

**GENERAL DESCRIPTION**

Vesta-Syde SQ st Quaternary Ammonium Disinfectant is a phosphate-free one-step cleaner and disinfectant. It is a liquid concentrate consisting of a quaternary ammonium active ingredient formulated with a compatible biodegradable detergent system.

Vesta-Syde SQ st disinfectant is an effective one-step disinfectant cleaner when diluted using 1 fl. oz./gal. (0.8% v/v or 1:128) with soft or hard water to 400 ppm hardness (Association of Analytical Communities [AOAC] hard water) and in the presence of 5% organic soil.

Vesta-Syde SQ st disinfectant is intended for use as a disinfectant on washable hard, non-porous environmental surfaces such as floors, walls, counters, tools, carts and other equipment in pharmaceutical, medical device and cosmetic manufacturing facilities, and in food processing, preparation and services facilities, in animal husbandry, poultry and feed processing facilities, veterinary clinics, animal research facilities and in other indoor areas where infectious contamination control is a necessity. Vesta-Syde SQ st disinfectant may be used in fogging applications following regular cleaning procedures in research and manufacturing facilities.

Use the use-dilution for cleaning and disinfection of hard, non-porous surfaces including metal surfaces such as stainless or galvanized steel and chrome, glazed porcelain, plastics, glass, glazed tile, washable painted or varnished surfaces, sealed concrete, as well as resilient vinyl, asphalt, linoleum, rubber, terrazzo or other combination-type floors.

**FEATURES**

Excellent fungicidal efficacy  
 Formulated with surfactants  
 Double-bagged package  
 Gamma irradiated  
 Available in unit dose pouches  
 Active Ingredients notified according to the Biocide Product Directive and registered with the United States Environmental Protection Agency (EPA)  
 Manufactured in accordance with current Good Manufacturing Practices (cGMP) at STERIS Corporation with complete lot traceability

**BENEFITS**

Can support reduced sporicide use to control mold contamination  
 One-step broad-spectrum disinfectant efficacy  
 Easy introduction into aseptic areas  
 Validated to verify sterility  
 Saves labor and time when used in validated disinfection processes  
 Available in most countries worldwide  
 Consistent product for validation applications

**TYPICAL PHYSICAL PROPERTIES**

Form..... Colorless to light yellow liquid  
 Specific gravity (25°C [77°])..... 0.98 typical  
 pH (undiluted)..... 11.7  
 pH (1% v/v)..... 10.9

**NORTH AMERICA: MICROBIAL EFFICACY DATA**

**BACTERICIDAL PROPERTIES**

To demonstrate Vesta-Syde SQ st Quaternary Ammonium Disinfectant meets the EPA requirements for broad-spectrum disinfectant, AOAC Use-Dilution Method 955.15 was performed. This carrier method utilizes *Staphylococcus aureus* (ATCC 6538), *Pseudomonas aeruginosa* (ATCC 15442) and *Salmonella enterica* (ATCC 10708) to demonstrate efficacy.

This product is effective in 10 minutes on hard, non-porous surfaces against *Pseudomonas aeruginosa* (ATCC 15442), *Staphylococcus aureus* (ATCC 6538) and *Salmonella enterica* (ATCC 10708) when diluted with 400 ppm AOAC hard water to make a 1:128 (1 fl. oz./gal.) solution, in the presence of 5% organic soil (serum) at 20°C (68°F).

## USE-DILUTION TESTING BY EPA PROTOCOL

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To demonstrate the efficacy of the use-dilution of Vesta-Syde SQ st Quaternary Ammonium Disinfectant, testing was performed as specified by EPA guidelines using the AOAC Use-Dilution Method with a 1:128 dilution of Vesta-Syde SQ st Quaternary Ammonium Disinfectant aged for 35 days. This carrier method utilizes *Staphylococcus aureus* (ATCC 6538), *Pseudomonas aeruginosa* (ATCC 15442) and *Salmonella enterica* (ATCC 10708) to demonstrate efficacy. Under the conditions of this study, Vesta-Syde SQ st disinfectant when diluted 1:128 and held for 35 days prior to testing, demonstrated efficacy against the aforementioned organisms as required by the EPA.

This product is effective in 10 minutes on hard, non-porous surfaces against *Pseudomonas aeruginosa* (ATCC 15442), *Staphylococcus aureus* (ATCC 6538) and *Salmonella enterica* (ATCC 10708) when diluted in deionized water to make a 1:128 (1 fl. oz./gal.) solution (up to five weeks), in the presence of 5% organic soil (serum) at 20°C (68°F).

