

Master Label

Virkon[®] S
BROAD SPECTRUM DISINFECTANT

For Use in Cleaning and Disinfecting Industrial, Animal and Agricultural Facilities (OPT.)

Effective against Viruses
(including CANINE PARVOVIRUS) ! Bacteria ! Fungi

For Use in Emergency Disease Control (OPT.)

For use in Cleaning and Disinfecting Institutional and Service Facilities including stores, factories, schools, hotels, offices, ships, planes, transportation terminals, supermarkets and food warehouses. (OPT.)

For Use in Emergency Response and On-site Cleanup (emergency response calls, crime scenes, traffic accidents, fires, flood, natural and other disasters) e.g. cars, trucks, ambulances, and similar emergency apparatus, tires, wheels, floors, walls, ceilings, paved surfaces; and equipment such as SCBA, coats, boots, hats, masks, gloves, axes, Jaws of Life and similar emergency equipment.(OPT.)

For Use in Greenhouses, Horticulture, and Aquaculture (OPT.)

ACTIVE INGREDIENTS:

Potassium peroxymonosulfate.....	20.4%
Sodium Chloride.....	1.5%
OTHER INGREDIENTS.....	<u>78.1%</u>
TOTAL.....	100.00%

Equivalent to 9.75% Available Chlorine

<p style="text-align: center;">KEEP OUT OF REACH OF CHILDREN</p> <p style="text-align: center;">DANGER</p> <p style="text-align: center;">See [Back] [Side] Panel[s] [Inside Booklet] for Additional Precautions</p>

Front Panel Continued

FIRST AID

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

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

If Inhaled:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call a Poison Control Center or doctor for further treatment advice.

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:

- 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.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

___ lbs. (__) Net Weight

EPA Reg. No. 62432-1

EPA Est. No. 62432-EN-001

Antec

International

LEADERS IN BIOSECURITY

Manufactured By:

ANTEC INTERNATIONAL LTD.

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Virkon® S is a registered trademark of and manufactured by Antec International Limited
US Patent No. 4822512

[Comment: The list of claims (sites) under “EFFECTIVE AGAINST” may be placed in any order as long as each subheading and its contents remains intact.]

EFFECTIVE AGAINST THE FOLLOWING PATHOGENS:

ANIMAL AND ZOOBOTIC PATHOGENS

BACTERIA

Actinobacillus pleuropneumonia
 Bordetella avium
 Bordetella bronchiseptica
 Campylobacter pyloridis
 Clostridium perfringens
 Dermatophilus congolensis
 Escherichia coli
 Fistulous withers (Poll Evil)
 Haemophilus somnus
 Klebsiella pneumoniae
 Moraxella bovis (Pink Eye)
 Mycobacterium bovis
 Mycoplasma gallisepticum
 Mycoplasma mycoides
 Pasteurella multocida
 Pseudomonas aeruginosa
 Pseudomonas mallei (Glanders)
 Pseudomonas vulgaris
 Salmonella choleraesuis
 Salmonella typhimurium
 Staphylococcus aureus
 Staphylococcus epidermidis
 Streptococcus equi (Strangles)
 Streptococcus pyogenes
 Streptococcus suis
 Taylorella equigenitalis
 Treponema hyodysenteriae

Avian Influenza Virus
 Avian Laryngotracheitis Virus
 Bovine Adenovirus Type 4
 Bovine Polyoma Virus
 Bovine Pseudocowpox Virus
 Bovine Viral Diarrhea Virus
 Calf Rotavirus
 Canine Adenovirus
 Canine Coronavirus
 Canine Parainfluenza Virus
 Canine Parvovirus
 Chicken Anemia Virus
 Coital Exanthema Virus
 Distemper Virus
 Duck Adenovirus
 Duck Enteritis Virus
 Egg Drop Syndrome Adenovirus
 Equine Infectious Anemia Virus (Swamp
 Fever)
 Equine Arteritis Virus
 Equine Herpes Virus (Type 1)
 Herpes Virus Equine (Type 3)
 Hog Cholera Virus
 Equine Contagious Abortion Virus
 Equine Papillomatosis Virus
 Equine Influenza Virus (Type A)
 Equine Influenza Virus (The Cough)
 Feline Calicivirus
 Feline Herpes Virus
 Feline Infectious Peritonitis Virus
 Feline Panleukopenia Virus
 Feline Parvovirus
 Feline Rhinotracheitis Virus
 Foot and Mouth Disease Virus
 Infectious Bronchitis Virus
 Infectious Bursal Disease Virus

