

Virkon® S

DISINFECTANT AND VIRUCIDE*

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 peroxymonosulfate21.41%

Sodium Chloride1.50%

OTHER INGREDIENTS77.09%

TOTAL INGREDIENTS.....100.00%

Equivalent to 9.75% Available Chlorine

EPA Reg No. 71654-6

EPA Est. No. 42291-GA-01

KEEP OUT OF REACH OF CHILDREN
DANGER / PELIGRO

NET CONTENTS: 10LB (4.53kg)

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 eye. Call a poison control center or doctor for 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 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.

Call a poison control center or doctor for treatment advice. 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 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas).

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.

STORAGE AND DISPOSAL

PESTICIDE STORAGE: Store out of reach of children.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. 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 1/4 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.

BROAD SPECTRUM DISINFECTANT

Virkon®S Disinfectant and Virucide* 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.”

EFFECTIVE AGAINST THE FOLLOWING PATHOGENS:

ANIMAL AND ZOO NOTIC PATHOGENS

BACTERIA

- Actinobacillus pleuropneumoniae
- Bacillus cereus
- Brucella abortus
- Campylobacter jejuni
- Clostridium perfringens
- Dermatophilus congolensis
- Escherichia coli
- Klebsiella pneumoniae
- Mycoplasma gallisepticum
- 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
- Moraxella bovis (Pink Eye)
- Mycoplasma hyopneumoniae
- Mycoplasma mycoides
- Pseudomonas mallei (Glanders)
- Pseudomonas vulgaris
- Streptococcus equi (Strangles)
- Taylorella equigenitalis
- Treponema hyodysenteriae

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
- 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 Exanthema Virus
- Distemper Virus
- Duck Adenovirus (no hard water)
- Duck Enteritis Virus
- Egg Drop Syndrome Adenovirus
- 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
- Foot and Mouth Disease Virus
- Hog Cholera Virus
- Infectious Bronchitis Virus
- Infectious Bursal Disease Virus
- Infectious Canine Hepatitis Virus
- Infective Bovine Rhinotracheitis Virus (no hard water)
- Leptospira Canicola Virus
- Maedi- Visna Virus
- Marek’s Disease Virus
- Mouse Parvovirus
- PCV2 Virus (PMWS)
- Porcine Parvovirus

- Porcine Reproductive and Respiratory Syndrome Virus (PRRS)
- Pseudorabies Virus (Aujeszky’s Disease) (no hard water)
- Rotaviral 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* DILUTION CHART

Fill container with desired amount of water and add Virkon®S Disinfectant and Virucide* to achieve recommended solution concentration.

Solutions are stable for 7 days. Do not soak metal objects in Virkon®S Disinfectant and Virucide* for long periods - 10 minutes is maximum necessary contact time. One gallon of solution is sufficient to treat 135 sq. ft.

Measuring cup provided.

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Quart	0.15 ounces*	0.3 ounces	0.7 ounces
1 Gallon	0.65 ounces*	1.3 ounces	2.7 ounces
10 Gallons	6.7 ounces*	13.4 ounces	26.7 ounces
50 Gallons	33.4 ounces*	66.8 ounces	133.5 ounces

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

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 feeds 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 recommended 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.

This powder formulation is easily diluted for use in manual or machine operations.

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 choleraesuis*, *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), Fungi of *Aspergillus fumigatus* and Bacteria of *Bordetella avium*, *Helicobacter pylori*.

HATCHERIES: Virkon®S Disinfectant and Virucide* 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.

Virkon®S Disinfectant and Virucide* at 1-2% solution is recommended for use in fogging (wet misting) operations as a supplemental measure, either before or after regular cleaning and disinfecting procedures. Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions.

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

FOR AIR SANITIZING: Not approved for this use in California: Use Virkon®S Disinfectant and Virucide* at 0.5-1% solution, and fog until surfaces are moist. Allow at least 2 hours before entering treated area. Rinse foggers and sprayers with water following use.

PROCESSING PLANTS: Spray Virkon®S Disinfectant and Virucide* at 1% solution to disinfect and clean walls, ceilings and floors.

SWINE PRODUCTION

CONTROLS: Bacteria of *Actinobacillus Pleuropneumoniae* and *Clostridium perfringens*; Fungi of *Trichophyton mentragrophytes* (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, Rotoviral Diarrhea, African Swine Fever, Fungi of *Fusarium moniliforme* Foot and Mouth Disease and Bacteria of *Treponema hyodysenteriae*.

Follow General Instructions to remove swine and preclean area to be treated. Virkon®S Disinfectant and Virucide* at 1% solution is recommended 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.

