

Vindicator® +

HILLYARD
ARSENAL®
6

This product is a phosphate-free, pH neutral formulation designed to provide effective cleaning, deodorizing, and disinfection for hospitals, nursing homes, households, homes, private residences, schools, office buildings, manufacturing facilities, lodging establishments, retail business, athletic/recreation facilities, sports stadiums, amphitheaters and convention centers where housekeeping is of prime importance in controlling cross-contamination. Vindicator +, when used as directed, is formulated to disinfect hard, non-porous, inanimate, environmental surfaces: floors, walls, metal surfaces, stainless steel surfaces, glazed porcelain, glazed ceramic tile, plastic surfaces, vanity tops, shower stalls, bathtubs, and cabinets. Active Ingredients: Octyl decyl dimethyl ammonium chloride 6.510%, Dioctyl dimethyl ammonium chloride 3.255%, Didecyl dimethyl ammonium chloride 3.255%, Alkyl (50% C14, 40% C12, 10% C16) dimethyl benzyl ammonium chloride 8.680%, Inert Ingredients 78.300%.

Features & Benefits

- Leaves a pleasant scent.
- Concentrated for economical cost-in-use.
- EPA registered disinfectant.

Efficacy

BACTERICIDAL ACTIVITY - At the ½ ounce per gallon dilution, Vindicator+ demonstrates effective disinfectant activity against the organisms:

Pseudomonas aeruginosa PRD-10
Salmonella enterica
Staphylococcus aureus
Staphylococcus aureus (clinical isolate)
Bordetella bronchiseptica
Corynebacterium ammoniogenes
Enterobacter aerogenes
Enterobacter cloacae
Enterobacter cloacae (clinical isolate)
Enterococcus faecalis
Enterococcus faecalis (clinical isolate)
Escherichia coli
Escherichia coli (clinical isolate)
Fusobacterium necrophorum
Klebsiella pneumoniae subsp. pneumoniae
Lactobacillus casei subsp. rhamnosus
Listeria monocytogenes
Pasteurella multocida
Proteus vulgaris
Proteus mirabilis ATCC 9921
Proteus mirabilis ATCC 25933
Salmonella enterica subsp. enterica serotype paratyphi B
Salmonella enterica subsp. enterica serotype typhi
Salmonella enterica subsp. enterica serotype typhimurium
Salmonella enterica subsp. enterica serotype pullorum
Serratia marcescens
Shigella sonnei
Shigella flexneri Type 2b
Shigella dysenteriae
Staphylococcus aureus subsp. aureus
Staphylococcus epidermidis
Staphylococcus epidermidis (clinical isolate)
Streptococcus pyogenes (Clinical - Flesh Eating Strain BIRD M3)
Streptococcus pyogenes Group A
Xanthomonas maltophilia (clinical isolate)
Vancomycin resistant Enterococcus faecalis (VRE) (ATCC 51575)
Methicillin resistant Staphylococcus aureus (MRSA)
Vancomycin intermediate resistant Staphylococcus aureus (VISA)

(continued top next column)

Community Associated Methicillin resistant Staphylococcus aureus (CA-MRSA) NRS 123 Genotype USA400

Community Associated Methicillin resistant Staphylococcus aureus (CA-MRSA) NRS 384 Genotype USA300

Salmonella enterica subsp. enterica serotype enteritidis

Ampicillin resistant Acinetobacter baumannii

Cefazolin resistant Acinetobacter baumannii

Ceftazidime resistant Acinetobacter baumannii

Ceftriaxone resistant Acinetobacter baumannii

Gentamicin resistant Acinetobacter baumannii

Tobramycin resistant Acinetobacter baumannii

Ciprofloxacin resistant Acinetobacter baumannii

Levofloxacin resistant Acinetobacter baumannii

Bactrim resistant Acinetobacter baumannii

Fungicidal ACTIVITY - At the ½ ounce per gallon dilution, Vindicator+ is fungicidal against the pathogenic fungi:

Trichophyton mentagrophytes (Athlete's Foot Fungus) (a cause of ringworm)

Candida albicans

***VIRUCIDAL ACTIVITY** - Vindicator+ when used on environmental, inanimate, hard, non-porous surfaces at ½ ounce per gallon of water exhibits effective virucidal activity against:

Human Immunodeficiency Virus Type 1 (HIV-1)

Human Immunodeficiency Virus Type 2 (HIV-2)

Hepatitis B Virus (HBV)

Hepatitis C Virus (HCV)

Herpes Simplex Type 1 (causative agent of fever blisters)

