TRIPLE S

PERISEPT

Sporicidal Disinfectant Cleaner

Meets CDC protocol for disinfecting
Ebola and EV-68 viruses.

EPA Registration
10324-214-12120

TECHNICAL GUIDE

TRIPLE S

PERISEPT

Sporicidal Disinfectant Cleaner

Table of Contents

Perisept Product Data

What is Perisept?.....1
How Does Perisept Work?.....2
Perisept Dispensing Options.....3
Perisept Wall Chart.....4
TB vs. C.Diff Effectiveness.....5-6
Efficacy Data.....7
Efficacy Claims Against Non Enveloped Viruses.....8
Surface and Material Compatibility.....9-10
Concentrated SDS.....11-21
EPA Registered Product Label (Conc.).....22
Ready To Use SDS.....23-27
EPA Registered Product Label (RTU).....28
General Efficacy & Marketing Claims.....29

Reference Materials

ESM-Proper Cleaning & Disinfecting for *C. diff* spores and other MDRO's.....30-34
CDC Vital Signs.....35-38
Areas of Use.....39
General Use Sites
Medical Use Sites
Material Compatibility
Competitive Analysis Sporicidal Disinfectants.....40
Notes Page.....41

TRIPLE S

PERISEPT

Sporicidal Disinfectant Cleaner

Two-Minute C.diff Claim at 99.9999% Efficacy

New Power Against C. diff and other Common Pathogens

SSS Perisept Sporicidal Disinfectant Cleaner eliminates and prevents the spread of *C. difficile*, as well as, MRSA and many other common pathogens in healthcare, including ESKAPE pathogens – Enterococcus faecalis (VRE), Staphylococcus aureus, Klebsiella pneumoniae, Acinetobacter baumannii, Pseudomonas aeruginosa, and Enterobacterspecies.*

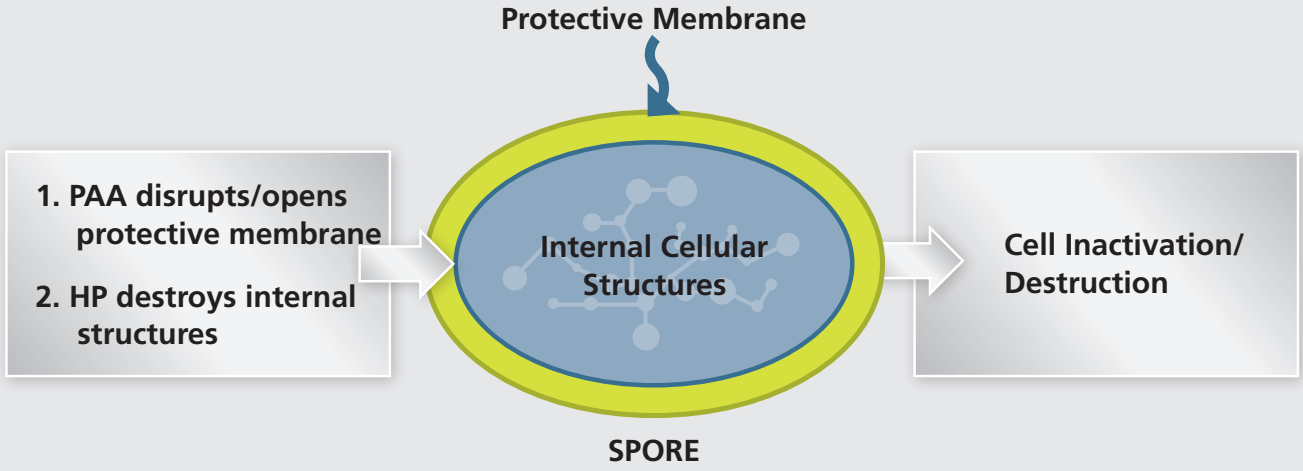
Contains no alcohol or bleach, requires no rinsing and leaves no film on hard surfaces. As a hospital-grade disinfectant cleaner and sporicide it is ideal for surgical rooms, patient rooms, operating suites, physical therapy departments, nursing services, autopsy facilities, long-term care facilities and nursing homes.

According to the Centers for Disease Control and Prevention, EPA-registered disinfectants with a sporicidal claim have been used successfully with environmental surface disinfection in patient care areas.

**When used in accordance with product labeling.*

EPA Registration
10324-214-12120

How does PERISEPT Work?



The primary mode of action is oxidation; the stronger the oxidizer, the faster the killing.

Oxidation Potential of Various Disinfectants	
CHEMICAL	**eV (ELECTRON VOLTS)**
Hydroxy Radical	2.80
Ozone	2.07
Peroxyacetic Acid	1.81
Hydrogen Peroxide	1.80
Chlorine Dioxide	1.57
Sodium Hypochlorite (bleach)	1.36
Nitrogen Dioxide	0.80

The higher the eV the better the chemical

Power that lasts

Peroxyacetic acid disrupts the outer membrane/endospore or coat of the target spore, bacteria, or virus.

- Hydrogen peroxide oxidizes and destroys the internal components.

Together, the active ingredients kill the microbe.

Combat *C. diff* and HAIs with the Industry's Fastest Sporicidal Disinfectant Cleaner

Fast Kill Time
With its shorter kill times, SSS Perisept Sporicidal Disinfectant Cleaner stays wet and works faster. The outcome – assured efficacy against hard-to-kill *C. difficile* spores and other dangerous pathogens every time you clean and disinfect.

Cost-Effective Non-Bleach Formula; Superior Material and Surface Compatibility
The non-bleach, hydrogen peroxide/peroxyacetic acid based formulation leaves no harmful or corrosive residues, no undesirable film on surfaces. SSS Perisept Sporicidal Disinfectant is compatible with many different surfaces and medical equipment used in healthcare including stainless steel, aluminum, chrome, glazed ceramic tile, plastic and painted surfaces, and finished floors. Unlike bleach-based products, it will not corrode metal or damage mattress covers, and requires no rinsing. See the Technical Guide for a broad list of compatible surfaces.

Benefits of a Concentrate
SSS Perisept Sporicidal Disinfectant is designed for use with the closed loop Navigator Dilution Control System. The Navigator DCS offers closed loop dispensing and minimizes contact with the concentrate. The easy to follow numbering and color-coded labeling simplifies training for EVS departments. The high 1:32 dilution rate offers customers a lower end-use cost making it affordable for use as a daily cleaner, in addition to operating rooms, isolation rooms and post discharge. Standardizing to one disinfectant cleaner reduces training challenges, potential confusion, as well as, the number of chemicals stored in the supply closet.

PERISEPT Dispensing Options

#23200

Navigator 4 - Station Dispenser

Four-Station Wall Mount Dilution Control System accurately dispenses four different concentrated cleaning products in one easy step.

Features:

- Easy refill bottle installation
- Single dial product selector
- One-handed spray bottle filling
- Remote bucket/auto scrubber fill gun with trigger on handle
- Rinse water selector
- 2.5 GPM dispensing with action-gap back-flow protection
- No metering tip installation—refill bottles come pre-tipped
- Locking doors prevents access to concentrates

Safe-Guard™ System *All Navigator Models*

Leak-proof bottle insert integrates with dispenser connector—eliminates spills; prevents contact with concentrated product.

Bucket Fill
#23202

Bottle Fill
#23201

Single Station Units

Efficient, accurate dilutions in an ultra-compact design

- Available in bottle fill or bucket fill models
- Durable polypropylene construction with optional locking cabinet
- Safe-Guard System eliminates spills and chemical contact
- 2.5 GPM dispensing with action-gap back-flow protection
- Dispensers can be connected to a single water source

#23203

Navigator Portable

Saves time—no back-and-forth trips to refill buckets or equipment

- Ideal for remote locations – works with any standard water source
- Compact, rugged design with simple one-hand control
- Safe-Guard System eliminates spills and chemical contact

TRIPLE S

NAVIGATOR 62
Dilution Control System

PERISEPT
User Guide

TAKE CARE NOT TO DROP, PUNCTURE, OR SPILL CONCENTRATED LIQUID. CONSULT EMERGENCY PROCEDURES BELOW IF NECESSARY.

1. Put on Gloves/Eyewear

2. Install Bottle

Screw white cap from dispenser onto bottle and slide into bracket.

3. Dispense

Push and hold lever up. Dispense into secondary bottle or chemical dilution bucket.

4. Fill Chart

12" x 12" 250g Cloths	
Number of Cloths	Gallons of Solutions
15	1/4
25	1/2
40	3/4
50	1

18" Pocket and Hook & Loop Mops	
Number of Mops	Gallons of Solutions
10	3/4
15	1 1/3
20	1 1/2
25	1 3/4

Recommended use-solution for preparing microfiber for cleaning/disinfecting.

5. Pour

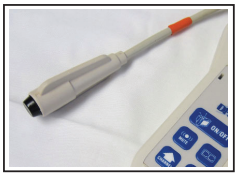
Pour contents into microfiber charging bucket.

6. Set

Allow 15 minutes for solution to saturate microfiber.

7. Clean

- Bedrails
- Walls
- Bedside Tables
- High Touch Surfaces
- Counters
- Toilets
- Floors
- Headboards
- Call Devices
- Showers
- Restrooms
- X-Ray Equipment
- Operating Room Tables
- and Other Hard Surface



POTENTIAL HEALTH EFFECTS:
Eyes: Causes burns and may result in permanent injury to eyes including blindness.
Skin: Causes corrosive burns. Brief exposures may cause irritation.
Inhalation: Mists and vapors can irritate nose, throat and lungs but will usually subside when exposure ceases.
Ingestion: Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

STORAGE:
Store product in cool, dry, well ventilated area only.
DO NOT store PERISEPT containers in direct sunlight.
DO NOT store PERISEPT containers in temperatures greater than 86°F (30°C). Higher temperatures will accelerate decomposition resulting in loss of actives assay, and cause excess gassing of material - possibly resulting in bursting of container.
DO NOT store PERISEPT containers near reducing agents, fuels or near sources of ignition or heat.
DO NOT try to open sealed containers of PERISEPT. Product is extremely corrosive to eyes and skin. Spilled material can ignite organic materials such as paper, fabric, cotton, leather or wood.
DO NOT store PERISEPT containers on top or above other materials such as cardboard cartons of cleaning products or paper products. Best place is to store on concrete floor, or other hard surface.

CONSULT PERISEPT LABEL AND SAFETY DATA SHEET FOR ADDITIONAL SAFETY AND HANDLING INFORMATION.

IN CASE OF SPILL:
Immediately shut off any sources of ignition. Evacuate any personnel not trained in handling spilled material. Ventilate area well. Do not allow contact with organic materials such as paper, fabric, cotton, leather or wood. Do not walk in product or allow contact with footwear or clothing.
Wear protective clothing - chemical splash googles, rubber or other chemical resistant gloves, and rubber boots.
USE positive pressure self-contained breathing apparatus for confined or poorly ventilated areas.
DO NOT allow undiluted material to enter floor drains or sanitary sewer systems.
Methods for cleaning up: Combustible materials exposed to hydrogen peroxide, an ingredient in this product, should be immediately submerged in or rinsed with large amounts of water to ensure that all hydrogen peroxide is removed. Residual hydrogen peroxide that is allowed to dry (upon evaporation hydrogen peroxide can concentrate) on organic materials such as paper, fabrics, cotton, leather, wood or other combustibles can cause the material to ignite and result in a fire.
DO NOT discard rags, mops or other clean-up materials into trash without first being thoroughly rinsed with water.
Neutralization of Spill: Add sodium carbonate (soda ash) at a rate of 1-3 pounds for each gallon of concentrated solution. Excessive carbon dioxide bubbles will be present which will dissipate quickly. Continue adding sodium carbonate (soda ash) until final pH is 6-7. Dispose of product in accordance with state and local regulations.

TRIPLE S

PERISEPT

Sporicidal Disinfectant Cleaner

Descending Order of Resistance to Germicidal Chemicals

HIGH LEVEL DISINFECTION

Bacterial Spores

Bacillus subtilis, Clostridium sporogenes, (**Clostridium Difficile)

▼

MID LEVEL DISINFECTION

Mycobacteria

Mycobacterium tuberculosis var. bovis, Nontuberculous mycobacteria

▼

LOW LEVEL DISINFECTION

Nonlipid or Small Viruses

Poliovirus, Coxsackievirus, Rhinovirus

▼

Fungi

Trichophyton spp., Cryptococcus spp., Candida spp.

▼

Vegetative Bacteria

Pseudomonas aeruginosa, Staphylococcus aureus, Salmonella choleraesuis, Enterococci, MRSA, E.Coli

▼

Lipid or Medium-size Viruses

Herpes simplex virus, CMV, Respiratory syncytial virus, HBV, HCV, HIV, Hantavirus, Ebola virus

TUBERCULOCIDAL VS SPORICIDAL CLAIMS IN HEALTHCARE

According to OSHA Bloodborne Pathogens Standard (created December 6, 1991) regulation **1910.1030(d)(4)(ii)(A)** contaminated work surfaces shall be decontaminated with an **appropriate** disinfectant after completion of procedures; immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or other potentially infectious materials; and at the end of the work shift if the surface may have become contaminated since the last cleaning.