## FUNGICIDAL PROPERTIES

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Vesta-Syde SQ st Quaternary Ammonium Disinfectant was found to be effective against *Trichophyton mentagrophytes* (ATCC 9533) and *Aspergillus niger* (ATCC 6275) when diluted with 400 ppm AOAC hard water to make a 1:128 (1 fl. oz./gal.) solution, in the presence of 5% organic soil (serum), for a contact time of 10 minutes at 20°C (68°F). This product is effective against *Aspergillus brasiliensis* (ATCC 16404) when diluted with 400 ppm AOAC hard water to make a 1:64 (2 fl. oz./gal.) solution, in the presence of 5% organic soil (serum), for a contact time of 10 minutes at 20°C (68°F).

## VIRUCIDAL PROPERTIES

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Vesta-Syde SQ st Quaternary Ammonium Disinfectant is effective against Human Influenza A2 virus (A/2/Japan/305/57) (H2N2) (Clinical Isolate) and Human Immunodeficiency Virus Type 1 (HIV-1) (Clinical Isolate), when diluted with 400 ppm AOAC hard water to make a 1:128 (1 fl. oz./gal.) solution, in the presence of 5% organic soil (serum) for a contact time of 10 minutes at 20-25°C (68-77°F) on hard, non-porous environmental surfaces. 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 (formerly called swine flu).

## DIRECTIONS FOR USE

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

### **Cleaning and disinfecting hard, non-porous surfaces**

Add 1 fl. oz. of product to each measured gallon of water used (0.8% v/v). For *Aspergillus brasiliensis*, add 2 fl. oz. of product to each measured gallon of water used (1.6% v/v). Always add this product to pre-measured water. Gently mix for a uniform solution. Remove gross filth mechanically by sweeping or other appropriate cleaning techniques. Apply solution with a cloth, sponge, mop, brush or coarse spray using normal cleaning methods. Thoroughly wet all surfaces to be cleaned. Allow treated surfaces to soak for 10 minutes then remove excess solution with a moist or damp applicator. Discard solution when it becomes dirty and replace with a fresh solution. A properly prepared solution of this product with water is intended for use as a hard surface disinfectant. The shelf life is 35 days (use life) when stored in a closed container such as a spray bottle. This is a complete product. Do not add other chemicals. Use only as directed.

### **Animal husbandry, animal research and poultry facility cleaning and disinfecting**

Remove all animals and feed from the premises, vehicles and enclosures. Remove all litter and manure from the floors, walls and surfaces of facilities traversed or occupied by animals. Empty all troughs, racks and other feeding and watering appliance. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of 1 fl. oz./gal. of water (1:128 dilution). Apply solution with a cloth, sponge, mop, brush or coarse spray using normal cleaning methods. Allow surfaces to remain wet for 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 for removing litter and manure. Ventilate building, vehicles and other closed spaces. Do not house livestock or empty equipment until treatment has absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders and waterers with soap or detergent and rinse with potable water before reuse.

### **Cleaning and disinfecting food preparation and processing facilities and equipment**

Cover or remove all food and packaging materials. Remove all gross soils. Saturate all surfaces with the use-solution (1 fl. oz./gal. prepared as directed above). Scrub to loosen all soils. Allow to soak for 10 minutes. Thoroughly rinse all wetted and cleaned surfaces with potable water.

## Fogging for regular cleaning

This product may be used for fogging (wet misting) as an adjunct following regular cleaning and disinfecting procedures in research and manufacturing facilities. Thoroughly clean all surfaces. Fog the desired area at 32 to 64 fl. oz. of use dilution per 1,000 cubic feet using equipment with an automated timer. Do not remain in treated areas; allow at least two hours after fogging is complete before reentering fogged area. Before fogging, remove or cover any food or packaging material with waterproof coverings.

**Kills HIV on Pre-cleaned Environmental Surfaces/Objects previously soiled with blood/body fluids** in healthcare settings 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 HIV-1 (associated with AIDS).

## Special instructions for cleaning and decontamination against HIV-1 (Human Immunodeficiency Virus or AIDS Virus) on Surfaces/Objects soiled with blood/body fluids

**Personal Protection:** Wear appropriate barrier protection such as latex gloves, gowns, masks and eye coverings.

**Cleaning Procedure:** Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application of a 1:128 use-solution (0.8% v/v, 1 fl. oz./gal.). Prepare and apply solution as directed in paragraphs above.

**Contact Time:** Allow surface to remain wet for 10 minutes.

**Infectious Materials Disposal:** Blood and other body fluids should be autoclaved and disposed of according to local regulations for infectious disposal.

## EUROPEAN: MICROBIAL EFFICACY DATA

This testing and related claims are pertinent to Europe only and are not approved for use in the United States. For approved uses in the United States, refer to U.S. EPA approved labeling as referenced in the section above.