Herpes Simplex Type 2 (genital disease)

Influenza A2/Hong Kong

Vaccinia

Rotavirus

Human Coronavirus (ATCC VR-740 Strain 229E)

SARS Associated Coronavirus

Rabies Virus

Bovine Viral Diarrhea Virus (BVDV)

Pseudorabies

Bovine Rhinotracheitis

Feline Leukemia

Feline Picornavirus

Canine Distemper Virus

Paramyxovirus (Mumps)

Porcine Respiratory & Reproductive Syndrome Virus (PRRSV)

Avian Influenza A Virus

Kills Pandemic 2009 H1N1 Influenza A virus

(formerly called swine flu)



Safety

See material safety data sheet and product label for safety information, handling and proper use.

HMIS

Health	Concentrate/RTU
3/1	
Flammability	2/0
Reactivity	0/0

Technical Specifications

Color	Yellow
Scent	Floral
Appearance	Clear
pH (concentrate)	6.50 - 7.80
Non-Volatile Matter	20.00 - 33.00%
Dilution Rate	1:256

Availability

Item	Pack
HIL0080606	4 - "F" Style 1 Gallon Containers
HIL0080622	6 - 1/2 Gallon Containers
HIL0080689	72 - 1 oz. Packets
HIL0080695	54 - 2.5 oz. Packets
HIL0080625	4 - 2.5 Liter Containers

Registrations

EPA Reg. No. 1839-167-1658

HILLYARD

This is an EPA registered disinfectant. Please refer to the actual container label for complete directions

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Vindicator+ is not for use on critical and semi-critical medical device surfaces.

DISINFECTION - To disinfect inanimate, hard non-porous surfaces, add ½ ounce of Vindicator+ per gallon of water. Apply solution with a mop, cloth, sponge, hand pump trigger sprayer or low pressure coarse sprayer so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes, then remove excess liquid. For sprayer applications, spray 6-8 inches from surface, rub with brush, sponge or cloth. Do not breathe spray mist. For heavily soiled areas, a pre-cleaning step is required.

BACTERICIDAL STABILITY OF USE-SOLUTION: Tests confirm that Vindicator+ when diluted at ½ ounce/gallon in hard water up to 400 ppm (as CaCO₃) remains effective against *Pseudomonas aeruginosa*, *Staphylococcus aureus* and *Salmonella enterica* for up to 1 month when stored in a sealed container such as a spray bottle at room temperature. If Vindicator+ becomes visibly dirty or contaminated, the use-solution must be discarded and fresh use-solution prepared. Always use clean, properly labeled containers when diluting Vindicator+. Bactericidal stability of the use-solution does not apply to open containers such as buckets or pails.

PACKETS - Pour contents of 2.5 oz packet into 5 gallons of water. Keep packets in box until ready to use.

BACTERICIDAL ACTIVITY - At the ½ ounce per gallon dilution, Vindicator+ demonstrates effective disinfectant activity against the organisms: *Pseudomonas aeruginosa* PRD-10, *Salmonella enterica*, *Staphylococcus aureus*, *Staphylococcus aureus* (clinical isolate), *Bordetella bronchiseptica*, *Corynebacterium ammoniagenes*, *Enterobacter aerogenes*, *Enterobacter cloacae*, *Enterobacter cloacae* (clinical isolate), *Enterococcus faecalis*, *Enterococcus faecalis* (clinical isolate), *Escherichia coli* (clinical isolate), *Fusobacterium necrophorum*, *Klebsiella pneumoniae* subsp. *pneumoniae*, *Lactobacillus casei* subsp. *rhamnosus*, *Listeria monocytogenes*, *Pasteurella multocida*, *Proteus vulgaris*, *Proteus mirabilis* ATCC 9921, *Proteus mirabilis* ATCC 25933, *Salmonella enterica* subsp. *enterica* serotype *paratyphi* B, *Salmonella enterica* subsp. *enterica* serotype *typhi*, *Salmonella enterica* subsp. *enterica* serotype *typhimurium*, *Salmonella enterica* subsp. *enterica* serotype *pullorum*, *Serratia marcescens*, *Shigella sonnei*, *Shigella flexneri* Type 2b, *Shigella dysenteriae*, *Staphylococcus aureus* subsp. *aureus*, *Staphylococcus epidermidis* (clinical isolate), *Streptococcus pyogenes* (Clinical - Flesh Eating Strain BIRD M3), *Streptococcus pyogenes* Group A, *Xanthomonas maltophilia* (clinical isolate), *Vancomycin resistant Enterococcus faecalis* (VRE) (ATCC 51575), *Methicillin resistant Staphylococcus aureus* (MRSA), *Vancomycin intermediate resistant Staphylococcus aureus* (VISA), *Community Associated Methicillin resistant Staphylococcus aureus* (CA-MRSA) NRS 123 Genotype USA400, *Community Associated Methicillin resistant Staphylococcus aureus* (CA-MRSA) NRS 384 Genotype USA300, *Salmonella enterica* subsp. *enterica* serotype *enteritidis*, *Ampicillin resistant Acinetobacter baumannii*, *Cefazolin resistant Acinetobacter baumannii*, *Ceftazidime resistant Acinetobacter baumannii*, *Ceftriaxone resistant Acinetobacter baumannii*, *Gentamicin resistant Acinetobacter baumannii*, *Tobramycin resistant Acinetobacter baumannii*, *Ciprofloxacin resistant Acinetobacter baumannii*, *Levofloxacin resistant Acinetobacter baumannii* and *Bactrim resistant Acinetobacter baumannii*.

