STERIS®

LpH ag®
PHENOLIC ENVIRONMENTAL DISINFECTANT
TECHNICAL DATA

GENERAL DESCRIPTION

LpH ag Environmental Disinfectant is a non-alkaline phenolic germicidal detergent designed to be effective in hard (400 ppm as $CaCO_3$) or soft water in the presence of organic soil (5% blood serum). The use-solution of this product when diluted 1/2 ounce per gallon of water (0.4% v/v) is specifically formulated to clean, disinfect, and deodorize in a simple one-step process. In addition, the non-alkaline formula removes soap scum and hard water scale which can harbor bacteria.

LpH ag disinfectant is a non-alkaline product formulated for use on hard non-porous environmental surfaces such as floors, walls, counters, tools, carts, and other equipment in food processing areas, in animal and avian husbandry, poultry and feed processing facilities, veterinary clinics, animal research facilities, and in other indoor areas where anti-bacterial control measures are necessary. LpH ag disinfectant can be used for one-step cleaning, disinfecting, and deodorizing of stainless or galvanized steel, chrome, porcelain, plastic, glass, tile, and washable, painted, or varnished surfaces. It is also safe for use on concrete, resilient vinyl, asphalt, linoleum, rubber, terrazzo, and other combination type floors.

FEATURES	BENEFITS
Advanced phenolic formula that kills a range of gram-positive, gram-negative, and acid-fast bacilli both fungicidal and viricidal, including activity against HIV-1 (AIDS)	Broad spectrum germicidal activity, including TB bacteria and HIV-1 (AIDS) and *Salmonella enteritidis*
Contains a non-alkaline detergent system which solubilizes mineral soils	Provides superior cleaning ability even in the presence of urine and hard water scale
Hard water (400 ppm as $CaCO_3$) effective	Disinfection verified in most tap waters
5% serum effective	Proven effective in simulated use conditions

PHYSICAL PROPERTIES

Form	Amber to yellow
Odor	Mild and pleasant
Specific gravity (25°C [77°F])	1.11 typical
Typical pH (undiluted)	Approx. 1.0
Typical pH (0.4% v/v)	2.6 typical
Flash point (Tag closed cup)	44°C (111°F)

BACTERICIDAL PROPERTIES

The official test for determining the germicidal efficacy of a one-step cleaner disinfectant is the Use Dilution Method as stated in the *AOAC Methods of Analysis.* LpH ag disinfectant concentrate diluted 1/2 ounce per gallon of water (0.4% v/v) in 400 ppm ($CaCO_3$) hard water is effective against the following microorganisms in the presence of 5% blood serum in 10 minutes at 20°C (68°F).

Acinetobacter calcoaceticus	*ATCC 19606*
Aeromonas hydrophila	*ATCC 7965*
Bordetella avium	*ATCC 35086*
Campylobacter jejuni	*ATCC 29428*
Candida albicans, Clinical Isolate	
Candida parapsilosis, Clinical Isolate	
Citrobacter freundii	*ATCC 8090*
Enterobacter aerogenes	*ATCC 13048*
Enterobacter cloacae	*ATCC 23355*
Escherichia coli	*ATCC 25922*
Klebsiella pneumoniae	*ATCC 13883*

Listeria monocytogenes	*ATCC 15313*
Mycoplasma gallisepticum	*ATCC 19610*
Pasteurella multocida	*ATCC 29977*
Proteus mirabilis, Clinical Isolate	
Proteus vulgaris	*ATCC 13315*
Pseudomonas aeruginosa	*ATCC 15442*
Pseudomonas aeruginosa	*ATCC 27853*
Salmonella choleraesuis	*ATCC 10708*
Salmonella enteritidis	*ATCC 13076*
Salmonella sp. Serovar pullorum	*ATCC 19945*
Salmonella typhi	*ATCC 6539*
Salmonella typhimurium	*ATCC 14028*
Serratia marcescens	*ATCC 8100*
Shigella flexneri	*ATCC 12022*
Shigella sonnei	*ATCC 25931*
Staphylococcus aureus	*ATCC 6538*
Staphylococcus aureus	*ATCC 25923*
Staphylococcus aureus (MRSA), Multiply (Methicillin)-Resistant Clinical Isolate	
Staphylococcus epidermidis	*ATCC 12228*
Streptococcus faecalis	*ATCC 19433*
Streptococcus pyogenes	*ATCC 19615*
Streptococcus suis	*ATCC 43765*

