further treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person take a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

**For 24-hour emergency information on this product, call 1-866-673-6350.**

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

---

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER:** Power is contagious. Causes irreversible eye damage or skin burns. Handle in well-ventilated area. Avoid direct exposure to the skin. Do not get in eyes, on skin or on clothing. Wear clothing that covers the skin and protective clothing. Long sleeve shirt and long pants, cotton plus gloves and chemical resistant goggles such as safety glasses, gowns. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

**Corrosive concern refers to power only in non-use condition.**

**ENVIRONMENTAL HAZARDS:** Do not discharge effluent containing this product into lakes, streams, ponds, ditches, sewers or other water sources 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 environmental treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

---

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:**

In a cool, dry area in tightly closed container. Store out of reach of children. Always store in original container.

**CONTAINER DISPOSAL:**

Nonrefillable container. Do not reuse or refill container. Refer to accompanying labeling for additional precautions and complete directions for use.

---

**BATCH #:**

**PRODUCT CODE: 57764017**

Manufactured for:

Lanxess Corporation
111 RBC Place West Drive
Pittsburgh, PA 15275

For information: US/Canada (900) LANXESS International 11412 809 1000

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## Disinfectant and Virucide

### ACTIVE INGREDIENTS
- Potassium permanganate: 21.41%
- Sodium chloride: 1.50%
- Other ingredients: 77.09%
- Total: 100.00%
- Equivalent to 9.25% Available Chlorine

**KEEP OUT OF REACH OF CHILDREN**

**DANGER / PELIGRO**

See side panel for Precautionary Statements

**Reduced Dye and Fragrance Free**

---

<table>
<thead>
<tr>
<th>REPAIR AGENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.</td>
</tr>
<tr>
<td>IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.</td>
</tr>
<tr>
<td>IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sit or lie down and do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.</td>
</tr>
</tbody>
</table>

Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

For 24-hour emergency information on this product, call 866-073-6350.

**NOTE TO PHYSICIAN:** Probable mucous membrane damage may contraindicate the use of gastric lavage.

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### PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER:** Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or inhaled through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield), Wear protective clothing (long sleeve shirt and long pants), socks plus shoes and chemical-resistant gloves such as water (pood gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

Corrosive statement refers to powder only and not in use solution.

**ENVIRONMENTAL HAZARDS:** Do not discharge effluent containing this product into lakes, streams, ponds, canals, oceans or other waters unless in accordance with the requirements of the National Pollution Discharge Elimination System (NPDES) permits 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**

- Do not concentrate dry, feed, or feed by storage and disposal.
- Pesticide Storage:
  - For pads, jugs, bottles: Store in a cool, dry place in tightly closed containers. Keep out of reach of children. Always replace lid after use. Return container with product during storage. Do not mix this product with other chemicals.
- Pesticide disposal:
  - Pesticide wastes may be hazardous - refer to product label for pesticide disposal instructions.
- Container disposal:
  - Nonrefillable container. Do not reuse or resell this container - refer to product label for container disposal instructions.

---

**BATCH #: PRODUCT CODE:** 57811387

**Net Contents:** 40 Pounds (18.16 Kgs.) (4x10 Pounds)

**Manufactured for:** LANXESS Corporation
111 11th Street
Pittsburgh, PA 15223

**For information:** US/Canada (800) LANXESS International +1 412 808 1000
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**LANXESS 2017_LNX1014_17-26790**

Size: 14" x 5.75" Print: 1/0 BLACK
**Virkon™**

**Disinfectant and Virucide**

**ACTIVE INGREDIENTS**
- Potassium peracetylacetate: 21.41%
- Sodium peracetylacetate: 1.50%
- Other Ingredients: 77.09%

**Total**: 100.00%

**Equivalents**
- Potassium peroxymonosulfate: 9.75% Available Chlorine
- Sodium peracetylacetate: 21.41%
- Chloride: 1.50%

**DANGER / PELIGRO**

**KEEP OUT OF REACH OF CHILDREN**

**Panel for Pesticide Information**: Disinfectant and Virucide

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER**: Power to corrosive. Causes irreversible injury and can cause death. Harmful if swallowed, inhaled, or absorbed through the skin. Do not get in eyes, on skin, or on clothing. Wear protective clothing, including long-sleeved shirt and long pants, chemical resistant gloves and chemical resistant boots. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash clothing before reuse.

**Corrosive statement refers to powder only not in use solution.**

**ENVIRONMENTAL HAZARDS**

**DANGER**: Do not discharge effluent containing this product into streams, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of National 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.

**PESTICIDE STORAGE**

For jugs, bottles: Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. Return desiccant container with product during storage. Do not mix this product with other chemicals.

**CONTAINER DISPOSAL**

Non-refillable container. Do not reuse or refill this container - refer to product label for container disposal.

**BATCH #:**

**PRODUCT CODE:** 57784017

**Manufactured for:** Lanxess Corporation
111 10th Park West Drive
Pittsburgh, PA 15227

**For Information in US/Canada:** (800) LAKKNESS International / 1 812 809 1000

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**FIRST AID**

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

**FOR EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

**IF ON SKIN OR CLOTHING:** Take all contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

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

**SODIUM**

**Potassium**

**Total**

**Statement:**

**DISINFECTION AND VIRUCIDE**

<table>
<thead>
<tr>
<th>Active Ingredient</th>
<th>Weight (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium peracetylacetate</td>
<td>21.41%</td>
</tr>
<tr>
<td>Sodium peracetylacetate</td>
<td>1.50%</td>
</tr>
<tr>
<td>Other Ingredients</td>
<td>77.09%</td>
</tr>
</tbody>
</table>

**Net Contents:** 40 Pounds (18.16 Kgs.) (4x10 Pounds)

**Preparation and Use Directions:**

Refer to accompanying labeling for additional precautions and complete directions for use.