DEODORIZATION - To deodorize, apply Vindicator+ as indicated under the heading DISINFECTION.

MILDEWSTAT - To control mold and mildew (*Aspergillus niger* ATCC 6275) and the odors they cause on pre-cleaned, hard, non-porous inanimate surfaces add ½ ounce of Vindicator+ per gallon of water. Apply solution with a cloth, mop, sponge or hand pump trigger sprayer making sure to wet all surfaces completely. Let air dry. Prepare a fresh solution for each use. Repeat application at weekly intervals or when mildew growth appears.

To disinfect toilet bowls – Prior to disinfection, remove gross filth or soils from surfaces with bowl brush. Add ½ ounce of Vindicator+ to the bowl water. Brush or swab the bowl completely using a scrub brush or toilet mop making sure to get under the rim. Let stand for 10 minutes and flush.

Disinfection of Barber/Salon Tools Directions: Immerse pre-cleaned barber/salon tools (combs, brushes, razors, manicure/pedicure tools, clippers, scissors, trimmer blades) in a use-solution (or equivalent dilution) of ½ ounce of Vindicator+ per gallon of water for at least 10 minutes. Rinse instruments thoroughly and dry before reuse. A fresh use-solution must be prepared daily or more often if the use-solution becomes visibly dirty. **NOTE:** Plastics may remain immersed until ready to use. Stainless steel shears and instruments must be removed from the use-solution after 10 minutes, rinsed, dried and kept in a clean, non-contaminated receptacle. Prolonged immersion may cause damage to stainless steel or metal instruments.

To Control Mold and Mildew on Large, Inflatable, Non-Porous Plastic and Rubber Structures (animals, promotional items, moonwalk, slides, obstacle course play equipment, exercise equipment, and wrestling mats): Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use-solution of 2 ounces of Vindicator+ per 4 gallons of water (½ ounce per gallon of water) (850 ppm active quaternary) (or equivalent dilution) for a period of 10 minutes. Ventilate buildings and other closed spaces. Do not use equipment until treatment has been absorbed, set or dried.

Veterinary Practice/Animal Care/Animal Laboratory/Zoos/Pet Shop/Kennels Disinfection Directions: For cleaning and disinfecting the following hard non-porous surfaces: equipment not used for animal food or water, utensils, instruments, cages, kennels, stables, catteries, etc. Remove all animals and feed from premises, animal transportation vehicles, crates, etc. Remove all litter, droppings and manure from floors, walls and surfaces occupied or traversed by animals. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use-solution of ½ ounce of Vindicator+ per gallon of water (or equivalent dilution) for a period of 10 minutes. Ventilate buildings and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried.

Farm Premise Use: Do not use in milking stalls, milking parlors or milk houses. Remove all animals and feed from premises, vehicles and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate all surfaces with a use-solution of ½ ounce of Vindicator+ per gallon of water (or equivalent dilution) for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels and scrapers used in removing litter and manure. Ventilate buildings, cars, trucks, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

GENERAL CLEANING – Apply Vindicator+ to soiled area with a mop, cloth, sponge, hand pump trigger sprayer or low pressure coarse sprayer. Vindicator+ can be diluted at ½ ounce per gallon or applied at full strength. Thoroughly wet soiled surface and scrub as necessary.

POULTRY AND SWINE PREMISE DISINFECTION

Site Preparation: The first step in any ongoing disinfection program must be the removal of gross contamination and debris. This is accomplished by using a shovel, broom, or vacuum, depending on the area to be disinfected. The efficacy of even the most efficient germicidal cleaner is reduced in the presence of heavy organic matter. Once the heavy debris is eliminated, thoroughly clean all surfaces with soap or detergent and rinse with water.