FUNGICIDAL PROPERTIES

The official test for determining the fungicidal efficacy of a one-step cleaner disinfectant is the Use Dilution Method as described in the *AOAC Methods of Analysis,* and modified as required by EPA regulations. LpH ag disinfectant concentrate diluted 1/2 ounce per gallon of water (0.4% $^{V}/_{V}$) in 400 ppm (as $CaCO_3$) hard water is effective against *Trichophyton mentagrophytes* in the presence of 5% blood serum in 10 minutes at 20°C (68°F).

TUBERCULOCIDAL PROPERTIES

LpH ag germicidal detergent passes the *AOAC Tuberculocidal Test (Mycobacterium tuberculosis var. bovis [BCG])* when diluted 1/2 ounce per gallon of water (0.4% $^{V}/_{V}$) with 400 ppm AOAC hard water in the presence of 5% organic soil (serum) in 10 minutes at 20°C (68°F).

VIRUCIDAL PROPERTIES

When using the EPA Proposed Method, LpH ag disinfectant is effective against the following viruses at a 1/2 ounce per gallon of water (0.4% $^{V}/_{V}$) dilution in 400 ppm hard water and 5% serum in 10 minutes at 20-25°C (68-77°F).

Adenovirus Type 2	Influenza A_2 (Japan)
Avian Influenza Virus	Mareks Disease
Avian Reovirus	Newcastle Disease
Canine Distemper	Porcine Rotavirus
Herpes Simplex Type 2	Pseudorabies
Infectious Bronchitis	Transmissible Gastroenteritis
Infectious Laryngotracheitis	Vaccinia Virus

When tested by an EPA approved Dilution Method, a dried film of HIV-1 (AIDS) virus, with added 5% organic soil (serum) was completely inactivated by a 1/2 ounce per gallon of water (0.4% $^{V}/_{V}$) solution of LpH ag disinfectant in 400 ppm AOAC hard water in 60 seconds at 20°C (68°F). Although efficacy at one minute contact time has been shown to be adequate for HIV-1, this time would not be sufficient for other organisms. Use a 10-minute contact time for all organisms.

At a 2 fluid ounces per gallon (1.6% $^{V}/_{V}$) dilution in 400 ppm hard water and 5% organic soil (serum) LpH ag disinfectant is effective against Canine Parvovirus and Infectious Bursal Disease on hard inanimate surfaces in 10 minutes at 20-25°C (68-77°F) and passes the Viricidal Assay (EPA Proposed Method).

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labelling.

Cleaning and Disinfecting Washable, Hard, Non-Porous Surfaces

Always remove gross filth and heavy soil before application of the use-solution of this product. Add 1/2 fluid ounce (15cc) to each premeasured gallon of water (0.4%). Always add this product (concentrate) to premeasured water. For accurate solution preparation, use STERIS's 1-Stroke Dispenser (one stroke delivers 1/2 ounce of product). Gently mix until the solution is uniform. Apply use-solution to the surface being disinfected with a cloth, sponge, coarse spray, mop, or brush using normal cleaning methods. Allow the treated surfaces to remain wet for 10 minutes, then remove excess solution with a wrung-out applicator. Discard soiled solutions in an approved manner and replace with fresh use-solutions. This a complete product. Do not add other chemicals. If frozen, thaw and remix before use. Use only as directed on label.

Animal Husbandry, Animal Research, Poultry, Poultry House Facility Cleaning and Disinfection

Do not use in milking stalls, milking parlors, or milk houses. Remove and cover all food, feedstuffs, packaging materials, and livestock. Remove all litter, manure, and other debris from floors and walls; scrape, if necessary. Empty all troughs, racks, feed and water appliances. Saturate all surfaces with a 1/2 ounce per gallon of water (0.4% $^{V}/_{V}$). Scrub to loosen adhering soils. Allow to soak for 10 minutes, then pick up excess with a wrung-out applicator. Flush feeders and waterers with potable water after disinfecting. Drain all surfaces, ventilate buildings, and allow to dry before use or rehousing animals.