What does OSHA currently accept as "appropriate" disinfectants to prevent the spread of HIV and HBV and other unknown disease causing organisms?
OSHA's position is that EPA-registered tuberculocidal disinfectants, diluted bleach solutions and EPA-registered disinfectants that are labeled as effective against both HIV and HBV, as well as, **Sterilants/High-Level Disinfectants** cleared by the FDA, meet the requirement in the standard and are "appropriate" disinfectants to clean contaminated surfaces, provided that such surfaces have not become contaminated with agent(s) or volumes of or concentrations of agent(s) for which higher level disinfection is recommended.

High Level Disinfection – Disinfectants categorized as Sterilants/Disinfectants by EPA, FDA, CDC are required against bacterial spores e.g. *C.difficile*. #62 **PERISEPT** Sporicidal Disinfectant Cleaner is considered a High Level Disinfectant.

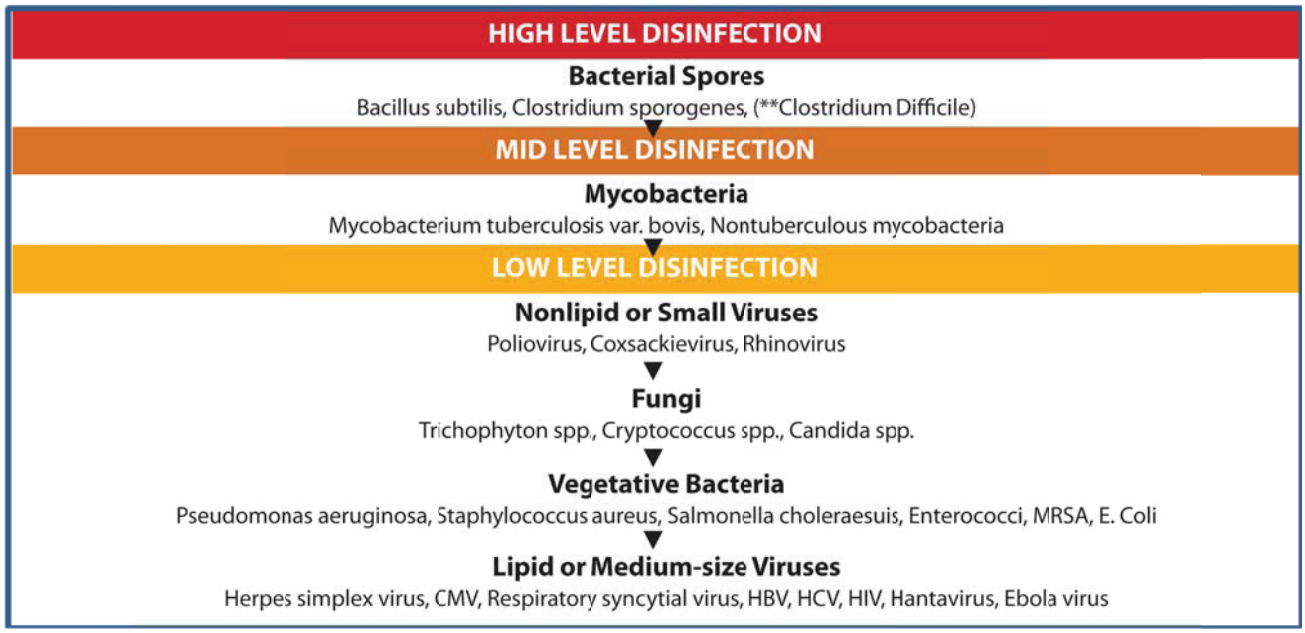
Intermediate Level Disinfection – Under EPA – these are classified as tuberculocidal, which are a lower level disinfectant than the above types. This category was recommended by CDC and OSHA when no other label claims existed for HIV and HBV.

Hydrogen Peroxide/Peroxyacetic Acid (**PERISEPT** ACTIVES) is the equivalent to a high level disinfectant according to the CDC and FDA.

By having claims against *C.difficile*, which according to CDC/NIH is harder to kill than TB (SEE CHART BELOW), the product would provide better efficacy and be considered better than the normally required tuberculocidal disinfectant. Most healthcare facilities follow the guidelines offered by the CDC.

Chart below from CDC/NIH – Biosafety in Microbiological and Biomedical Laboratories, 5th Edition.

Table 1. Descending Order of Resistance to Germicidal Chemicals



CONCLUSION: Since *C.difficile* is harder to kill (according to the CDC and NIH), it requires a higher level liquid disinfectant, such as **PERISEPT**, which in the CDC's view, would also be effective against TB, and be a more suited product to be used when contamination of unknown bacteria, viruses or fungi are encountered. A tuberculocidal disinfectant may now be unsuited for critical cleaning/disinfection in healthcare environments. A disinfectant effective against *C.difficile* will assure Infection Control Managers that they are using the best product to reduce hospital-associated Infections (HAI).

** This organism was an addition to the comparable organisms listed in this category.

TRIPLE S

PERISEPT

Sporicidal Disinfectant Cleaner

Efficacy Data

Sporicidal	Oz ./ Gallon	Contact Time
Clostridium difficile	4	2

Bacteria	Oz ./ Gallon	Contact Time
Acinetobacter baumannii (ATCC 19606)	4	2
Bordetella pertussis (ATCC 12743)	4	2
Community Acquired Methicillin Resistant Staphylococcus aureus CA-MRSA 300 NRS-384	4	2
Community Acquired Methicillin Resistant Staphylococcus aureus CA-MRSA 400 NRS 123	4	2
Escherichia coli (ATCC 11229)	4	2
Escherichia coli with beta-lactamase resistance (ESBL) BAA-196	4	2
Klebsiella pneumonia (ATCC 4352)	4	2
Klebsiella pneumonia Carbapenem Resistant BAA-1705	4	2
Methicillin Resistant Staphylococcus aureus MRSA (ATCC 33592)	4	2
Proteus mirabilis (ATCC 9240)	4	2
Pseudomonas aeruginosa (ATCC 15442)	4	2
Salmonella enterica (ATCC 10708)	4	2
Staphylococcus aureus (ATCC 6538)	4	2
Streptococcus pneumonia (ATCC 6305)	4	2
Streptococcus pyogenes (ATCC 19615)	4	2
Vancomycin Intermediate Resistant Staphylococcus aureus VISA HIP 5836	4	2
Vancomycin Resistant Enterococcus faecalis VRE (ATCC 51575)	4	2

Virucidal	Oz ./ Gallon	Contact Time
Adenovirus type 5 (ATCC VR-5) Strain Adenoid 75	4	2
Herpes simplex virus type 1 (ATCC VR-733)	4	2
Herpes simplex virus type 2 (ATCC VR-734)	4	2
Human Immunodeficiency virus type 1 HTLV-IIIB	4	2
Influenza A virus (ATCC VR-544)	4	2
Murine Norovirus (MNV-1)	4	2
Norovirus (ATCC VR-782)	4	2
Respiratory syncytial (RSV) virus (ATCC VR-26)	4	2
Rhinovirus type 37 (ATCC VR-1147)	4	2
Rotavirus	4	2
Vaccinia virus (ATCC VR-119)	4	2
Canine Parvovirus (CPV)	4	5
Hepatitis B Virus	4	5
Hepatitis C Virus (ATCC VR-1422)	4	5

Fungicidal	Oz ./ Gallon	Contact Time
Candida albicans (ATCC 10231)	4	2
Trichophyton mentagrophytes (ATCC 9533) (Athlete's foot fungus) (a cause of Ringworm)	4	2

SSS Disinfectants with Efficacy Claims Against Non Enveloped Viruses

For Controlling Ebola & EV68 Virus

CDC Guidelines for Environmental Infection Control in Hospitals for Ebola & EV68 Virus

Use a U.S. Environmental Protection Agency (EPA)-registered hospital disinfectant with a label claim for a non-enveloped virus (e.g., norovirus, rotavirus, adenovirus, poliovirus) to disinfect environmental surfaces in rooms of patients with suspected or confirmed Ebola or EV-D68 virus infection. Although there are no products with specific label claims against the Ebola or EV-D68 virus, enveloped viruses such as Ebola and EV-D68 are susceptible to a broad range of hospital disinfectants used to disinfect hard, non-porous surfaces. In contrast, non-enveloped viruses are more resistant to disinfectants.

As a precaution, selection of a disinfectant product with a higher potency than what is normally required for an enveloped virus is being recommended at this time. EPA-registered hospital disinfectants with label claims against non-enveloped viruses (e.g., norovirus, rotavirus, adenovirus, poliovirus) are broadly antiviral and capable of inactivating both enveloped and non-enveloped viruses.

SSS Disinfectant Cleaner Meeting CDC Criteria

	Non Enveloped Virus			
SSS Disinfectant Cleaners	**Norovirus**	**Rotavirus**	**Adenovirus**	**Poliovirus**
SSS Navigator #62 Perisept Sporicidal Disinfectant Cleaner*	X	X	X	

*Suggested for facilities requiring highest levels of efficacy.

Additional dispenser options available from your local Triple S distributor.

Sources:

http://www.cdc.gov/vhf/ebola/hcp/environmental-infection-control-in-hospitals.html
http://www.cdc.gov/non-polio-enterovirus/about/ev-d68.html#protection
http://www.apic.org/Resource_/TinyMceFileManager/epublications/EbolaPS1403-FALL-FINAL.pdf

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TRIPLE S

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Sporicidal Disinfectant Cleaner

Surface & Material Compatibility

Surface & Material Compatibility	
Finished Floors	Laminated Surfaces
Aluminum	Plastic and Painted Surfaces
Baked Enamel Surfaces	Plastic Surfaces
Brass	Polished Nickel Finish
Chrome	Shower Stall
Glass	Stainless Steel
Glazed Ceramic Tile	Vinyl
Glazed Porcelain	

NOTE: This product is compatible with the listed materials. If product is intended to be used on any other surface, it is recommended that you apply product to a smaller test area to determine compatibility before proceeding with its use.

General Use Sites - this product is designed specifically as a general (non-abrasive) cleaner and disinfectant for use in:		
Animal Life Science Laboratories	ICU Areas	Pet Shops
Athlete/Recreational Facilities	Locker Rooms	Public Restrooms
Cruise Ships	Lodging Establishments	Retail Businesses
Dental and Offices	Manufacturing Facilities	Schools
Examination Rooms	Nursing Homes	Shower Rooms
Food Service Establishments (Restaurants)	Office Building	Transportation Terminals
(Commercial Kitchens)	Operating Rooms	Veterinary Clinics
Hospitals	Patient Rooms	

Medical Use Sites		
Assisted Living or Full Care Nursing Homes	Doctor's Offices	Orthopedics
(Bedside) Commodes	Donation Ctr. (Blood/Plasma/Semen/Milk)	Out-Patient Surgical Ctr./Clinic/Facilities
(Crash) (Emergency) Carts	Emergency Rooms (ERs)	Over-bed Tables
(Exam or Examination) Tables	Environmental Surfaces	Paddles
External Surfaces of Ultrasound Equipment	Examination Rooms or Areas	Pagers
(Hard Nonporous) Edge of Privacy Curtains	Exterior of Pipes	Patient Chairs
Hospital or Patient Beds	Exterior Surfaces of Air Vents or Air Vent	Patient Monitoring Equipment
Bed Springs/Railings/Frames/Linings	External Surfaces of Medical Equipment	Patient Support and Delivery Equipment
(Inner) (Inside of) Drawers	Eye Surgical Centers	Pharmacies
(Mayo) (Instrument) Stands	Footboards	Phlebotomy Trays
(Medical) (Physician's) (Doctor's) Offices	Glucometers	Phone Cradle
(Medical) Clinics	Gurneys	Physical Therapy Equip. Surfaces
Ambulances/ER Transport Vehicles	Handheld (Electronic) Devices	Physical Therapy Rooms/Patient Areas
Ambulatory Care Centers	Hard, Nonporous Hospital Medical Surfaces	Physicians' Offices
Ambulatory Surgical Centers (ASC)	Headboards	Plastic Mattress Covers
Anesthesia Machines	Healthcare Settings or Facilities	Power Cords
Anesthesia Rooms or Areas	High Touch Surfaces	Psychiatric Facilities
Apheresis Machines	Hospices	Public (Care) Areas
Autoclaves	Hospitals	Pulse Oximeters

Medical Use Sites *(continued)*		
Bathroom Doorknob	Intensive Care Units (ICUs)	PVC Tubing
Bed Rails	Isolation Areas	Radiology or X-Ray Rooms
Bedpans	Isolettes	Reception (Counter) (Desks) (Areas)
Bedside Tables	IV (Stands) (Pumps) (Poles)	Recovery Rooms
Blood Pressure Cuffs	Keyboards	Rehabilitation Centers
Cabinet Handles	Laboratories	Remote Controls
Call Boxes	Laptops	Respirators
Carts	Laundry Rooms	Respiratory Centers
CAT Lab(oratories)	Long Term Care Facilities	Respiratory Therapy Equipment
Computerized Axial Tomography Equip.	Loupes	Respiratory Therapy Rooms or Areas
Cellular Phones	Mammography Equipment	Restrooms
Central Service Areas	Medical Facilities	Scales
Central Supply Rooms (Areas)	Medication Carts	Sequential Compression Devices
Chairs	Mobile Devices	Shower Fixtures
Charging Stations	Mobile Electronic Equipment	Side Rails
Closet Handles	Mobile Workstations	Slit Lamps
Coated Mattresses	Mouse Pads	Spine Backboards
Coated Pillows	Magnetic Resonance Imaging (MRI) Equip.	Stethoscopes
Computer Mouse	Nurse-Call (Devices) (Buttons) (and Cords)	Stools
Computer Peripherals	Nursing Homes	Stretchers
Computer Screens	Nursing or Nurses' Stations	Support Bars
Computer Tables	Operating Room Tables and Lights	Surgery Rooms
Cords	Operating Rooms (ORs)	Tablet PCS
Counters	Operatory Light Switches	Toilet Handholds
Critical Care Units (CCUs)	Ophthalmic Offices or Areas	Traction Devices
Desktops		Waiting Rooms or Waiting Areas
Diagnostic Equipment		Walls (Around Toilet) In Patient Rooms
Dialysis Clinics (Facilities)		Wash Basins
Dialysis Machines		Wheelchairs
Docking Stations		X-Ray Equipment

SSS Navigator #62 Perisept Sporicidal Disinfectant Cleaner

1. Product and Company Identification

Product identifier	NAVIGATOR #62 PERISEPT SPORICIDAL DISINFECTANT CLEANER
Other means of identification	
Product Code	48027
Product registration number	10324-214-12120
Recommended use	FIFRA Regulated End Use Product (EUP)
Recommended restrictions	None known.
Distributor information	
Company name	Triple S
Address	2 Executive Park Drive Billerica, MA 01862 United States
Telephone	(978) 667-7900 (800)-323-2251
Emergency phone number	(888)-779-1339

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 4
	Organic peroxides	Type F
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	

GHS Label elements

CORROSIVE EXCLAMATION FLAME

Signal word	DANGER
Hazard statement	Combustible liquid. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.
Precautionary statement	
Prevention	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. In case of fire: Use appropriate media to extinguish.
Storage	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.

Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 2
Hazard(s) not otherwise classified (HNOC)	Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.	
Supplemental information	7% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.	

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Hydrogen Peroxide		7722-84-1	20 - < 30
Acetic Acid		64-19-7	5 - < 10
Peracetic Acid		79-21-0	5 - < 10
Etidronic Acid		2809-21-4	1 - < 3
Sulfuric Acid		7664-93-9	< 1
Other components below reportable levels			50 - < 60

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a po sition comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and b lurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat sympt omatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Combustible liquid.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	TO NEUTRALIZE SPILL: Add sodium carbonate (soda ash) at a rate of 1-3 pounds for each gallon of concentrated solution. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. IF CONTAMINATION OCCURS: The drum or container may be hot to the touch. Cool the drum with water if possible. Excessive bubbles may be present in the liquid. Move the drum to an outside location or ventilated area to prevent exposure damage. If possible, dilute the concentrated product within the drum or container. Be aware that heat may be generated during this process.
Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. Handling and storage

Precautions for safe handling	Keep away from open flames, hot surfaces and sources of ignition. Keep liquid away from clothing and other combustible materials. Keep away from heat, sparks and open flame. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment when handling. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store drums locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Keep only in the original container. Store in a well-ventilated place. Store material away from alkaline corrosive materials. Keep in an area equipped with sprinklers. DO NOT allow the concentrated solution to contact any metals other than stainless steel. Preferred materials are plastics such as polypropylene, PVC, polyethylene, Kynar and PTFE. DO NOT allow galvanized metal, copper, iron, steel or brass to come in contact with the concentrated solution. DO NOT place anything into the concentrated container that is not new in order to avoid contamination and unwanted reaction. DO NOT return unused solution back into the container. DO NOT store the product in direct sunlight.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Acetic Acid (CAS 64-19-7)	PEL	25 mg/m3 10 ppm
Hydrogen Peroxide (CAS 7722-84-1)	PEL	1.4 mg/m3 1 ppm
Sulfuric Acid (CAS 7664-93-9)	PEL	1 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Acetic Acid (CAS 64-19-7)	STEL	15 ppm	
	TWA	10 ppm	
Hydrogen Peroxide (CAS 7722-84-1)	TWA	1 ppm	
Peracetic Acid (CAS 79-21-0)	STEL	0.4 ppm	Inhalable fraction and vapor.
Sulfuric Acid (CAS 7664-93-9)	TWA	0.2 mg/m3	Thoracic fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetic Acid (CAS 64-19-7)	STEL	37 mg/m3
		15 ppm
	TWA	25 mg/m3
		10 ppm
Hydrogen Peroxide (CAS 7722-84-1)	TWA	1.4 mg/m3
		1 ppm
Sulfuric Acid (CAS 7664-93-9)	TWA	1 mg/m3

Biological limit values: No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection: Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other: Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Chemical respirator with organic vapor cartridge.

Thermal hazards: Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations: When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state: Liquid.

Form: Liquid.

Color: Colorless

Odor: Pungent Vinegar

Odor threshold: Not available.

pH: > 1

Melting point/freezing point: Not available.

Initial boiling point and boiling range: 212 °F (100 °C)

Flash point: 181.4 °F (83.0 °C)

Evaporation rate: Not available.

Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	22 mm Hg @ 25 deg C
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Miscible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Specific gravity	1.1 @ 25 deg C
VOC (Weight %)	7 % estimated

10. Stability and reactivity

Reactivity	Reacts violently with strong alkaline substances. This product may react with reducing agents.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Do not mix with other chemicals. Contact with incompatible materials.
Incompatible materials	Bases. Strong oxidizing agents. Reducing agents.
Hazardous decomposition products	Toxic gas.

11. Toxicological information

Information on likely routes of exposure	
Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns. Harmful if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
Information on toxicological effects	
Acute toxicity	In high concentrations, vapors are anesthetic and may cause headache, fatigue, dizziness and central nervous system effects. Harmful if swallowed. May cause respiratory irritation.

Components	Species	Test Results
Acetic Acid (CAS 64-19-7)		
Acute		
Oral		
LD50	Rat	3310 mg/kg
Etidronic Acid (CAS 2809-21-4)		
Acute		
Dermal		
LD50	Rabbit	> 10000 mg/kg

Components	Species	Test Results
Oral		
LD50	Rat	3130 mg/kg
Hydrogen Peroxide (CAS 7722-84-1)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 170 mg/m3, 4 h
Oral		
LD50	Rat	1193 - 1270 mg/kg
Peracetic Acid (CAS 79-21-0)		
Acute		
Dermal		
	Rabbit	1147 mg/kg
Inhalation		
	Mouse	204 mg/m^3, 4 h
Oral		
	Rat	1656 mg/kg
Sulfuric Acid (CAS 7664-93-9)		
Acute		
Inhalation		
LC50	Rat	375 mg/m3, 4 h
Oral		
LD50	Rat	2140 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Risk of cancer cannot be excluded with prolonged exposure. IARC has concluded that "occupational exposure to strong inorganic mists containing sulfuric acid is carcinogenic for humans (Group 1)".

IARC Monographs. Overall Evaluation of Carcinogenicity

Hydrogen Peroxide (CAS 7722-84-1)	3 Not classifiable as to carcinogenicity to humans.
Sulfuric Acid (CAS 7664-93-9)	1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Sulfuric Acid (CAS 7664-93-9)	Known To Be Human Carcinogen.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Components		Species	Test Results
Acetic Acid (CAS 64-19-7)			
Aquatic			
Acute			
Algae	EC50	Algae	> 1000 mg/l, 72 h
Crustacea	EC50	Daphnia	> 1000 mg/l, 48 h
Fish	LC50	Oncorhynchus mykiss	> 1000 mg/l, 96 h
Etidronic Acid (CAS 2809-21-4)			
Aquatic			
Acute			
Algae	EC50	Algae	7.23 mg/l, 96 h
Crustacea	EC50	Daphnia	527 mg/l, 48 h
Fish	LC50	Oncorhynchus mykiss	195 mg/l, 96 h
Chronic			
Algae	NOEC	Algae	13 mg/l, 14 d
Crustacea	NOEC	Daphnia	6.75 mg/l, 28 d
Hydrogen Peroxide (CAS 7722-84-1)			
Aquatic			
Acute			
Algae	EC50	Algae	1.38 mg/l, 72 h
Crustacea	LC50	Daphnia	2.4 mg/l, 48 h
Fish	LC50	Fathead minnow (Pimephales promelas)	16.4 mg/l, 96 h
Chronic			
Crustacea	NOEC	Daphnia	0.63 mg/l, 21 d
Peracetic Acid (CAS 79-21-0)			
Aquatic			
Acute			
Algae	EC50	Algae	0.16 mg/l, 72 h
Crustacea	EC50	Daphnia	0.73 mg/l, 48 h
Fish	LC50	Bluegill (Lepomis macrochirus)	1.1 mg/l, 96 h
Chronic			
Crustacea	NOEC	Daphnia	0.08 mg/l, 21 d
Fish	NOEC	Fish	0.0022 mg/l, 33 d
Sulfuric Acid (CAS 7664-93-9)			
Aquatic			
Acute			
Algae	EC50	Algae	> 100 mg/l, 72 h
Crustacea	EC50	Daphnia	> 100 mg/l, 48 h
Fish	LC50	Bluegill (Lepomis macrochirus)	16 - 28 mg/l, 96 h
Chronic			
Crustacea	NOEC	Daphnia	0.15 mg/l, 35 d
Fish	NOEC	Fish	0.025 mg/l, 65 d

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

No data is available on the degradability of this p roduct.

Bioaccumulative potential

See next page.

Partition coefficient n-octanol / water (log Kow)	
Acetic Acid	-0.17
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	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 your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT	
UN number	UN3109
UN proper shipping name	Organic peroxide type F, liquid (Peroxyacetic acid, type F, stabilized)
Transport hazard class(es)	
Class	5.2
Subsidiary risk	8
Label(s)	5.2
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IP5
Packaging exceptions	152
Packaging non bulk	225
Packaging bulk	225
ERG number	145
IATA	
UN number	UN3109
UN proper shipping name	Organic peroxide type F, liquid (Peroxyacetic acid, type F, stabilized)
Transport hazard class(es)	
Class	5.2
Subsidiary risk	8
Packing group	II
Environmental hazards	No.
ERG Code	5L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.
IMDG	
UN number	UN3109
UN proper shipping name	ORGANIC PEROXIDE TYPE F, LIQUID (PEROXYACETIC ACID, TYPE F, STABILIZED)
Transport hazard class(es)	
Class	5.2
Subsidiary risk	8
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-J, S-R
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not established.

DOT

IATA

IMDG

15. Regulatory information

US federal regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetic Acid (CAS 64-19-7)	Listed.
Peracetic Acid (CAS 79-21-0)	Listed.
Sulfuric Acid (CAS 7664-93-9)	Listed.

SARA 304 Emergency release notification

Hydrogen Peroxide (CAS 7722-84-1)	1000 LBS
Peracetic Acid (CAS 79-21-0)	500 LBS
Sulfuric Acid (CAS 7664-93-9)	1000 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories: Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
Hydrogen Peroxide	7722-84-1	1000	1000 lbs		
Peracetic Acid	79-21-0	500	500 lbs		
Sulfuric Acid	7664-93-9	1000	1000 lbs		

SARA 311/312 Hazardous chemical: No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Peracetic Acid	79-21-0	5 - < 10
Sulfuric Acid	7664-93-9	< 1

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Peracetic Acid (CAS 79-21-0)
Sulfuric Acid (CAS 7664-93-9)

Safe Drinking Water Act (SDWA): Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Sulfuric Acid (CAS 7664-93-9) 6552

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Sulfuric Acid (CAS 7664-93-9) 20 %WV

DEA Exempt Chemical Mixtures Code Number

Sulfuric Acid (CAS 7664-93-9) 6552

FIFRA Information: This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Listed below is the hazard information as required on the pesticide label.

Signal word: DANGER
KEEP OUT OF REACH OF CHILDREN

Hazard statement: CORROSIVE. Causes irreversible eye damage and skin burns. Harmful if swallowed. May be fatal if inhaled. Do not get into eyes, on skin or on clothing. Do not breathe vapors or spray mist.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Sulfuric Acid (CAS 7664-93-9)

US. Massachusetts RTK - Substance List

Acetic Acid (CAS 64-19-7)
Hydrogen Peroxide (CAS 7722-84-1)
Peracetic Acid (CAS 79-21-0)
Sulfuric Acid (CAS 7664-93-9)

US. New Jersey Worker and Community Right-to-Know Act

Acetic Acid (CAS 64-19-7)
Hydrogen Peroxide (CAS 7722-84-1)
Peracetic Acid (CAS 79-21-0)
Sulfuric Acid (CAS 7664-93-9)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetic Acid (CAS 64-19-7)
Hydrogen Peroxide (CAS 7722-84-1)
Peracetic Acid (CAS 79-21-0)
Sulfuric Acid (CAS 7664-93-9)

US. Rhode Island RTK

Acetic Acid (CAS 64-19-7)
Hydrogen Peroxide (CAS 7722-84-1)
Peracetic Acid (CAS 79-21-0)
Sulfuric Acid (CAS 7664-93-9)

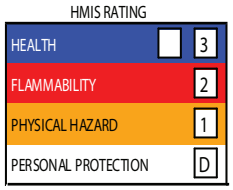
International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	06-04-2015
Revision date	08-23-2016
Version #	02
NFPA ratings	Health: 3 Flammability: 2 Instability: 0



Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision Information

Accidental release measures: Methods and materials for containment and cleaning up
Handling and storage: Conditions for safe storage, including any incompatibilities

NAVIGATOR DILUTION CONTROL SYSTEM INSTRUCTIONS: Remove spray nozzle from empty container. Fill empty container with a newly prepared use solution. Replace spray nozzle. Place correct use dilution label on newly filled container.

