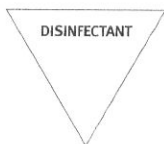




Virkon[®] S

DISINFECTANT AND VIRUCIDE



Tablet and Powder Form

*Effective against Viruses
Bacteria, Fungi*

ACTIVE INGREDIENTS:

Potassium peroxymonosulfate 21.41%

Sodium chloride 1.50%

OTHER INGREDIENTS 77.09%

TOTAL INGREDIENTS: 100.00%

Equivalent to 9.75% Available Chlorine

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 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 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.

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.

KEEP OUT OF REACH OF CHILDREN
DANGER / PELIGRO

See Inside Booklet For Additional Precautionary Statements

US PATENT NO. # 4,822,512
EPA REGISTRATION NO. 71654-6

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-diluted 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 hardwater," "no soil load," and "use 2% solution".

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.

STORAGE AND DISPOSAL: Do not contaminate water, food, or feed by storage and 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 dessicant canister with product during storage. Do not mix this product with other chemicals.

For sachet, pouch, packet, bag: Store in a cool dry place. Keep out of reach of children. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

For spray bottle with in-use solution: Store in a cool dry place. Keep out of reach of children. 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 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.

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
Mycoplasma hyopneumoniae
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 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
Microsporium canis

Trichophyton spp. (Ringworm)
Trichophyton spp. (Mud Fever)

PLANT PATHOGENS

Not approved in California for use against plant pathogens:

- Alternaria solani*
- Botrytis cinera*
- Colletotrichum coccodes*
- Didymella bryoniae*
- Fusarium oxysporum*
- Fusarium solani*
- Penicillium oxalicum*
- Phomopsis sclerotoides*
- Pyrenochaeta lycoopersici*
- Pythium aphanidermatium*
- Rhizoctonia solani*
- Sclerotinia sclerotiorum*
- Thielaviopsis basicola*
- Verticillium dahliae*
- Xanthomonas axonopodis*

VIRKON®S DILUTION CHART

Fill container with desired amount of water and add Virkon®S powder or tablet(s) to achieve solution concentration. For a 1% solution, add one (1) tablet to one pint of water or one sachet to one gallon of water.

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 square feet.

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

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Gallon		1 Sachet	2 Sachets
2 Gallons	1 Sachet	2 Sachets	4 Sachets

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Pint		1 Tablet	2 Tablets
1 Gallon	4 Tablets	8 Tablets	16 Tablets

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, stall, 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 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.

POULTRY PRODUCTION 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 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.

BROILER/BREEDER HOUSES: Follow General Instructions to remove poultry and pre-clean 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; 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 pre-clean area to be treated. Use a 1% solution of Virkon®S Disinfectant and Virucide 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 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.

EQUINE PRODUCTION

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

CONTROLS Viruses of Newcastle 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 Straphylococcus aureus. Fungi of Trichophyton mentragrophytes (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, 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 hard, non-porous surfaces, equipment, utensils and instruments in Veterinary practices, kennels, stables, catteries, 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 Disinfectant and Virucide* 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; Fungi of Trichophyton mentragrophytes(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. Use a 1% solution of Virkon®S Disinfectant and Virucide* 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. 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.

COMPANION ANIMALS

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

APPLICATION: Use a 1% solution of Virkon®S Disinfectant and Virucide* 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 Disinfectant and Virucide* 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, or power sprayer 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 for 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 an*

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.

AQUACULTURE

(Not approved for this use in California): Virkon®S intended to disinfect inanimate environmental surfaces associated with aquaculture including vehicles, nets, boots, waders, dive suits, hoses, brushes and other similar equipment. Virkon®S may also be used in foot dips. Virkon®S must not be applied directly to water.

Equipment used in separate sites, tanks, ponds in aquacultural settings should be disinfected before each new use by soaking for 20-30 minutes in a 1% Virkon®S solution followed by a water rinse.

EMERGENCY DISEASE CONTROL

(ANIMAL HEALTH) *(Not approved for this use in California):* Disinfection helps to control and prevent the cross-contamination of OIE List A 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).

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 harbouring 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, water proof 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 rate specified below. If the threat is known and limited to the organism below, Virkon®S may be used at the following dilution rate:

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

USE 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.

Manufactured for:
E. I. du Pont de Nemours and Company
DuPont Animal Health Solutions
PO Box 80402
Wilmington, DE 19880-0402 USA

Questions? Call 1-800-441-7515
Outside the US, contact: 1-302-774-1000

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