# Vindicator® +

Vindicator+ is a phosphate-free, safe for surfaces pH 6-8 formulation designed to provide effective cleaning, deodorizing, and disinfection for hospitals, nursing homes, households, homes, private residences, schools, food processing plants, food service establishments, transportation terminals, office buildings, manufacturing facilities, lodging establishments, retail business, athletic/recreation facilities, sports stadiums, amphitheaters and convention centers where housekeeping is of prime importance in reducing cross-contamination. Surfaces which may contact food must be rinsed thoroughly with potable water after use. Vindicator+, when used as directed, is formulated to disinfect the following hard non-porous inanimate environmental surfaces: finished floors (sealed and unsealed floors), walls, metal surfaces, stainless steel surfaces, glazed porcelain, glazed ceramic tile, plastic surfaces, vanity tops, shower stalls, bathtubs, and cabinets. Vindicator+ is formulated to a pH of 6-8 and will not dull high-gloss floor finishes with repeated use. Vindicator+ is effective against SARS-CoV-2 (COVID-19 virus) on hard non-porous surfaces in 1 minute.

- EPA Registration No. 1839-167-1658
- Safe for surfaces pH 6-8
- Leaves a pleasant scent
- Concentrated for economical cost-in-use
- Hospital Disinfectant
- Intended for use with the Hillyard Arsenal One Dispensing systems.

## Safety

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

## Technical Specifications

| | |
|---|---|
| Appearance | Clear |
| Dilution Rate | 1:256 |
| Color | Yellow |
| Scent | Floral |
| Non Volatile Matter | 30.00 - 33.00% |
| pH @ 25 deg. C | 6.50 - 7.80 |
| EPA Registration No. | EPA Reg. No. 1839-167-1658 |

## HMIS (Concentrate/RTU)

Flammability = 2/0 Health = 3/1 Reactivity = 0/0

## Availability

| | |
|---|---|
| HIL0080625 | 4 - 2.5 Liter Containers |
| HIL0080689 | 72 - 1 oz. Packets |
| HIL0080695 | 54 - 2.5 oz. Packets |

## Directions

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.

Surfaces which may contact food must be rinsed thoroughly with potable water after use.

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

**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 1/2 ounce per gallon or applied at full strength. Thoroughly wet soiled surface and scrub as necessary. Vindicator+ may be used to clean porous or non- porous surfaces. Vindicator+ may be used in convenience stores, laundries, factories, restrooms, classrooms and automotive garages or on tables, desks, chairs, garbage cans, shelves, sinks, shower doors and curtains, exercise equipment and wrestling mats.

**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 visibly wet for 10 minutes or 1 minute for SARS-Related Coronavirus 2 (SARS-CoV-2), then remove excess liquid. For sprayer applications, spray 6-8 inches from surface. Do not breathe spray mist. For visibly soiled areas, a pre-cleaning step is required. Surfaces which may contact food must be rinsed thoroughly with potable water after 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 $A_2$/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, and SARS-Related Coronavirus 2 (SARS-CoV-2) (USA-WA1/2020) (BEI NR-52281).

**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 OF 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 visibly 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.

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

Trichophyton interdigitale, formerly known as Trichophyton mentagrophytes (Athlete's Foot Fungus) (a cause of ringworm of the foot) 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 visibly wet for 10 minutes, then remove excess liquid. Diluted product should be applied daily or more frequently with heavy facility use.

**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.

**BACTERICIDAL STABILITY OF USE-SOLUTION:** Tests confirm that Vindicator+ when diluted at ½ ounce/gallon in hard water up to 400 ppm (as CaCO3) (do not subscript the 3 in CACO3) remains effective against Pseudomonas aeruginosa, Staphylococcus aureus and Salmonella enterica for up to 30 days 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.

**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, 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), 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.

**To disinfect food processing premises:** Before using this product, food products and packaging materials must be removed from the area or carefully protected. For floors, walls, and storage areas, add ½ ounce of this product per gallon of water (or equivalent dilution). For visibly soiled areas, a pre-cleaning step is required. 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 visibly wet for 10 minutes or 1 minute for SARS-Related Coronavirus 2 (SARS-CoV-2), then remove excess liquid. All surfaces which may come in contact with food must be rinsed with potable water.

**To disinfect food service establishment non-food contact surfaces:** countertops, appliances, tables, add ½ ounce of this product per gallon of water (or equivalent dilution). For visibly soiled areas, a pre-cleaning step is required. Apply solution with a cloth, sponge or hand pump trigger sprayer so as to wet all surfaces thoroughly. Allow the surface to remain visibly wet for 10 minutes or 1 minute for SARS-Related Coronavirus 2 (SARS-CoV-2), then remove excess liquid and rinse the surface with potable water. This product cannot be used to clean the following food contact surfaces: utensils, glassware and dishes.

**To disinfect toilet bowls** – Prior to disinfection, remove visible 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.

**POULTRY AND SWINE PREMISE DISINFECTION**

**Site Preparation:** The first step in any on-going disinfection program must be the removal of visible 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 visible organic matter. Once the visible 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 visibly wet for 10 minutes and then let air dry. For visibly 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.

**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.

**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 or 1 minute for SARS-Related Coronavirus 2 (SARS-CoV-2). 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 or 1 minute for SARS-Related Coronavirus 2 (SARS-CoV-2), 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.

**EFFICACY**

BACTERICIDAL **ACTIVITY: 10-minute** contact time, 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, 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), 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.

***VIRUCIDAL ACTIVITY: 10-minute** contact time, 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 $A_2$/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, and **1-minute** contact time SARS-Related Coronavirus 2 (SARS-CoV-2) (USA-WA1/2020) (BEI NR-52281).

**FUNGICIDAL ACTIVITY: 10-minute** contact time, Trichophyton mentagrophytes (Athlete's Foot Fungus) (a cause of ringworm) and Candida albicans.

**MILDEWSTAT: 10-minute** contact time: Aspergillus niger