CONTINUED FROM LEFT PANEL

Cleaning Procedure: Blood and other body fluids containing HIV-1, HBV and HCV must be thoroughly cleaned from surfaces and objects before application of this product.
Disposal of Infectious Materials: Blood and other body fluids, cleaning materials and clothing must be autoclaved and disposed of according to federal, state and local regulations for infectious waste disposal.
Contact Time: Leave surface wet for 2 minutes with a 4 fluid ounce per gallon of water use solution for HIV, leave surface wet for 5 minutes for HBV and HCV.
PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS and DOMESTIC ANIMALS
DANGER. CORROSIVE. Causes irreversible eye damage and skin burns. Harmful if swallowed. May be fatal if inhaled. Do not get into eyes, on skin or on clothing. Do not breathe vapors or spray mist. Wear goggles or face shield and rubber gloves and protective clothing when handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.
ENVIRONMENTAL HAZARD
This pesticide is toxic to birds, fish and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.
PHYSICAL OR CHEMICAL HAZARDS
STRONG OXIDIZING AGENT. CORROSIVE. Mix only with potable water at 60-80°F. Product must be diluted in accordance with label directions prior to use. This product is not combustible, however, at temperatures exceeding 156°F, decomposition occurs releasing oxygen. The oxygen release could initiate combustion. Never bring this product in contact with other sanitizers, cleaners or organic substances.

FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for 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 the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF SWALLOWED: Call a 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 a 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.
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.
PESTICIDE STORAGE: Never return this product to the original container after it has been removed. Avoid all contaminate, especially dirt, caustic, reducing agents and metals. Contamination and impurities will reduce shelf life and can induce decomposition. In case of decomposition, isolate container, douse container with cool water and dilute this product with large volumes of water. Avoid damage to containers. Keep container closed at all times when not in use. Keep container out of direct sunlight. To maintain product quality, store at temperatures below 86°F. Do not store on wooden pallets.
PROCEDURE FOR LEAK OR SPILL: Stop leak if this can be done without risk. Shut off ignition sources: no flames, smoking, flares, or spark producing tools. Keep combustible and organic materials away. Flush spilled material with large quantities of water. Undiluted material should not enter confined spaces.
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 your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance. If material has been spilled, an acceptable method of disposal is to dilute with at least 20 volumes of water followed by discharge into suitable treatment system in accordance with all local, state, and federal environmental laws, rules, regulations, standards, and other requirements. Because acceptable methods of disposal may vary by location, regulatory agencies should be contacted prior to disposal. This product which is to be discarded should be disposed of as hazardous waste after contacting the appropriate local state or federal agency to determine proper procedures.
CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. In addition, plastic containers may be disposed of by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.
(C-13)

Manufactured for:
TRIPLE S
2 EXECUTIVE PARK DRIVE, BILLERICA, MA 01862

Product No.
48027

7 83218 48027 6

TRIPLE S

NAVIGATOR
Dilution Control System

PERISEPT

62

SPORICIDAL DISINFECTANT CLEANER

HOSPITAL DISINFECTANT

Before Using This Product, Please Read This Entire Label Carefully

Active Ingredients:

Peroxyacetic Acid	5.9%
Hydrogen Peroxide	27.3%
Inert Ingredients:	66.8%
Total	100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER
PELIGRO

See back panel of label for additional precautionary statements and first aid statements

E.P.A. Reg. No. 10324-214-12120
E.P.A. Est. No. 8325-PA-01

NET CONTENTS: 2 Liters (67.8 oz.)

TRIPLE S

NAVIGATOR
Dilution Control System

62

PERISEPT

SPORICIDAL DISINFECTANT CLEANER

NET CONTENTS: 2 Liters (67.8 oz.)

FOR PRODUCT INFORMATION: 1-800-323-2251 · www.triple-s.com

- ***Effective in 2 minutes against C. difficile spores.***
- ***Will not bleach uniforms or fabrics.***
- ***Cuts cleaning time.***
- ***Is a heavy duty disinfectant cleaner that cleans, disinfects and deodorizes in one labor saving step.***
- ***Leaves no visible residue.***
- ***No rinsing.***
- ***Good for use with microfiber cloths.***
- ***May be used to clean and disinfect finished floors. Cleans and disinfects without dulling gloss.***
- ***Do not use on marble or un-sealed/un-coated terrazzo floors.***
- ***This product does not damage furnishings, equipment or clothing.***
- ***Economical concentrate.***
- ***Intended for use with the Triple S Navigator Dilution Control System.***
- ***Closed loop automated dispensing reduces employee exposure to concentrate product.***
- ***Triple S Navigator Dilution Control System makes accurate dispensing quick and easy.***
- ***Designed for daily use on common materials found in hospitals.***

Daily use product with Clostridium difficile spore efficacy allows for product standardization and eliminates need for bleach. Effective against Multidrug Resistant Organisms MDROs Staphylococcus aureus, Resistant to Methicillin MRSA, Staphylococcus aureus, Community Associated Methicillin Resistant CA-MRSA, Intermediate Vancomycin Resistance VISA, Enterococcus faecalis Resistant to Vancomycin VRE, Escherichia coli Extended-Spectrum Beta Lactamase producing ESBL, Klebsiella pneumoniae Carbapenemase producer KPC.

MATERIAL COMPATABILITY

Finished floors, aluminum, chrome, glazed ceramic tile, laminated surfaces, plastic and painted surfaces, polished nickel finish, stainless steel, vinyl.
NOTE: This product is compatible with the listed materials. If product is intended to be used on any other surface, it is recommended that you apply product to a smaller test area to determine compatibility before proceeding with its use.

MEDICAL USE SITES

Assisted Living or Full Care Nursing Homes, Ambulatory Surgical Centers (ASC), Critical Care Units (CCUs), Emergency Rooms (ERs), Operating Rooms, bedside tables, CAT or Computerized Axial Tomography equipment, diagnostic equipment, dialysis machines, hard, non-porous hospital or medical surfaces, plastic mattress covers, PVC tubing, shower fixtures, side rails, toilet handholds, wash basins, wheelchairs.

DIRECTIONS FOR USE

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

Hospital/Health facilities

This product use solution cleans, disinfects and deodorizes hard, nonporous hospital/medical surfaces in one step with no rinsing required.
This product is not to be used as a terminal sterilant/high level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into or in contact with the bloodstream, or normally sterile areas of the body, or (2) contacts intact mucous membranes, but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to preclean or decontaminate critical or semi-critical medical devices prior to sterilization or high level disinfection.

SPORICIDAL

Clostridium difficile This product kills and/or inactivates spores of *Clostridium difficile* on hard, nonporous surfaces. This product is effective against *Clostridium difficile* endospores after a 2-minute exposure time.
SPECIAL INSTRUCTIONS FOR CLEANING PRIOR TO DISINFECTION AGAINST *Clostridium difficile* SPORES
Personal Protection: Wear appropriate barrier protection such as gloves, gowns, masks or eye covering.

Contact time: Leave surface wet for 2 minutes with 4 fluid ounces per gallon use solution.
Cleaning Procedure: Fecal matter/waste must be thoroughly cleaned from surfaces/objects before disinfection by application with a clean cloth, mop, and/or sponge saturated with the disinfectant product. This cleaning may be accomplished with any cleaning solution, including this product. Cleaning is to include vigorous wiping and/or scrubbing, until all visible soil is removed. Special attention is needed for high-touch surfaces. Surfaces in patient rooms are to be cleaned in an appropriate manner, such as from right to left or left to right, on horizontal surfaces, and top to bottom, on vertical surfaces, to minimize spreading of the spores. Restrooms are to be cleaned last. Do not reuse soiled cloths.
Infectious Materials Disposal: Materials used in the cleaning process that may contain feces/wastes are to be disposed of immediately in accordance with local regulations for infectious materials disposal.
DISINFECTION IN INSTITUTIONS Hospitals, Nursing Homes, and Other Health Care Institutions: At 4 fluid ounces per gallon of water and in the presence of 5% blood serum and 400 ppm hard water with a 2-minute contact time, this product is effective against the following organisms on hard non-porous inanimate surfaces: Community Acquired Methicillin Resistant *Staphylococcus aureus* CA-MRSA 300, *Escherichia coli*, *Escherichia coli* with beta lactamase resistance (ESBL), *Klebsiella pneumonia*, *Klebsiella pneumonia* Carbapenem Resistant, Methicillin Resistant *Staphylococcus aureus* MRSA, *Pseudomonas aeruginosa*, *Salmonella enterica*, *Staphylococcus aureus*, Vancomycin Intermediate Resistant *Staphylococcus aureus* VISA, Vancomycin Resistant *Enterococcus faecalis* VRE.
***VIRUCIDAL PERFORMANCE:** At 4 fluid ounces per gallon of water use level and in the presence of 5% blood serum and 400 ppm hard water with a 2-minute contact time, this product was evaluated and found to be effective against the following viruses on hard non-porous surfaces: Adenovirus type 5, Herpes simplex virus type 1, Herpes simplex virus type 2, Human Immunodeficiency virus type 1, Influenza A virus, Norovirus, Rotavirus, Vaccinia virus.
***VIRUCIDAL PERFORMANCE:** At 4 fluid ounces per gallon of water use level and in the presence of 5% blood serum and 400 ppm hard water with a 5-minute contact time, this product was evaluated and found to be effective against the following viruses on hard non-porous surfaces: Hepatitis B Virus, Hepatitis C Virus. At 4 fluid ounces of this product per gallon of water and in the presence of 5% organic load, this product was proven to be effective against Duck Hepatitis B Virus HBV and Bovine Viral Diarrhea Virus BVDV, surrogate for human Hepatitis C virus, with a contact time of 5 minutes.
PREPARATION OF DISINFECTION/VIRUCIDAL* USE SOLUTION: For use with water hardness up to 400 ppm. Before using this product, food products and packaging materials must be removed from the room or carefully protected. For heavily soiled areas, a preliminary cleaning is required. Apply 4 fluid ounces of this product per gallon of water use solution to disinfect hard, inanimate, non-porous surfaces. Apply use solution with a brush, cloth, mop, sponge or mechanical spray device, hand pump, coarse pump or trigger spray device, thoroughly wetting surfaces as required. For sprayer applications, spray 6-8 inches from surface. Do not breathe spray. Rub with brush, sponge, mop or cloth. Treated surfaces must remain wet for 2 minutes (5 minutes for HBV and HCV). Rinse or allow to air dry. Rinsing is not necessary unless floors are to be coated with finish or restorer. Rinse all surfaces that come in contact with food such as countertops, appliances, tables and stovetops with potable water before reuse. Change cloth, sponge or towels frequently to avoid redeposition of soil. Do not use this product to clean or disinfect utensils, glassware, dishes or interior surfaces of appliances. A fresh solution must be prepared at least daily or when use solution becomes visibly dirty.
***KILLS HIV, HBV AND HCV ON PRECLEANED ENVIRONMENTAL SURFACES/ OBJECTS PREVIOUSLY SOILED WITH BLOOD/BODY FLUIDS** in health care 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 1 HIV-1 associated with AIDS and Duck Hepatitis B Virus HBV and Bovine Viral Diarrhea Virus BVDV surrogate for human Hepatitis C virus.
SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATION AGAINST HIV-1, HBV AND HCV ON SURFACES/OBJECTS SOILED WITH BLOOD/BODY FLUIDS.
Personal Protection: Clean up must always be done wearing protective latex gloves, gowns, masks and eye protection. Specific barrier protection items to be used when handling items soiled with blood or body fluids are disposable latex gloves, gowns, masks and eye coverings.

CONTINUED ON RIGHT PANEL

SAFETY DATA SHEET

Date Prepared : 06/19/2015
SDS No : Triple S_ 62 Perisept RTU

SSS Navigator #62 Perisept Sporicidal Disinfectant Cleaner RTU

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SSS Navigator #62 Perisept Sporicidal Disinfectant Cleaner RTU
GENERAL USE: Disinfectant, Virucide, Fungicide
PRODUCT DESCRIPTION: READY-TO-USE
PRODUCT CODE: 48027-RTU
CHEMICAL FAMILY: See Concentrate Information

DISTRIBUTOR

Triple S
2 Executive Park Drive
Billerica, MA 01862
http://www.triple-s.com
Customer Service: 978-667-7900

24 HR. EMERGENCY TELEPHONE NUMBERS

888-779-1339

EPA REG. NO.: 10324-214-12120

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Eye Irritation, Category 2A
Skin Irritation, Category 3

GHS LABEL

Exclamation mark

SIGNAL WORD: WARNING

HAZARD STATEMENTS

Causes serious eye irritation.
Causes mild skin irritation.
May be harmful if swallowed.

PRECAUTIONARY STATEMENT(S)

Prevention:

Do not get in eyes, on skin, or on clothing.
Keep container tightly closed.
Keep out of reach of children.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN: Gently wash with plenty of soap and water.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Storage:

Store in a closed container.

Disposal:

Dispose of contents/container according to all local, state and Federal regulations.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Light color version of concentrate.

IMMEDIATE CONCERNS: Eye & Skin irritant

POTENTIAL HEALTH EFFECTS

EYES: Contact causes eye irritation.

SKIN: Skin irritant with prolonged or repeated contact.

SKIN ABSORPTION: None Expected.