Virkon®S Disinfectant and Virucide* at 0.5-1% solution is recommended for use in fogging (wet misting) operations or as a supplemental measure either before or 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 water following use.



EQUINE PRODUCTION

BROAD SPECTRUM EQUINE DISINFECTANT/ DETERGENT/WASH FOR CLEANING AND DISINFECTING STABLES, EQUIPMENT, AND AERIAL DISINFECTION

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 Exanthema, Equine Contagious Abortion, Equine Papillomatosis, Equine Infectious anemia (Swamp Fever), Adenovirus Pneumonia, Equine Influenza (The Cough), 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 surfaces, equipment, utensils and instruments in Veterinary practices, kennels, stables, catteries, etc.

USES: Stables, Horse Boxes, Box Stalls, Tack, Equipment, and Feed Rooms: Thoroughly clean and dry [dry clean] surfaces, then wash the area manually or with pressure washer with a 1% Virkon®S Disinfectant and Virucide* solution. Rinse with clean water.

Blankets, Saddle Pads and Rugs: *Not an approved use in California:* Shampoo by hand or spray lightly with a hand-sprayer and leave to dry. Shake or vacuum to remove residue.

Aerial Spraying to control airborne diseases: *Not an approved use in California:* Use a hand or knapsack sprayer with fine setting, or an automatic spraying system. Spray a 1% Virkon®S Disinfectant and Virucide* solution for 2-3 minutes twice daily, first thing in the morning and last thing at night. Rinse sprayers with water after use.

BOVINE PRODUCTION

CONTROLS: Bovine Adenovirus Type 4; Fungi of *Trichophyton mentagrophytes*(2%). *Not approved in California for use against the following organisms:* Bacteria of *Moraxella bovis*, Fungi of *Fusarium moniliforme*. Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Pseudorabies, Foot and Mouth Disease and Bacteria of *Haemophilus somnus*.

Follow General Instructions to remove livestock and pre-clean area to be treated. A 1% solution of Virkon®S Disinfectant and Virucide* is recommended to clean and disinfect areas associated with bovine housing stabling, hospital quarantine pens, feedlot facilities, and agricultural production equipment: such as trucks, water-proof footwear (such as rubber boots), and associated livestock equipment and instruments.

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: 1% solution of Virkon®S Disinfectant and Virucide* is recommended 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, infectious disease wards, quarantine areas, Humane Society facilities, laboratory animal quarters, grooming and boarding facilities, kennels, catteries and animal transportation vehicles.

Do not immerse metal objects in Virkon®S Disinfectant and Virucide* for long periods - 10 minutes is maximum contact time.

EMERGENCY DISEASE CONTROL (ANIMAL HEALTH)

Not approved for this use in California

CONTROLS: OIE List A Disease organisms including Foot and Mouth Disease Virus, African Horse Sickness Virus, Vesicular Stomatitis Virus, Classical Swine Fever Virus (Hog Cholera Virus), African Swine Fever Virus, Newcastle Disease Virus, and Highly Pathogenic Avian Influenza Virus, Swine Vesicular Disease Virus, and *Mycoplasma mycoides* (Contagious Bovine Pleuropneumonia).

A 1% solution of Virkon®S Disinfectant and Virucide* is recommended 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 Disinfectant and Virucide* at 1% solution to disinfect and clean walls, ceilings, floors, decks, container surfaces, vehicles, wheels, water proof footwear (such as rubber boots), livestock equipment, utensils and instruments.

Do not immerse metal objects in Virkon®S Disinfectant and Virucide* for long periods - 10 minutes is maximum contact time.

DISINFECTION LIMITED TO SPECIFIC AND KNOWN DISEASE ORGANISMS

Not approved for this use in California

The instructions above call for use of a 1% solution for general disinfection, however, Virkon®S Disinfectant and Virucide* is effective against the following disease organisms at the dilution rates specified below. If the threat is known and limited to one of the organisms below, Virkon®S Disinfectant and Virucide* may be used at the following dilution rates:

Disease Organism	Dilution Rate	Oz./Gal.
PCV2 Virus (PMWS)	1:200	0.7

USES IN FACILITIES USED FOR TEMPORARY CONFINEMENT OF ANIMALS

A 1% solution of Virkon®S Disinfectant and Virucide* is recommended 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 Disinfectant and Virucide* 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 Disinfectant and Virucide* 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 Disinfectant and Virucide* may only be applied using hand-held sprayers, sponges on other absorbent materials.

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



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The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent.

Note: The information contained in this publication is current as of April, 2018. Please contact LANXESS Corporation to determine if this publication has been revised.

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