VIRUSES

Adenovirus Pneumonia
 African Horse Sickness Virus
 African Swine Fever Virus

Infectious Canine Hepatitis Virus
 Infectious Pancreatic Necrosis Virus
 Infectious Salmon Anaemia Virus
 Infective Bovine Rhinotracheitis Virus
 Leptospira Canicola Virus
 Maedi- Visna Virus
 Marek's Disease Virus
 Newcastle Disease Virus
 PCV2 Virus (PMWS)
 Porcine Parvovirus
 Porcine Reproductive and Respiratory
 Syndrome Virus (PRRS)
 Pseudorabies Virus (Aujeszky's Disease)
 Rotaviral Diarrhea Virus
 Snakehead rhabdovirus
 SV40 Virus
 Swine Influenza Virus
 Transmissible Gastroenteritis Virus (TGE)
 Turkey Herpes Virus
 Turkey Rhinotracheitis Virus
 Vesicular Stomatitis Virus

PLANT PATHOGENS

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

FUNGI

Aspergillus fumigatus
 Candida albicans
 Fusarium moniliforme
 Microsporum canis
 Trichophyton spp. (Ringworm)
 Trichophyton spp. (Mud Fever)

EFFECTIVE AGAINST THE FOLLOWING HUMAN HEALTH PATHOGENS

Human Immuno-Deficiency Virus (HIV) Type 1 (on hard, non-porous surfaces), Streptococcus pyogenes, Campylobacter pyloridis, klebsiella pneumoniae, Escherichia coli, Salmonella typhimurium, Salmonella choleraesuis, Pseudomonas aeruginosa, Staphylococcus aureus, Staphylococcus epidermidis, and Candida albicans.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. Powder is corrosive. Causes skin burns and irreversible eye damage. Harmful if swallowed, absorbed through skin, or inhaled. Do not get in eyes, on skin, or on clothing. Wear protective clothing and rubber gloves. Avoid breathing dust. Wear goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. **Corrosive statement refers to powder only not in use solution.**

[Comment: The instructions under “DIRECTIONS FOR USE” may be placed in any order as long as they remain a continuous section on the label.]

BROAD SPECTRUM DISINFECTANT

Virkon® S is effective against numerous microorganisms affecting animals: viruses, gram positive and gram negative bacteria, fungi (molds and yeasts), and mycoplasma. Efficacy of the 1% solution was determined in the presence of 400 ppm AOAC hard water and 5% organic material. Virkon® S passes the AOAC germicidal and detergent sanitizer test at a concentration of 0.5% (1:200) in the presence of 200 ppm hard water. Apply a 0.5% (1:200) solution for routine sanitation.

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 formula is easily diluted for use in manual or machine operations.

Virkon® S DILUTION CHART

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

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

Measuring cup provided.

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.

POULTRY [PRODUCTION] [AND RATITE PRODUCTION]

[CONTROLS: Viruses of Newcastle Disease, Infectious Bronchitis, Infectious Bursal Disease, Avian Laryngotracheitis, Marek's Disease, Egg Drop Syndrome, Avian Influenza, Turkey Herpes Virus and Duck Viral Enteritis. Fungi (molds and yeasts) - Aspergillus flavus, Aspergillus fumigatus and Candida albicans. Bacteria - Streptococcus pyogenes, Campylobacter pyloridis, Klebsiella pneumoniae, Escherichia coli, Salmonella typhimurium, Salmonella choleraesuis, Pseudomonas aeruginosa, Staphylococcus aureus, Staphylococcus epidermidis, Bordetella avium and Mycoplasma gallisepticum.] (OPT.)

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.

Virkon® S 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 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 water. Do not house poultry or use equipment until treatment has dried.

FOR AIR SANITIZING: Use Virkon® S 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 at 1% solution to disinfect and clean walls, ceilings and floors.

SWINE PRODUCTION

[CONTROLS: Viruses of Hog Cholera, Swine influenza, Porcine Parvovirus, Pseudorabies, Porcine Reproductive and Respiratory Syndrome (PRRS), Rotoviral Diarrhea, African Swine Fever and Foot and Mouth Disease. Bacteria of Pleuropneumonia, Treponema hyodysenteriae, and Clostridium perfringens. Fungi: Fusarium moniliforme.] (OPT.)

Follow General Instructions to remove swine and preclean area to be treated. Virkon® S 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 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. 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 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. Bacterial: Clostridial Diarrhea, Fistulous Withers (Poll Evil), Taylorella equigenitalis, Bordetella bronchiseptica, Streptococcus equi (Strangles) and Pseudomonas mallei (Glanders). Fungi: Dermatophytosis (Ringworm), Dermatophylosis (Mud Fever), and Fusarium moniliforme.] (OPT.)

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 solution. Rinse with clean water.