INGESTION: Although of moderate to low toxicity, ingestion of large amounts can cause gastrointestinal irritation, nausea, vomiting, diarrhea.

INHALATION: Mist is irritating to nose, throat and lungs.

REPRODUCTIVE TOXICITY

REPRODUCTIVE EFFECTS: No known significant effects or critical hazards.

TERATOGENIC EFFECTS: No known significant effects or critical hazards.

CARCINOGENICITY: No listed substance

MUTAGENICITY: No known significant effects or critical hazards.

MEDICAL CONDITIONS AGGRAVATED: Previous skin conditions such as dermatitis may be aggrevated.

ROUTES OF ENTRY: Eye, skin, ingestion.

CANCER STATEMENT: None

WARNING CAUTION LABELS: Irritant

PHYSICAL HAZARDS: None Expected.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%
Refer to concentrate Product Safety Data Sheet for ingredient information	< 10

4. FIRST AID MEASURES

EYES: Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Seek medical attention immediately.

SKIN: Wash with soap and water. Get medical attention if irritation develops or persists.

INGESTION: Get immediate medical attention. Do not induce vomiting unless instructed to do so by poison center or physician.

INHALATION: Remove victim to fresh air and monitor. Seek medical advise if irritation persists.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Burning sensation with tearing, redness.

SKIN: Prolonged contact will cause irritation marked by redness, burning sensation.

SKIN ABSORPTION: Not Established

INGESTION: Irritation of mouth, throat, along with stomach upset, vomiting.

INHALATION: Irritation of nose, throat and lungs with coughing, sneezing, possible difficulty breathing.

ACUTE TOXICITY: Not Established

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: NA = Not Applicable

GENERAL HAZARD: NA = Not Applicable

EXTINGUISHING MEDIA: Not required. Water based material.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Avoid walking in product. Wipe up or otherwise flush small spills to sanitary sewer.

LARGE SPILL: Avoid walking in material. Prevent product from entering into stream, soil, storm sewer or other bodies of water.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Avoid discharges into open waterways.

LAND SPILL: Avoid discharge to soil.

GENERAL PROCEDURES: Isolate spill or leak area immediately. Keep unauthorized personnel away. Do not touch or walk through spilled material. Prevent entry into waterways, sewers, or confined areas. Absorb with dry earth, sand or other non-combustible material and transfer to containers.

SPECIAL PROTECTIVE EQUIPMENT: Eye protection, rubber gloves, rubber boots to protect feet.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Close container after use.

HANDLING: Wear chemical resistant rubber or neoprene gloves and eye safety goggles/full face shield when handling.

STORAGE: Store in area inaccessible to children.

STORAGE TEMPERATURE: Store at ambient temperatures.

STORAGE PRESSURE: Store at ambient atmospheric pressure.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: No special requirements.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Safety glasses with side shields.

SKIN: Rubber or other chemical resistant gloves.

RESPIRATORY: A respirator is not needed under normal and intended conditions of product use.

PROTECTIVE CLOTHING: No special requirements.

WORK HYGIENIC PRACTICES: Wash with soap and water after handling. Do not eat, drink or smoke while using product.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Characteristic.

ODOR THRESHOLD: Not Established

COLOR: Lighter color of concentrate.

pH: 2.5

PERCENT VOLATILE: >90

FLASH POINT AND METHOD: None

FLAMMABLE LIMITS: N/A

AUTOIGNITION TEMPERATURE: NA = Not Applicable

VAPOR PRESSURE: ≤ 20 mm Hg at (68°F)

VAPOR DENSITY: ≥ 1 Air = 1

BOILING POINT: 212^{o} F; 100^{o} C

FREEZING POINT: 32^{o} F; 0^{o} C

MELTING POINT: NA = Not Applicable

THERMAL DECOMPOSITION: Not Available

SOLUBILITY IN WATER: Complete

EVAPORATION RATE: (Water =1) 1.0

DENSITY: 8.34 at (68°F)

Notes: Estimated

SPECIFIC GRAVITY: 1.01 grams/ml.

Notes: Estimated

VISCOSITY: Water thin.

(VOC): Not Established

10. STABILITY AND REACTIVITY

REACTIVITY: Stable

HAZARDOUS POLYMERIZATION: No

CONDITIONS TO AVOID: Not Established

POSSIBILITY OF HAZARDOUS REACTIONS: None Expected.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

INCOMPATIBLE MATERIALS: Not Established

11. TOXICOLOGICAL INFORMATION

ACUTE

EYES: Not Established

DERMAL LD_{50}: Not Established

SKIN ABSORPTION: None Expected.

ORAL LD_{50}: Not Established

INHALATION LC_{50}: Not Established

EYE EFFECTS: Moderate to severe eye irritant.

SKIN EFFECTS: May irritate skin with prolonged or repeated contact.

CARCINOGENICITY

IARC: None known.

IRRITATION: Irritant

SENSITIZATION: No known significant effects or critical hazards.

NEUROTOXICITY: No known significant effects or critical hazards.

GENETIC EFFECTS: No known significant effects or critical hazards.

REPRODUCTIVE EFFECTS: No known significant effects or critical hazards.

TARGET ORGANS: No known significant effects or critical hazards.

MUTAGENICITY: No known significant effects or critical hazards.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Not Established

ECOTOXICOLOGICAL INFORMATION: Not Established

AQUATIC TOXICITY (ACUTE): Not Established

CHEMICAL FATE INFORMATION: Not Established

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Small amounts (less than 5 gallons) may be disposed of in sanitary sewer. Consult local authorities for additional disposal information.

FOR LARGE SPILLS: Consult with local and state authorities for large volume disposal.

PRODUCT DISPOSAL: See above.

EMPTY CONTAINER: Rinse container with clear water. Offer container for recycling, or dispose of in trash.

RCRA/EPA WASTE INFORMATION: NA = Not Applicable

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not intended to be shipped away from end-user site.

AIR (ICAO/IATA)

SHIPPING NAME: Not intended to be shipped away from end-user site.

VESSEL (IMO/IMDG)

SHIPPING NAME: Not intended to be shipped away from end-user site.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Health - Acute

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** No

313 REPORTABLE INGREDIENTS: NA = Not Applicable

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: NA = Not Applicable

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: NA = Not Applicable

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All ingredients are listed on the TSCA Chemical Inventory.

CALIFORNIA PROPOSITION 65: No listed substance

CARCINOGEN: No listed substance

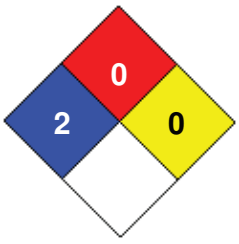
16. OTHER INFORMATION

PREPARED BY: Regulatory Affairs Department **Date Prepared:** 06/19/2015

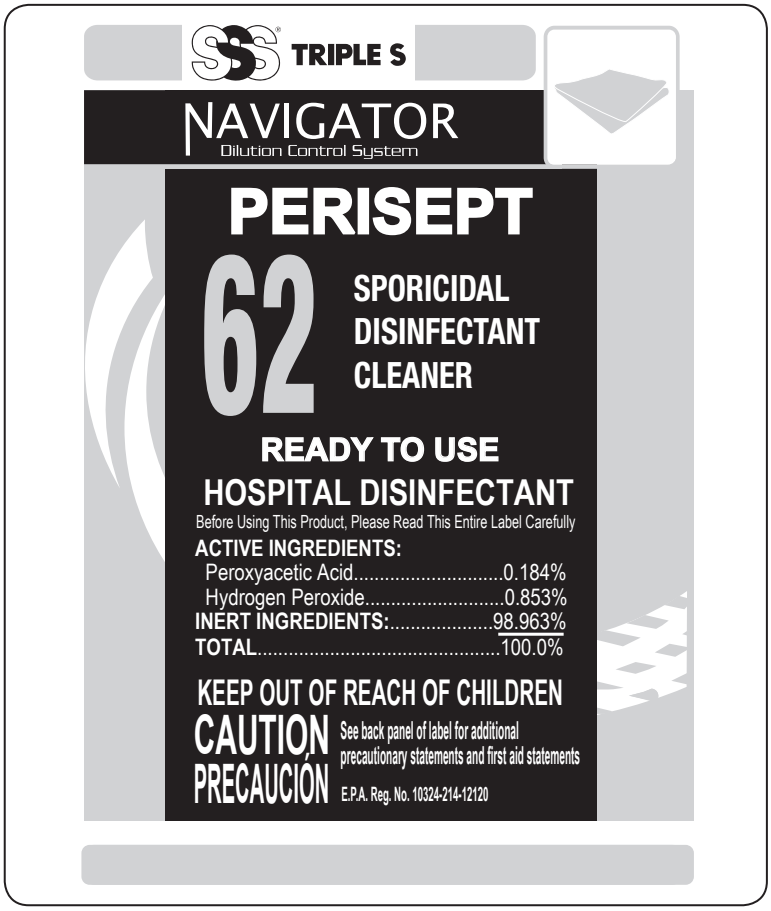
HMIS RATING

HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

NFPA CODES



MANUFACTURER DISCLAIMER: This company cannot anticipate all conditions of handling and use of this product. Therefore, this company accepts no responsibility for results obtained by the application of this information, or the safety and suitability of the product either alone or in combination with other products. It is the responsibility of the employer and/or user to provide a safe workplace, using health and safety information contained herein as a guide. This company will accept no liability for damages or losses incurred from the improper handling and use of this product.



PERISEPT

READY TO USE SPORICIDAL DISINFECTANT CLEANER

Follow the directions for use on the original container label when applying this product.

DIRECTIONS FOR USE

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

This product is not to be used as a terminal sterilant/high level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into or in contact with the bloodstream, or normally sterile areas of the body, or (2) contacts intact mucous membranes, but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to preclean or decontaminate critical or semi-critical medical devices prior to sterilization or high level disinfection.

Before using this product, food products and packaging materials must be removed from the room or carefully protected. For heavily soiled areas, a preliminary cleaning is required. Apply this product to disinfect hard non-porous surfaces. Apply use solution with a brush, cloth, mop, sponge, mechanical spray device or trigger spray device, thoroughly wetting surfaces as required. For sprayer applications, spray 6-8 inches from surface. Do not breathe spray. Rub with brush, sponge, mop or cloth. Treated surfaces must remain wet for 2 minutes (5 minutes for HBV and HCV). Rinse or allow to air dry. Rinsing is not necessary unless floors are to be coated with finish or restorer. Rinse all surfaces that come in contact with food such as countertops, appliances, tables and stovetops with potable water before reuse. Change cloth, sponge or towels frequently to avoid redeposition of soil. Do not use this product to clean or disinfect utensils, glassware, dishes or interior surfaces of appliances. A fresh solution must be prepared at least daily or when use solution becomes visibly dirty.

SPECIAL INSTRUCTIONS FOR CLEANING PRIOR TO DISINFECTION AGAINST Clostridium difficile SPORES

Personal Protection: Wear appropriate barrier protection such as gloves, gowns, masks or eye covering.

Contact time: Leave surface wet for 2 minutes with 4 fluid ounces. per gallon use solution.

Cleaning Procedure: Fecal matter/waste must be thoroughly cleaned from surfaces/objects before disinfection by application with a clean cloth, mop, and/or sponge saturated with the disinfectant product. This cleaning may be accomplished with any cleaning solution, including this product. Cleaning is to include vigorous wiping and/or scrubbing, until all visible soil is removed. Special attention is needed for high-touch surfaces. Surfaces in patient rooms are to be cleaned in an appropriate manner, such as from right to left or left to right, on horizontal surfaces, and top to bottom, on vertical surfaces, to minimize spreading of the spores. Restrooms are to be cleaned last. Do not reuse soiled cloths.

Infectious Materials Disposal: Materials used in the cleaning process that may contain feces/wastes are to be disposed of immediately in accordance with local regulations for infectious materials disposal.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS and DOMESTIC ANIMALS

(**NOTE:** The following precautionary statements are based on the product concentrate only, per EPA established guidelines) **DANGER.** Harmful if swallowed. May be fatal if inhaled. Do not get into eyes, on skin or on clothing. Do not breathe vapors or spray mist. Wear goggles or face shield and rubber gloves and protective clothing when handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

PHYSICAL OR CHEMICAL HAZARDS

STRONG OXIDIZING AGENT. Product must be diluted in accordance with label directions prior to use. This product is not combustible; however, at temperatures exceeding 156oF, decomposition occurs releasing oxygen. The oxygen release could initiate combustion. Never bring this product in contact with other sanitizers, cleaners or organic substances.

FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for 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 the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF SWALLOWED: Call a 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 a 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.
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal
PESTICIDE STORAGE: Never return this product to the original container after it has been removed. Avoid all contaminate, especially dirt, caustic, reducing agents and metals. Contamination and impurities will reduce shelf life and can induce decomposition. In case of decomposition, isolate container, douse container with cool water and dilute this product with large volumes of water. Avoid damage to containers. Keep container closed at all times when not in use. Keep container out of direct sunlight. To maintain product quality, store at temperatures below 86oF.
PROCEDURE FOR LEAK OR SPILL: Stop leak if this can be done without risk. Shut off ignition sources: no flames, smoking, flares, or spark producing tools. Keep combustible and organic materials away. Flush spilled material with large quantities of water. Undiluted material should not enter confined spaces.
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 your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance. If material has been spilled, an acceptable method of disposal is to dilute with at least 20 volumes of water followed by discharge into suitable treatment system in accordance with all local, state, and federal environmental laws, rules, regulations, standards, and other requirements. Because acceptable methods of disposal may vary by location, regulatory agencies should be contacted prior to disposal. This product which is to be discarded should be disposed of as hazardous waste after contacting the appropriate local state or federal agency to determine proper procedures.