Cleaning And Disinfection: For all general cleaning and disinfection, use ½ ounce of Vindicator+ per gallon of water. Apply Vindicator+ using a cloth, mop, or low pressure coarse sprayer so as to thoroughly wet surface to be disinfected. Allow to remain wet for 10 minutes and then let air dry. For heavily soiled areas, a pre-cleaning step is required. Prepare a fresh solution after each use.

APPLICATIONS AND USE DILUTION

Poultry And Swine Premise: Remove all animals and feeds from premises, trucks, cars, coops and crates. Remove all litter, droppings and manure from floors, walls and surfaces of facilities occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Use ½ ounce of Vindicator+ per gallon of water. Saturate surfaces with the disinfecting solution for a period of 10 minutes. Ventilate buildings, coops and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub treated feed racks, troughs, automatic feeders, fountains and waterers with soap or detergent, and rinse with potable water before reuse. 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.

FUNGICIDAL ACTIVITY - At the ½ ounce per gallon dilution, Vindicator+ is fungicidal against the pathogenic fungi, *Trichophyton mentagrophytes* (Athlete's Foot Fungus) (a cause of ringworm) and *Candida albicans*. Apply solution with a cloth, sponge or hand pump trigger sprayer to hard, non-porous surfaces found in bathrooms, shower stalls, locker rooms, exercise facilities or other clean, hard non-porous surfaces commonly contacted by bare feet. Allow the surface to remain wet for 10 minutes, then remove excess liquid. Diluted product should be applied daily or more frequently with heavy facility use.

***VIRUCIDAL ACTIVITY** – Vindicator+ when used on environmental, inanimate, hard, non-porous surfaces at ½ ounce per gallon of water exhibits effective virucidal activity against Human Immunodeficiency Virus Type 1 (HIV-1), Human Immunodeficiency Virus Type 2 (HIV-2), Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Herpes Simplex Type 1 (causative agent of fever blisters), Herpes Simplex Type 2 (genital disease), Influenza A2/Hong Kong, Vaccinia, Rotavirus, Human Coronavirus (ATCC VR-740, Strain 229E), SARS Associated Coronavirus, Rabies Virus, Bovine Viral Diarrhea Virus (BVDV), Pseudorabies, Bovine Rhinotracheitis, Feline Leukemia, Feline Picornavirus, Canine Distemper Virus, Paramyxovirus (Mumps), Porcine Respiratory & Reproductive Syndrome Virus (PRRSV) and Avian Influenza A Virus. Kills Pandemic 2009 H1N1 Influenza A virus (formerly called swine flu).

KILLS HIV-1, HIV-2, HBV, and HCV ON PRE-CLEANED ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD/BODY FLUIDS in health care settings (hospitals, nursing homes) or other settings in which there is an expected likelihood of soiling of inanimate surfaces/objects with blood or body fluids, and in which the surfaces/objects likely to be soiled with blood or body fluids can be associated with the potential for transmission of Human Immunodeficiency Virus Type 1 or Type 2 (HIV-1 or HIV-2) (associated with AIDS), Hepatitis B Virus (HBV), and Hepatitis C Virus (HCV).

SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATION AGAINST HIV-1, HIV-2, HBV, and HCV ON SURFACES/OBJECTS SOILED WITH BLOOD/BODY FLUIDS. PERSONAL PROTECTION: When handling items soiled with blood or body fluids, use disposable latex gloves, gowns, masks, and eye coverings. **CLEANING PROCEDURES:** Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application of Vindicator+. **CONTACT TIME:** Allow surface to remain wet for 10 minutes. **DISPOSAL OF INFECTIOUS MATERIALS:** Blood and other body fluids should be autoclaved and disposed of according to local regulations for infectious waste disposal.

EFFICACY TESTS HAVE DEMONSTRATED THAT VINDICATOR+ IS AN EFFECTIVE BACTERICIDE AND *VIRUCIDE IN WATER UP TO 400 PPM HARDNESS (AS CaCO₃) IN THE PRESENCE OF ORGANIC SOIL (5% BLOOD SERUM). VINDICATOR+ IS AN EFFECTIVE FUNGICIDE AGAINST THE LISTED FUNGI IN WATER UP TO 200 PPM HARDNESS (AS CaCO₃) IN THE PRESENCE OF ORGANIC SOIL (5% BLOOD SERUM).