Blankets, Saddle Pads and Rugs: 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: Use a hand or knapsack sprayer with fine setting, or an automatic spraying system. Spray a 1% Virkon® S 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: Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Bovine Adenovirus Type 4 and Pseudorabies and Foot and Mouth Disease; Bacteria of *Maraxella bovis*, *Haemophilus somnus* and *Mycobacterium bovis*; Fungi of *Fusarium moniliforme*.] (OPT.)

Follow General Instructions to remove livestock and pre-clean area to be treated. A 1% solution of Virkon® S 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, Distemper, *Leptospira canicola*, Feline parvovirus, Feline herpes and Feline calicivirus. Bacteria of *Staphylococcus aureus*, *Streptococcus pyogenes*, *Klebsiella pneumoniae*, and *Pseudomonas aeruginosa*; Fungi of *Microsporium canis*.] (OPT.)

[APPLICATIONS] A 1% solution of Virkon® S is recommended as a “one step” cleaning and disinfecting procedure for all surfaces, equipment, instruments, utensils and cages [caging systems] within [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 for long periods - 10 minutes is maximum contact time.

GREENHOUSES AND HORTICULTURE

Virkon® S is intended to disinfect inanimate environmental surfaces, glasshouse structures, equipment, utensils, trays, containers, and vehicles in greenhouses and other horticultural settings prior to introduction or reintroduction of plants, seeds, or soil. 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.

Remove all crop debris, strings and other deposits from structures, empty trays and pots. Power wash all the dust off the covering and superstructure and let dry. Using a sprayer or fogger saturate all surfaces with a 1% solution of Virkon® S. Let air dry.

Virkon® S may also be used to disinfect irrigation tanks and lines. 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.

Virkon® S 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. 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.

AQUACULTURE

Virkon® S is 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.

Virkon® S 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. 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.

EMERGENCY DISEASE CONTROL (ANIMAL HEALTH)

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. (OPT.)

A 1% solution of Virkon® S 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 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 for long periods - 10 minutes is maximum contact time.

INSTITUTIONAL AND SERVICE FACILITIES (HUMAN HEALTH)

CONTROLS: Human Immuno-Deficiency Virus (HIV) Type 1 (on hard, non-porous surfaces), Streptococcus pyogenes, Campylobacter pyloridis, klebsiella pneumoniae, Escherichia coli, Salmonella typhimurium, Salmonella choleraesuis, Pseudomonas aeruginosa, Staphylococcus aureus, Staphylococcus epidermidis, and Candida albicans. (OPT.)

With Virkon® S, only one product is needed to clean and disinfect all surfaces except acid-sensitive surfaces such as copper, brass, or aluminum. Do not use Virkon S on these acid-sensitive surfaces. Avoid splashing Virkon® S solution on textiles or carpets. Virkon® S may be used on carpeting or other textiles only if area is tested for color fastness before use and treated area vacuumed when dry.

Cleaning and Disinfecting Non-Food Contact Surfaces: Remove gross dirt and use 1.0% Virkon® S solution prepared according to the Dilution Chart below. Apply to surface using a mop, sponge, brushes or spray device until the surface is visibly clean. Air dry. In cases of fungal or viral contamination of non-food contact surfaces, follow these instructions substituting a 2.0% Virkon® S solution.

Sanitizing Toilet Bowls: After flushing, sprinkle 1 oz. Virkon® S powder around the bowl, scrub with a brush, and leave for 10 minutes. Flush.

Cleaning and Disinfecting Manikins Used in CPR Training: Manikins should be cleaned as soon as possible at the end of each class to avoid drying of contaminants on surfaces. Disassemble the manikin as directed by the manufacturer's instructions. Thoroughly wash all internal and external surfaces and reusable protective face shields with a brush using a 1% Virkon[®] S solution. Let stand for 10 minutes and rinse with potable water.

Cleaning and Disinfecting Hard, Non-porous Surfaces Suspected of HIV Type 1 Contamination: Cover heavy spillage of body fluids with Virkon[®] S powder. Let stand for 10 minutes, and then scoop into plastic bag. Treat bag and its contents as infectious medical waste. Prepare 2% Virkon[®] S solution according to the Dilution Chart. Apply to surface to be treated using a mop, sponge, brush or spray device until the surface is visibly clean. Air dry.

EMERGENCY RESPONSE AND ON-SITE CLEANUP

Cover heavy spillage of body fluids with Virkon[®] S powder. Let stand for 10 minutes, and then scoop into plastic bag. Treat bag and its contents as infectious medical waste.

Prepare 2% Virkon[®] S solution according to the Dilution Chart. Apply to surface to be treated using a mop, sponge, brush or spray device until the surface is visibly clean. Air dry.

STORAGE AND DISPOSAL

STORAGE: Store in a cool, dry place in tightly closed container away from children. Always replace lid after use.

DISPOSAL: Wash empty container thoroughly and dispose in trash. Do not mix this product with other chemicals