Product No.
48027

Manufactured for:
TRIPLE S
BILLERICA, MA 01862
800-323-2251 www.triple-s.com

FOR EMERGENCY MEDICAL INFORMATION 1-888-779-1339
FOR CUSTOMER SERVICE
1-800-323-2251
www.triple-s.com

General Efficacy Claims

- Effective in 2 minutes against C. difficile spores.
- Will not bleach uniforms or fabrics.
- Cuts cleaning time.
- Is a heavy duty disinfectant cleaner that cleans, disinfects and deodorizes in one labor saving step.
- Leaves no visible residue.
- No rinsing.
- Good for use with microfiber cloths.
- May be used to clean and disinfect finished floors. Cleans and disinfects without dulling gloss.
- Do not use on marble or un-sealed/un-coated terrazzo floors.
- This product does not damage furnishing, equipment or clothing.
- Economical concentrate.
- Intended for use with the Triple S Navigator Dilution Control System.
- Closed loop automated dispensing reduces employee exposure to concentrate product. Triple S Navigator Dilution Control System makes accurate dispensing quick and easy.
- Designed for daily use on common materials found in hospitals.

NON FOOD CONTACT HARD SURFACE DISINFECTION:

This product disinfects, as it cleans, in one operation. This product is to be used to disinfect floors, walls, and other hard nonporous surfaces such as tables, chairs, countertops, bathroom fixtures, sinks, bed frames, shelves, racks, carts, refrigerators, coolers, glazed tile, linoleum, vinyl, glazed porcelain, plastic, stainless steel, or glass. Areas of use in hospitals include surgical and obstetrical suite; housekeeping services; physical therapy departments; nursing services; autopsy facilities. Also use this product in hospitals and nursing homes, other health-care facilities schools, colleges, veterinary clinics, animal life science laboratories, industrial facilities, dietary areas, office buildings, recreational facilities, retail and wholesale establishments.

COMBINATION DISINFECTION AND CLEANING:

This product is effective against the labeled organisms at 4 fluid ounces per 1 gallon of water in hard water (400 ppm as CaCO3) and 5% blood serum on hard nonporous surfaces. For heavily soiled areas a precleaning step is required. Apply solution with mop, cloth, sponge, brush, scrubber, or coarse spray device or by soaking so as to wet all surfaces thoroughly. Allow to remain wet for required contact of 5 minutes and then either allow to air dry or if desired remove solution and entrapped soil with a clean wet mop, cloth, or wet vacuum pickup. Prepare a fresh solution daily or when it becomes soiled or diluted.

TO DEODORIZE:

Apply this product use solution to completely wet all surfaces. Let stand for 2 minutes to kill odor causing bacteria then wipe or allow to air dry. For heavily soiled areas, a precleaning step is required.

Cleaning and Disinfecting for MDROs

Standard, consistent cleaning and disinfecting practices are important in preventative approaches to managing patients with *C. difficile* spores (Multi-Drug Resistant Organisms (MDROs). Providing cleaning and disinfecting assists in preventing cross-transmission of resistant microorganisms to patient, staff or visitors and to other surfaces that may come in contact with patients, staff or visitors. Training and education of Environmental Services staff on the management of *C. difficile* spores (MDRO) cross-transmission is critical to reducing the possibility of further *C. difficile* spore transmissions. Remember the basic rules of breaking the chain of infection and its application to *C. difficile* spores (MDRO) management.

C. difficile spores have been recovered from bed rails, telephones, call lights, light switches, flush handles, faucet handles, doorknobs, chairs, wheelchairs, over-the-bed tables and computer keyboards. Any place that a patient, staff or visitor touches can be contaminated with *C. difficile* spores and transported to all of the above and more. Hand washing is one of the major processes in controlling *C. difficile* spores (MDROs). The next major step is cleaning and disinfecting high-touch areas throughout the facility. Cleaning and disinfecting these areas only once per 24 hours is no longer acceptable in managing the transmission of *C. difficile* spores within a healthcare facility.

Frequent application of disinfectant to high-contact surface areas is extremely important. It does no good to have the chemical in the bottle and not on the surfaces of the facility. The biggest contribution that Environmental Services staff can provide in the management of *C. difficile* spores (MDROs) is the frequency of cleaning and disinfecting of high-contact surface areas.

Disinfectants

Hospital-grade disinfectants approved by the Environmental Protection Agency (EPA) are recommended. Few commercial products meet these requirements for killing *C. difficile* spores. The following is an example of the proper documentation and chemical efficacy required for MDRO management for the Environmental Services Department.

EPA-registered, hospital-grade disinfectant cleaner:

- Kills the *C. difficile* spores with a 99.9999% log reduction.
- Kills HIV-1, MRSA, VRE, Herpes Simplex I and II, and other pathogens.
- Rinse-free
- Can be dispensed into buckets
- Can be used with course sprayer or pour-top bottles

What is the difference between vegetative state and *C. difficile* spores?

Before disinfecting the surface, it is important to have some insight into what is being cleaned and disinfected. One of the most common questions asked is, "What is the difference between *C. difficile* spores and vegetative state?"

This question was answered during a presentation at the annual scientific meeting of the Society of Healthcare Epidemiology of America (SHEA) in April 2006. The vegetative state is the active growth phase of the organism. A spore is a thick-walled resting cell produced by the organism to protect itself from unfavorable environmental conditions. When *C. difficile* in the vegetative state is challenged, but not killed, the bacterium forms a spore. *C. difficile* vegetative cells can survive up to 24 hours and spores up to 5 months.

As stated in the SHEA position paper, *C. difficile* is present in feces and the major reservoirs of *C. difficile*-infected patients (both symptomatic and asymptomatic), and items or surfaces contaminated with feces. *C. difficile* spores are transferred to patients primarily via the hands of healthcare personnel who have direct contact with infected patients or who have touched a contaminated surface or item. Documented cases of *Clostridium Difficile* Associated Disease (CDAD) have been linked to a contaminated commode chair, a nursery baby bath, and contaminated electronic rectal thermometer handles.

What environmental disinfectants are effective against *C. difficile*?

Few studies have examined the use of chemical disinfectants for inactivation and/or removal of *C. difficile* spores. There are few well-controlled studies investigating cleaning and disinfection methods. Quaternary ammonium compounds and phenols are not effective in killing spores and are only effective against *C. difficile* in the vegetative state. Since some strains of *C. difficile* may display increased levels of spore production when exposed to non-based Hydrogen Peroxide and Peroxyacetic cleaning agents, and spores are more resistant than vegetative cells to surface disinfectants, some have recommended the use of hypochlorite (bleach) for disinfection of rooms of patients with CDAD, and for routine disinfecting in units with high *C. difficile* rates. While this has been a standard practice prior to the introduction of Hydrogen Peroxide and Peroxyacetic cleaning agents, the use of bleach on surfaces have become costly over time to do the damage caused to facility surfaces.

Because person-to-person contact (via hands) is the main way this organism is spread between patients, hand washing, barrier precautions, and meticulous environmental cleaning of fecally contaminated surfaces (e.g. commodes, bathrooms) for all patients is required to prevent the spread of *C. difficile*. Low-level disinfectants such as Quats do not kill spores. However, the cleaning process using low-level disinfectants removes not only soil but also reduces the number of microorganisms on the surface.

Recommendations to prevent transmission of *C. difficile*?

Regardless of the disinfectant used, successful environmental control of *C. difficile* requires a collaborative approach between Environmental Services, Infection Control and Nursing services. Surfaces likely to become contaminated with feces and high-hand contact surfaces need to be identified, the cleaning process defined (when and how), accountability for cleaning established (who), and compliance monitored.

The CDC recommends that surfaces should be kept clean and body substance spills should be promptly cleaned up as outlined in the Guideline for Environmental Infection Control (www.cdc.gov). Hospital cleaning products can be used for routine cleaning. Hydrogen Peroxide with Peroxyacetic Acid disinfectants such as Perisept have been used with success for surface disinfection in those patient-care areas where surveillance indicates ongoing transmission of *C. difficile*.

Note: At present, there are few EPA-registered products with specific claims for inactivating *C. difficile* spores. Perisept is one of two products on the market to kill *C. difficile* spores without using bleach. Don't be confused by the number of registered products that have claims against *C. difficile* in the vegetative state. The vegetative cells are killed by low-level disinfectants. The spores must be killed with a high-level disinfectant such as Perisept.

Disinfecting Environmental Surfaces

Recommendation:

Create separate environmental service cart(s) for cleaning and disinfecting MDRO patient rooms. There should only be enough equipment and supplies to clean and disinfect one area at a time. The cart should be cleaned and disinfected before moving to the next area that is contaminated by a MDRO. This cart should be labeled, if possible, on the door of the cart with "MDRO Use Only."

Recommendation:

Provide environmental service specialized training for the management of MDROs. The staff that receives this training should work closely with an Infection Control Practitioner and Nursing staff. These staff members, while on duty, should be provided with some type of communication so that the Infection Control Practitioner or Nurse Management can reach them.

Cleaning and Disinfecting Process

Recommendation:

Caution: When cleaning and disinfecting a patient's room or bathroom that is contaminated with *C. difficile* spores use Perisept and follow these practices:

1. Wear all PPE (Personal Protective Equipment)
2. Ensure proper ventilation
3. Ensure patient safety
4. Ensure staff and visitor safety
5. Use disposable items when possible
6. Disinfect all equipment after use
7. Allow proper dwell time
8. Wash hands using approved healthcare facility procedures
9. Because Perisept doesn't leave behind residue there is no need to rinse the surface. Follow the manufacture's instructions on the bottle label.

Cleaning Process for Occupied and Discharge Patient Rooms Contaminated with *C. difficile* Spores (MDRO)

Note: Place environmental service cart outside of patient room. Make sure that the cart doesn't block the corridor.

- Use proper PPE.
- Place a "*Wet Floor*" sign at the entrance of the patient's room.
- Use proper dwell times as stated on the manufacture's label.
- High dusting vents and ledges using a high duster. This procedure will be performed using the "Wet Method and at Discharge."
- Clean sink using Perisept disinfectant cleaner and a **green** microfiber cloth.
- Refill dispensers.
- Carefully remove soiled linen and place in the proper linen bag.
- Clean entire patient bed using Perisept sporicidal disinfectant cleaner and a **red** microfiber cloth.
- Clean over the bed table and night stand using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Clean and disinfect counter top using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Clean and disinfect phones, cords, call buttons, and TV remote controls using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Remove litter.
- Remove medical waste.
- Empty trash receptacles.
- Clean and disinfect trash receptacles using a wet **green** microfiber cloth with Perisept sporicidal disinfectant cleaner.
- Remove and replace sharps containers when ¾ full, or when needed.
- Spot walls using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Clean high-touch areas such as switches and handles using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Dust mop floors using a dry **green** microfiber dry pad, or vacuum.

Patient Room

Note: Do not use any cloths that cleaned and disinfected the patient room in the bathroom, or microfiber cloths used in the bathroom in the patients room.

Daily

- Clean and disinfect sink using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Refill dispensers.
- Clean and disinfect handrails and footboards on patient bed using Perisept sporicidal disinfectant cleaner and a **red** microfiber cloth.
- Clean and disinfect and over the bed table and night stand using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Clean and disinfect counter tops using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Remove litter.
- Remove medical waste.
- Empty trash receptacles. Clean and disinfect using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Remove soiled linen.
- Remove and replace sharps containers when ¾ full, or when needed.
- Clean and disinfect walls using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Clean and disinfect high-touch areas such as switches and handles using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Dust mop floors using a dry **green** microfiber pad.
- Clean and disinfect windowsills and frames using Perisept sporicidal disinfectant cleaner and a wet **green** microfiber cloth.
- Clean and disinfect baseboards using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Clean and disinfect furniture surfaces using a **green** microfiber cloth.
- Clean and disinfect vents and ledges using Perisept sporicidal disinfectant cleaner and a microfiber high duster. This procedure will be performed as needed and at discharge.
- Wash walls using the microfiber wall washing 18-inch frame and extension pole. This procedure will be performed as needed and at discharge.

Restrooms

Daily

- Clean and disinfect mirrors using Perisept sporicidal disinfectant cleaner and a **blue** microfiber glass and mirror cloth.
- Clean and disinfect and sink using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Refill dispensers.
- Clean and disinfect counter tops using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Clean and disinfect toilet using Perisept sporicidal disinfectant cleaner and a **yellow** microfiber cloth.
- Clean and disinfect partitions using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Empty trash receptacles, clean and disinfect using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Replace trash receptacle liners.
- Dust mop floors using a dry **green** microfiber pad.
- Mop floors using Perisept sporicidal disinfectant cleaner and a **blue** microfiber wet pad.
- Clean and disinfect vents and ledges using Perisept sporicidal disinfectant cleaner and a microfiber high duster.
- Clean and disinfect furniture surfaces (chairs and counter tops) using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Clean and disinfect walls using Perisept sporicidal disinfectant cleaner and the microfiber wall washing 18-inch frame and extension pole.
- Clean and disinfect windowsills and frames using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Clean and disinfect baseboards using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.