### EN 1276: 2009 Quantitative suspension test for the evaluation of bactericidal activity

Vesta-Syde SQ st Quaternary Ammonium Disinfectant passed the requirements of the EN 1276:2009 guidelines at all contact times for bactericidal activity when tested at 0.8% v/v (1:128) in 300 ppm hard water under dirty conditions at 20°C (68°F) for five minutes against *Escherichia coli* (ATCC 10536), *Staphylococcus aureus* (ATCC 6538) and *Enterococcus hirae* (ATCC 10541). *Pseudomonas aeruginosa* (ATCC 15442) when tested 0.8% v/v (1:128) dilution in 300 ppm hard water at 20°C (68°F) for five minutes under clean conditions met the requirements for bactericidal activity.

### BS EN 1650: 2008 Quantitative suspension test for the evaluation of fungicidal activity

Vesta-Syde SQ st Quaternary Ammonium Disinfectant passed the requirements of the BS EN 1650: 2008 guidelines for fungicidal activity when tested at a dilution of 0.8% v/v (1:128) in 300 ppm hard water against *Candida albicans* (ATCC 10231) and at a dilution of 1:32 against *Aspergillus brasiliensis* (ATCC 16404). Testing was done under the basic obligatory conditions of BS EN 1650: 2008. The test results indicate Vesta-Syde SQ st disinfectant diluted at 0.8% (1:128) 300 ppm in hard water and tested at 20°C (68°F) in dirty conditions demonstrates fungicidal activity against *Candida albicans* (ATCC 10231) after five minute contact time and *Aspergillus brasiliensis* (ATCC 16404) after 15-minute contact time when diluted 1:32 in 300 ppm hard water under clean conditions.

### EN 13610: 2001 Chemical Disinfectants – Quantitative suspension test for the evaluation of virucidal activity against bacteriophages of chemical disinfectants used in food and industrial areas

Vesta-Syde SQ st Quaternary Ammonium Disinfectant when diluted 1.6% v/v (1:64) under dirty conditions, shows virucidal activity after 15 minutes at 20°C (68°F) against the strains of bacteriophage of *Lactococcus lactis subsp. lactis* P001 (DSM 4262) and bacteriophage of *Lactococcuslactis subsp. lactis* P008 (DSM 10567), using the indicator strain for lysis *Lactococcuslactis subsp. lactis* F7/2 (DSM 4366).

### UNE-EN 13697:2002 Quantitative non-porous surface test for the evaluation of bactericidal and/or fungicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas

Vesta-Syde SQ st Quaternary Ammonium Disinfectant passed the requirements of the UNE-EN 13697:2002 guidelines when tested using grade 2B stainless steel as the hard surface and is effective (greater than 4 log reduction) against *Escherichia coli* DSMZ 682, *Staphylococcus aureus* DSMZ 799 and *Enterococcus hirae* DSMZ 3320 when diluted at 1:32 (v/v) in hard water (300 ppm) under dirty conditions. 3.0 g/L bovine albumin) after five minutes at 20°C (68°F) and *Pseudomonas aeruginosa* DSMZ 939, *Escherichia coli* DSMZ 682, *Staphylococcus aureus* DSMZ 799 and *Enterococcus hirae* DSMZ 3320 when diluted at 1:32 (v/v) in hard water (300 ppm) under clean conditions (0.3 g/L bovine albumin) after five minutes at 20° (68°F).

Vesta-Syde SQ st Quaternary Ammonium Disinfectant is fungicidal (greater than 3 log reduction) against *Aspergillus brasiliensis* CECT-2574 (ATCC 16404) when diluted at 1:32 (v/v) in hard water (300 ppm) under clean conditions (0.3 g/L bovine albumin) and when diluted at 1:16 (v/v) in hard water (300 ppm) under dirty conditions (3.0 g/L bovine albumin) after 15 minutes at 18-25°C (64-77°F). Vesta-Syde SQ st Quaternary Ammonium Disinfectant is also fungicidal (greater than 3 log reduction) against *Candida albicans* CECT-1394 (ATCC 10231) when diluted at 1:128 (v/v) in hard water (300 ppm) under dirty conditions (3.0 g/L bovine albumin) after five minutes at 18-25°C (64-77°F).

## STORAGE AND DISPOSAL

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Do not contaminate food, feed or water by storage or disposal.

**Pesticide Storage:** Do not store near heat or open flame. If frozen, thaw and remix before use.

**Pesticide Disposal:** Pesticide wastes are acutely 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 the local 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. Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents and dispose of as pesticide waste. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Dispose of rinsate as pesticide waste. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

## SERVICE

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### 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 both telephone 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

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Information concerning human and environmental exposure may be reviewed on the Safety Data Sheet (SDS) for the product. For additional information regarding incidents involving human and environmental exposure, call 314-535-1395.

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### For further information, please contact:



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