**Manufactured:**
111 10th Park West Drive
Pittsburgh, PA 15275

**For Information:** US/Canada (800) LANXESS International / 1 812 809 1000

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Use a 1% solution of Virkon™ S as a “one step” cleaning following organisms:

- Viruses of Distemper
- Leptospira canicola
- Feline

For cleaning and disinfecting all nonporous surfaces, such as 

- Floors, decks, container surfaces, vehicles, wheels, waterproof footwear
- Barns, pens, stalls, chutes, and other facilities and fixtures occupied or have been previously present.
- Financial operations, office areas, storerooms, feeding areas, or food preparation and warehousing areas
- Boot Bath and Tray

Apply at 1 gallon per 430 ft² of floor area, using a sprayer, fogger, sponges, or other absorbent materials. Change the solution every 2 to 3 days or when it becomes contaminated with organic material. Use a dilution of 1:50 or 2.6 oz. Virkon™ S per gallon of clean water if surfaces need to be thoroughly wet all surfaces. Remove organic deposits.

Use a dilution of 1:100 or 1.3 oz. Virkon™ S per gallon of clean water if surfaces need to be removed residue. Do not mix this product with other chemicals. To ensure that Virkon™ S does not come in direct contact with animals, yards, animal show/boarding facilities, or other similar agricultural equipment as a supplement to normal cleaning and disinfection procedures according to label directions prior to fogging. Fogging is an effective disinfectant for all hard, non-porous surfaces against the organism below, Virkon™ S may be used at

Effective disinfectant for all hard, non-porous surfaces against the following bacteria:

- Bordetella avium
- Salmonella typhimurium
- Escherichia coli
- Dermatophilus congolensis
- T etaprenole hyodysenteriae
- T aylorella equigenitalis
- Canine Coronavirus (no hard water)
- Bovine Viral Diarrhea Virus
- PCV2 Virus (PMWS)
- Maedi-Visna Virus
- Fungi of Fusarium moniliforme. Viruses of African Horse Sickness, Equine Influenza Virus (Type A)
- Canine Hepatitis
- Bovine Adenovirus Type 4
- Microsporum canis
- Pseudorabies Virus (Aujesky’s
- African Swine Fever (Hog Cholera Virus ),
- T reponema hyodysenteriae
- N/A
- N/A
- 13.65 oz Virkon™ S
- 0.3 ounces
- 33.4 ounces / 25 Scoops
- 50 Gallons
- RSL_31/VirkS/10lb/USA/28.08.19/G
- Net Contents:
- 111 RIDC Park West Drive
- LANXESS Corporation
- 22b (0.99g)

**Pesticide Disposal:** Pesticide wastes may be hazardous. Improper disposal of pesticides may present a hazard to public health and the environment. Do not mix this product with other chemicals.

**Pesticide Storage:** For pails, jugs, bottles:
- Follow General Instructions to remove livestock and preclean area to disinfectant and virucide dilution chart.
- Don’t remove residue.
- To ensure that Virkon™ S does not come in direct contact with animals, yards, animal show/boarding facilities, or other similar agricultural equipment as a supplement to normal cleaning and disinfection procedures according to label directions prior to fogging. Fogging is an effective disinfectant for all hard, non-porous surfaces against the following bacteria.

**Disinfectant and Virucide Dilution Chart**

<table>
<thead>
<tr>
<th>Application</th>
<th>Solution Strength</th>
<th>Product Amount</th>
<th>Water Amount</th>
<th>Total Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Cleaning</td>
<td>1:50</td>
<td>13.65 oz</td>
<td>86.35 oz</td>
<td>100 oz</td>
</tr>
</tbody>
</table>

**Manufacturer's Use Directions:** Rinse foggers and sprayers with potable water after treatment.

**Calculation:**

- 1 gallon per 430 ft² of floor area
- 1:50 or 2.6 oz. Virkon™ S per gallon of clean water
- 1:100 or 1.3 oz. Virkon™ S per gallon of clean water

**FIRST AID:**
- IF IN EYES: Rinse with plenty of water for 15–20 minutes. 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 instructed to do so by the Poison Control Center.
- IF ON SKIN: Rinse skin immediately with plenty of water for 15–20 minutes. Call a Poison Control Center or doctor immediately for treatment advice.
- IF INHALED: Move patient to fresh air. If not breathing, give artificial respiration. If breathing has stopped, give CPR immediately. Call a Poison Control Center or doctor immediately for treatment advice.
- IF SWALLOWED: Do not induce vomiting unless instructed to do so by a Poison Control Center or doctor. Call a Poison Control Center or doctor immediately for treatment advice.

**Precautions:**
- For cleaning and disinfecting all nonporous surfaces, such as floors, decks, container surfaces, vehicles, wheels, waterproof footwear.
- For cleaning and disinfecting all nonporous surfaces, such as floors, decks, container surfaces, vehicles, wheels, waterproof footwear.
- Do not immerse metal objects in Virkon™ S for long periods - 10 minutes.
- Use a 1% solution of Virkon™ S as a “one step” cleaning following organisms:
- **Use:** Disinfectant and Virucide
- **Wt.:** 5.8125 w
- **Dimensions:** 2544.5 x 1807.9

22lb label, text searchable copy, not production copy.
Content is the same as previous label, layout and formatting slightly different to allow for text searching. This label is NOT used on the container but is for review purposes only.