- Clean and disinfect walls using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Clean and disinfect high-touch areas such as switches and handles using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Dust mop floors using a dry **green** microfiber pad.
- Clean and disinfect windowsills and frames using Perisept sporicidal disinfectant cleaner a wet **green** microfiber cloth.
- Clean and disinfect baseboards using Perisept sporicidal disinfectant cleaner and a **green** microfiber cloth.
- Clean and disinfect furniture surfaces using a **green** microfiber cloth.
- Clean and disinfect vents and ledges using Perisept sporicidal disinfectant cleaner and a microfiber high duster. This procedure will be performed as needed and at discharge.
- Wash walls using the microfiber wall washing 18-inch frame and extension pole. This procedure will be performed as needed and at discharge.

Note: All used microfiber pads should be placed in waterproof bags and sent to laundry for proper washing.

Regular, routine cleaning and disinfecting of environmental surfaces and items is important in reducing cross-transmission of MDROs. The frequency of these activities should be based on input from Environmental Services, Infection Control and Nursing Management.

"Wet" dusting with disinfecting solution is the best method for dusting all patient-care areas. This process helps reduce the transmission of MDROs. This practice should be taught to all Environmental Service staff. It also reduces the bio-load of the resistant organisms on equipment and surfaces. The recommended manufacture's duration of the disinfecting solution on a surface and the use of microfiber cloths provide the best outcome for cleaning and disinfecting surfaces that are contaminated with MDROs.

It is never recommended to reuse a microfiber cloth after it dries out, or reintroduce the microfiber cloth into the clean disinfecting solution. By not reintroducing the microfiber cloth back into clean disinfecting solution, the proper chemical disinfectant strength can be maintained throughout the cleaning process. Increased frequency of cleaning and disinfecting applications must be considered during an outbreak or cluster of MDRO cases. The Environmental Service Specialist must clean and disinfect the areas using the same steps each time the application is performed. Using the same steps reduces the possibility of high-touch areas being overlooked and further assures the application was done correctly.

Restrooms and patient rooms used by *C. difficile* spores (MDROs)-infected or colonized patients should be cleaned and disinfected at least twice daily with Perisept sporicidal disinfectant cleaner. As with all areas that are contaminated with *C. difficile* spores (MDROs), the more cleaning and disinfecting that occurs, the less bio-load is on the surfaces.

Recommendation:
Consider the second cleaning and disinfecting application to be done by second-shift Discharge Specialist.

Trash

No special precautions are necessary for MDRO trash. Proper PPE should be used at all times when trash is sorted or handled.

Linen

Soiled linen should be contained/bagged at the location of use (patient area). No special precautions are necessary for MDRO patients' dirty linen, such as double bagging. Use waterproof bags to contain fluids to prevent/reduce contamination of the environment and staff. Do not sort or rinse soiled linens with body substances in patient-care areas. Follow your healthcare facility's laundry polices and procedure. Healthcare facilities should follow local or State health department regulations for laundering. Linen handlers should wear PPE to prevent contamination from soiled linens. Wash or sanitize hands after glove use.

Patient Equipment

Any equipment used by patients with MDRO infections should be cleaned and disinfected before leaving the area. Examples include wheelchairs, I.V. poles, equipment carts, and weight scales. Equipment from MDRO-infected area should not be moved or used until it has been thoroughly cleaned and disinfected.

Note: In some cases, patient equipment must be returned to Central Sterile Supply (CS). If this is the case, the equipment must be cleaned/disinfected and tagged before being sent to CS.

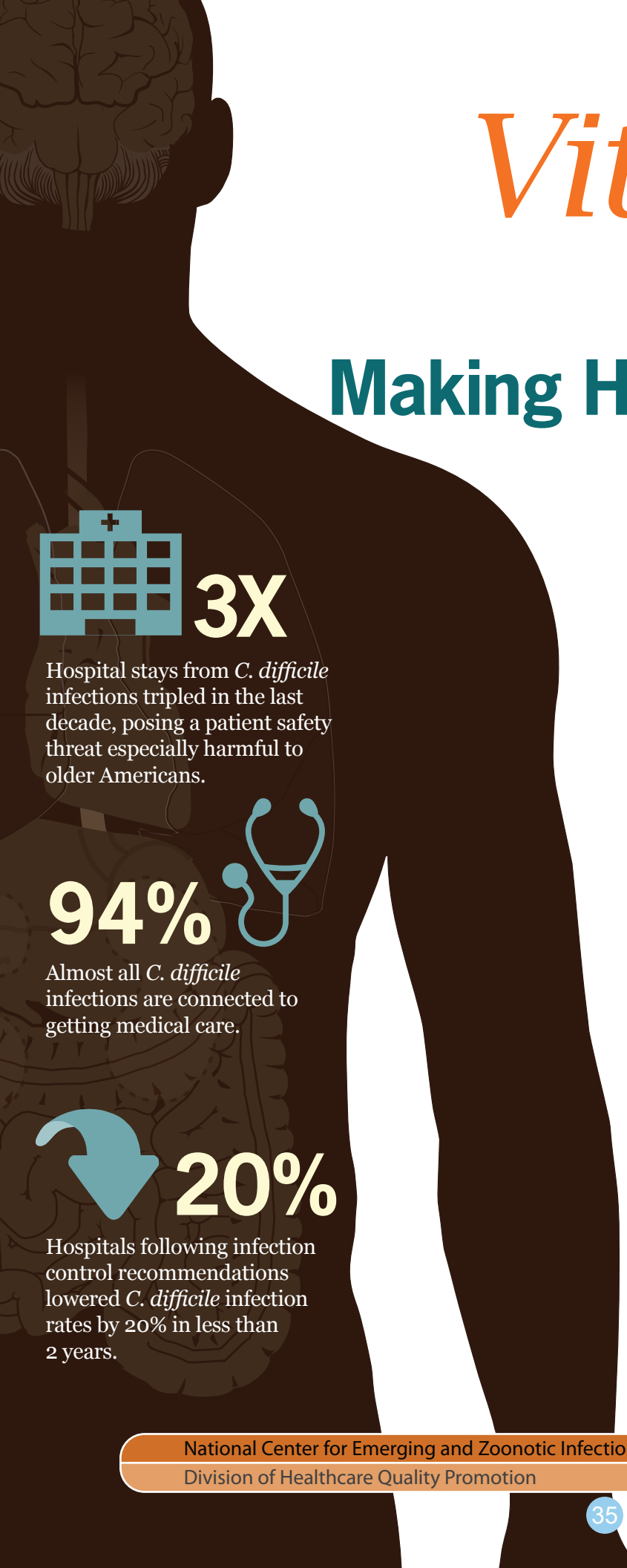
Definition of *C. difficile* Spore (MDRO) Outbreak

When a facility has an initial case of *C. difficile*, MRSA, or VRE, it is an outbreak by definition. However, the common definition of an outbreak is: several (e.g. three or more healthcare-associated infection (HAI) cases of MDRO which are epidemiologically associated by person, time or place, or a substantial increase in the number of cases in a facility. Each healthcare facility must decide the criteria to define an outbreak.

CDC Vitalsigns™
March 2012

Making Health Care Safer

Stopping *C. difficile* infections



3X

Hospital stays from *C. difficile* infections tripled in the last decade, posing a patient safety threat especially harmful to older Americans.

94%

Almost all *C. difficile* infections are connected to getting medical care.

20%

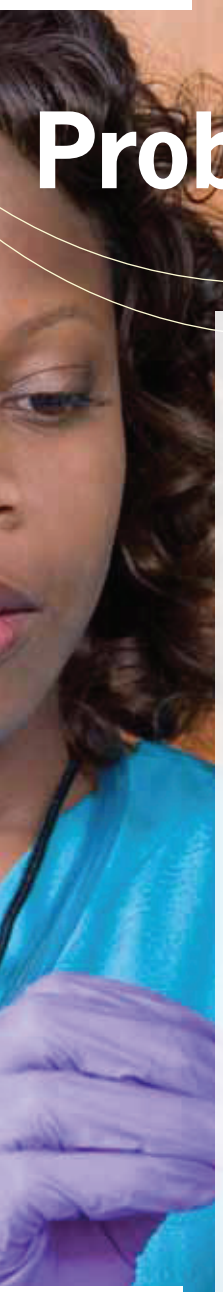
Hospitals following infection control recommendations lowered *C. difficile* infection rates by 20% in less than 2 years.

People getting medical care can catch serious infections called health care-associated infections (HAIs). While most types of HAIs are declining, one – caused by the germ *C. difficile** – remains at historically high levels. *C. difficile* causes diarrhea linked to 14,000 American deaths each year. Those most at risk are people, especially older adults, who take antibiotics and also get medical care. When a person takes antibiotics, good germs that protect against infection are destroyed for several months. During this time, patients can get sick from *C. difficile* picked up from contaminated surfaces or spread from a health care provider's hands. About 25% of *C. difficile* infections first show symptoms in hospital patients; 75% first show in nursing home patients or in people recently cared for in doctors' offices and clinics. *C. difficile* infections cost at least $1 billion in extra health care costs annually.

**Clostridium difficile* (klah-STRID-ee-um DIFF-i-seel)

www http://www.cdc.gov/vitalsigns

National Center for Emerging and Zoonotic Infectious Diseases
Division of Healthcare Quality Promotion



Problem

C. difficile infections are at an all-time high.

C. difficile causes many Americans to become sick or die.

- ◇ *C. difficile* infections are linked to 14,000 deaths in the US each year.
- ◇ Deaths related to *C. difficile* increased 400% between 2000 and 2007, due in part to a stronger germ strain.
- ◇ Most *C. difficile* infections are connected with receiving medical care.
- ◇ Almost half of infections occur in people younger than 65, but more than 90% of deaths occur in people 65 and older.
- ◇ Infection risk generally increases with age; children are at lower risk.
- ◇ About 25% of *C. difficile* infections first show symptoms in hospital patients; 75% first show in nursing home patients or in people recently cared for in doctors' offices and clinics.

C. difficile germs move with patients from one health care facility to another, infecting other patients.

- ◇ Half of all hospital patients with *C. difficile* infections have the infection when admitted and may spread it within the facility.
- ◇ The most dangerous source of spread to others is patients with diarrhea.
- ◇ Unnecessary antibiotic use in patients at one facility may increase the spread of *C. difficile* in another facility when patients transfer.
- ◇ When a patient transfers, health care providers are not always told that the patient has or recently had a *C. difficile* infection, so they may not take the right actions to prevent spread.

C. difficile infections can be prevented.

- ◇ Early results from hospital prevention projects show 20% fewer *C. difficile* infections in less than 2 years with infection prevention and control measures.
- ◇ England decreased *C. difficile* infection rates in hospitals by more than half in 3 years by using infection control recommendations and more careful antibiotic use.

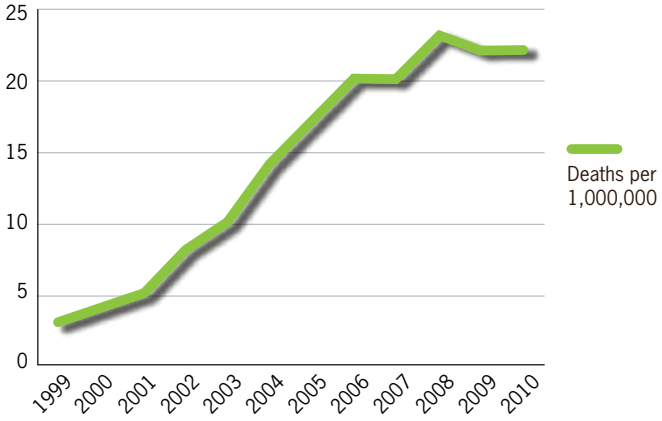
Prevention

For Clinicians: 6 Steps to Prevention

1. Prescribe and use antibiotics carefully. About 50% of all antibiotics given are not needed, unnecessarily raising the risk of *C. difficile* infections.
2. Test for *C. difficile* when patients have diarrhea while on antibiotics or within several months of taking them.
3. Isolate patients with *C. difficile* immediately.
4. Wear gloves and gowns when treating patients with *C. difficile*, even during short visits. Hand sanitizer does not kill *C. difficile*, and hand washing may not be sufficient.
5. Clean room surfaces with bleach or another EPA-approved, spore-killing disinfectant after a patient with *C. difficile* has been treated there.
6. When a patient transfers, notify the new facility if the patient has a *C. difficile* infection.