Fogging as an Adjunct to Regular Cleaning and Disinfecting

This product may be used in fogging (wet misting) as an adjunct either proceeding or following regular cleaning and disinfecting procedures in research and manufacturing facilities, in poultry operations, hatcheries, swine operations, animal care facilities, animal research facilities, livestock operations, veterinary facilities, zoos, and kennels. Use a 1/2 ounce per gallon of water (0.4% $^{V}/_{V}$). Remove all animals and feed from areas to be fogged. Remove all litter and manure from surfaces or areas traversed by animals. Empty all troughs, racks, and other feeding and watering appliances. Thoroughly clean all surfaces. Fog the desired area at 32 to 64 ounces of use dilution per 1000 cubic feet using equipment with an automatic timer. Do not remain in treated areas; allow at least two hours after fogging is complete before re-entering fogged area. Before fogging remove or cover any food or packaging material with waterproof coverings. Treated surfaces must be thoroughly scrubbed with LpH ag disinfectant at a 1/2 ounce per gallon of water (0.4% $^{V}/_{V}$) dilution and rinsed with potable water before reuse. Do not rehouse livestock or employ equipment until treatment has dried.

Cleaning and Disinfecting Food Preparation, Processing Facilities, and Equipment

Cover or remove all food and packaging materials; remove all gross soils. Saturate all surfaces with the use solution (1/2 ounce per gallon prepared as directed above). Scrub to loosen all soils. Allow to soak for 10 minutes, then pick up excess solution with a wrung-out applicator. Thoroughly rinse all wetted and cleaned food contact surfaces with potable water.

Disinfection Against Canine Parvovirus and Infectious Bursal Disease Virus

To make solution, add 2 fluid ounces (60 cc) to each premeasured gallon of water and gently mix until solution is uniform. Apply the use-solution as specified above.

Special Instructions for Cleaning and Decontamination Against HIV-1 (Human Immunodeficiency Virus or AIDS Virus) of Surfaces/Objects Soiled with Blood/Body Fluids:

Personal Protection

Wear appropriate barrier protection such as latex gloves, gowns, masks or eye coverings.

Cleaning Procedure

Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application of a 1/2 ounce per gallon of water (0.4% $^{V}/_{V}$) dilution. Prepare and apply solution as directed in paragraph above.

Contact Time

While the HIV-1 virus is inactivated in one minute, use a 10-minute contact time for disinfection of all organisms on this label.

Infectious Materials Disposal

Blood and other body fluids should be autoclaved and disposed of according to local regulations for infectious disposal.

STORAGE AND DISPOSAL

Storage

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty containers. This product should be stored in an area where it is not exposed to extreme temperatures.

Disposal

This germicide, its solutions, or rinsings from empty containers, should be disposed of in a toilet or service sink served by a sanitary sewer, or in a landfill approved for pesticides. Triple rinse and deposit in a waste container for incineration, or in a landfill approved for pesticide containers. Consult federal, state, or local disposal authorities for approved alternative procedures, such as limited open burning.

SERVICE

Sales

Service is one of the most important ways to verify consistent quality of the facility's performance and operation. A tailored service program by STERIS provides effective, trouble-free operations.

Technical

STERIS is pleased to provide a completely staffed and equipped technical service laboratory capable of performing needed tests and providing telephone support, telephone and video conferencing, and on-site assistance when needed. More details on how this service can benefit a facility's particular situation can be provided upon request.

PRECAUTIONS

Information concerning human and environmental exposure for the product may be reviewed on the Material Safety Data Sheet and the label.

For further information, please contact:

STERIS®

STERIS Corporation
5960 Heisley Road
Mentor, OH 44060-1834 ▪ USA
440-354-2600 ▪ 800-444-9009
www.steris.com

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