SOURCE: CDC, 2012

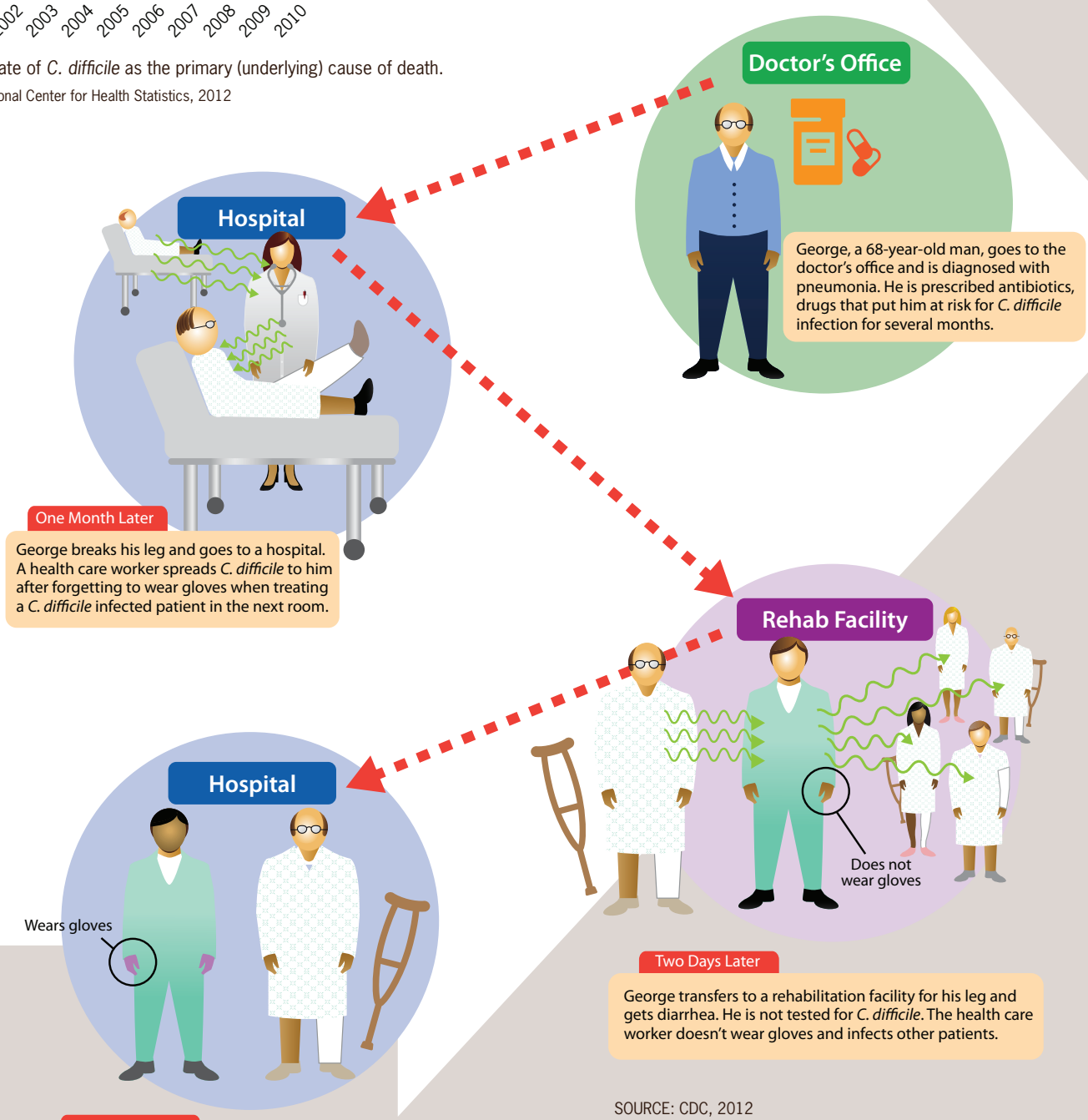
Deaths caused by *C. difficile* infections*



*Age-adjusted rate of *C. difficile* as the primary (underlying) cause of death.

SOURCE: CDC National Center for Health Statistics, 2012

How *C. difficile* Spreads.



SOURCE: CDC, 2012

What Can Be Done

Federal government is

◇ Tracking and reporting national progress toward preventing *C. difficile* infections in many types of health care facilities. These programs help track the size of the problem, antibiotics used, and people at risk.

◇ Promoting *C. difficile* prevention programs and providing gold-standard patient safety recommendations (see http://www.cdc.gov/HAI/organisms/cdiff/Cdiff_infect.html).

◇ Providing prevention expertise, as well as outbreak and laboratory support to health departments and facilities.

States and communities can

◇ Encourage health care facilities to track and share data using CDC's National Healthcare Safety Network.

◇ Develop regional *C. difficile* prevention projects with many types of facilities.

◇ Help health care facilities in their prevention efforts.

◇ Provide a standardized form for facilities to use during patient transfers, especially between hospitals and nursing homes.

Patients can

◇ Take antibiotics only as prescribed by your doctor. Antibiotics can be lifesaving medicines.

◇ Tell your doctor if you have been on antibiotics and get diarrhea within a few months.

◇ Wash your hands after using the bathroom.

◇ Try to use a separate bathroom if you have diarrhea, or be sure the bathroom is cleaned well if someone with diarrhea has used it.

Health care facility administrators can

◇ Support better testing, tracking, and reporting of infections and prevention efforts.

◇ Make sure cleaning staff follows CDC recommendations, using an EPA-approved, spore-killing disinfectant in rooms where *C. difficile* patients are treated.

◇ Notify other health care facilities about infectious diseases when patients transfer, especially between hospitals and nursing homes.

◇ Participate in a regional *C. difficile* prevention effort.

Doctors and nurses can

◇ Prescribe antibiotics carefully (see http://www.cdc.gov/getsmart/specific-groups/hcp/index.html). Once culture results are available, check whether the prescribed antibiotics are correct and necessary.

◇ Order a *C. difficile* test (preferably a nucleic acid test) if the patient has had 3 or more unformed stools within 24 hours.

◇ Be aware of infection rates in your facility or practice, and follow infection control recommendations with every patient. This includes isolating patients who test positive for *C. difficile* infection and wearing gloves and gowns to treat them.

www http://www.cdc.gov/vitalsigns

For more information, please contact
Telephone: 1-800-CDC-INFO (232-4636)
***TTY*: 1-888-232-6348**
E-mail: cdcinfo@cdc.gov
Web: www.cdc.gov
Centers for Disease Control and Prevention
1600 Clifton Road NE, Atlanta, GA 30333
Publication date: 3/6/2012

PERISEPT
Sporicidal Disinfectant Cleaner

Areas of Use

GENERAL USE SITES:

This product is designed specifically as a general (non-abrasive) cleaner and disinfectant for use in:

Animal Life Science Laboratories
Athlete/Recreational Facilities
Cruise Ships
Dental Offices
Examination Rooms
Food Service Establishments(Restaurants) (Commercial Kitchens)
Hospitals
ICU Areas
Locker Rooms
Lodging Establishments
Manufacturing Facilities
Nursing Homes
Office Building
Operating Rooms
Patient Rooms
Pet Shops
Public Restrooms
Retail Businesses
Schools
Shower Rooms
Transportation Terminals
Veterinary Clinics

MEDICAL USE SITES:

(Assisted Living or Full Care) Nursing Homes
(bedside) commodes
(crash) (emergency) carts
(exam or examination) tables
(external) (surfaces of) ultrasound transducers (and/or probes)
(hard, nonporous) edges of privacy curtains
(hospital or patient) bed(s) (springs) (railings) (frames) (linings)
(inner) (inside of) drawers
(Mayo) (instrument) stands
(Medical) (Physician's) (Doctor's) offices
(Medical) Clinics
Ambulances or (Emergency Medical) Transport Vehicles
Ambulatory Care Centers
Ambulatory Surgical Centers(ASC)
anesthesia machines
Anesthesia Rooms or Areas
apheresis machines
autoclaves
bathroom doorknob
bed rails
bedpans
bedside tables
blood pressure cuffs
cabinet handles
call boxes
carts
CAT Lab(oratories)
CAT or Computerized Axial Tomography equipment
cellular phones
Central Service Areas
Central Supply Rooms (Areas)
chairs
charging stations
closet handles
coated mattresses
coated pillows
computer mouse

MEDICAL USE SITES(cont.):

computer peripherals
computer screens
computer tables
cords
counters
Critical Care Units (CCUs)
desktops
diagnostic equipment
Dialysis Clinics (Facilities)
dialysis machines
docking stations
Doctor's Offices
Donation Centers (blood) (plasma) (semen) (milk) (apheresis)
Emergency Rooms (ERs)
environmental surfaces
Examination Rooms or Areas
exterior of pipes
exterior surfaces of air vents or air vent exteriors
external surfaces of (medical) equipment or (medical) equipment surfaces
Eye Surgical Centers
footboards
glucometers
Glucometers
gurneys
handheld (electronic) devices
hard, nonporous (environmental)hospital or medical surfaces
Headboards
Healthcare Settings or Facilities
high touch surfaces
Hospices
Hospitals
Intensive Care Units or ICU(s) (areas)
Isolation Areas
isolettes
IV (stands) (pumps) (poles)
keyboards
Laboratories
laptops
Laundry Rooms
Long Term Care Facilities
loupes
mammography equipment
Medical Facilities
medication carts
mobile devices
mobile electronic equipment
mobile workstations
mouse pads
MRI or Magnetic Resonance Imaging equipment
nurse-call (devices) (buttons) (and cords)
Nursing Homes
Nursing or Nurses' Stations
operating room tables and lights
Operating Rooms (ORs)
operatory light switches
Ophthalmic Offices
or Areas
Orthopedics
Out-Patient (Surgical Centers (OPSC)) (Clinics) (Facilities)
overbed tables
paddles
pagers
patient chairs
patient monitoring equipment

MEDICAL USE SITES(cont.):

patient support and delivery equipment
Pharmacies
phlebotomy trays
phone cradle
Physical therapy (PT) equipment surfaces
Physical Therapy Rooms or Areas Patient Areas
Physicians' Offices
plastic mattress covers
power cords
Psychiatric Facilities
Public (Care) Areas
pulse oximeters
PVC tubing
Radiology or X-Ray Rooms
reception (counter) (desks) (areas)
Recovery Rooms
Rehabilitation Centers
remote controls
respirators
Respiratory Centers
respiratory therapy equipment
Respiratory Therapy Rooms or Areas
Restrooms
scales
sequential compression devices
shower fixtures
side rails
slit lamps
spine backboards
stethoscopes
stools
stretchers
support bars
Surgery Rooms
tablet PCs
toilet handholds
traction devices
Waiting Rooms or Waiting Areas
walls (around toilet) (in patient rooms)
wash basins
wheelchairs
x-ray equipment

MATERIAL COMPATABILITY:

finished floors
Aluminum
baked enamel surfaces
brass
chrome
glass
glazed ceramic tile
glazed porcelain
laminated surfaces
plastic and painted surfaces
plastic surfaces
polished nickel finish
shower stall
stainless steel
vinyl

Sporicidal Disinfectants and Cleaners

Competitive Analysis

SPECIFICATIONS	PERISEPT™	Ultra Clorox Germicidal Bleach	OxyCide™
Available Sizes:	2 Liters (2/cs)	96 oz. (6/cs) 180 oz. (3/cs)	96 oz. (4/cs) 1/2.5/5-Gallon
Kill Times for *Clostridium difficile:*	**2 minutes**	**10 minutes**	**3 minutes**
ESKAPE Pathogens			
Enterococcus faecalis (VRE)	2 minutes	5 minutes	n/a
Staphylococcus aureus (MRSA)	2 minutes	5 minutes	3 minutes
Klebsiella pneumoniae	2 minutes	n/a	3 minutes
Acinetobacter baumanii	2 minutes	5 minutes	3 minutes
Pseudomonas aeruginosa	2 minutes	n/a	3 minutes
Hepatitis B	5 minutes	5 minutes	5 minutes
Influenza A (H1N1)	2 minutes	5 minutes	3 minutes
Total Kill Claims	**45**	**42**	**33**
Product Formulation (%s)	Hydrogen Peroxide 27.3 Peroxyacetic Acid 5.9	Sodium Hypochlorite 6.15	Hydrogen Peroxide 27.5 Peroxyacetic Acid 5.8 Acetic Acid 8 Other 66.7
HMIS-Use Dilution			
Health Hazards	1	n/a	1
Flammability	0	n/a	0
Physical Hazards	0	n/a	0
PPE	-	n/a	B
Shelf Life	**1 year**	**6 months**	**n/a**
Competitive Analysis	• Fastest RTU *C. diff* kill claim • First Dilution System Process on the market • More cost effective than RTU products on the market • Wall-mounted and portable dispenser	• Longer (10-minute) kill claim against *C. diff* • Bleach-based products damage hard-surfaces; carpet; uniforms; and LCD monitors • Requires pre-cleaning & rinse – requires additional labor • Leaves behind salt residue/ film	• Concentrated product considered HAZMAT. Potential shipping issues. • No sanitizer claims • EPA registered as one-step cleaner disinfectant (must pre-clean surface for sporicidal applications) must remove gross contamination. • Large cumbersome dilution system • No rinse required. Wipe dry or air dry. Product is toxic to birds, fish, and aquatic invertebrates.

* Based on SDS information and HMIS Rating Guide

NOTES

PERISEPT

Concentrate

ITEM#	DESCRIPTION	SIZE	PACK
48027	Perisept Sporicidal Disinfectant Cleaner	2 Liters	2/cs

Dispensing Solutions

ITEM#	DESCRIPTION
23200	Wall Mount–Four Station Dispenser, *includes water supply hose*
23201	Wall Mount–Single Station Dispenser, *Bottle fill**
23202	Wall Mount–Single Station Dispenser, *Bucket fill**
23203	Portable Dispenser*
23204	Portable Spray/Foaming Dispenser – *Basic Model**
23205	Portable Spray/Foaming Dispenser – *Premium Model,* includes 4 ft. extension hose & foamer*
23206	Navigator Portable Dispenser
23209	Premium Grade Water Supply Hose, 6 ft., Black

**Requires Water Supply Hose*

Manufactured for:

TRIPLE S

BILLERICA, MA 01862

800-323-2251 www.triple-s.com