

# PROCESS NPD® ONE-STEP GERMICIDAL DETERGENT TECHNICAL DATA

# **GENERAL DESCRIPTION**

Process NPD One-Step Germicidal Detergent is a phosphate-free one-step cleaner, disinfectant, deodorizer liquid concentrate consisting of four quaternary ammonium compound chains formulated with a compatible biodegradable detergent system. The 1/2 fl.oz/gal use-dilution (0.4% V/V) of Process NPD detergent delivers 600 ppm active germicidal quat for broad spectrum effectiveness, when diluted with hard water up to 400 ppm hardness (AOAC hard water) and in the presence of 5% blood serum.

Process NPD detergent is intended for use on washable hard, non-porous environmental surfaces such as floors, walls, counters, tools, carts and other equipment in pharmaceutical and cosmetic facilities and in food processing, preparation and service facilities, in animal husbandry, poultry and feed processing facilities, veterinary clinics, animal research facilities, and in other indoor areas where infectious Contamination Prevention is a necessity. Process NPD detergent does not contain any dye or perfume that could interfere with critical research studies or manufacturing processes. Process NPD detergent may be used in fogging applications as an adjunct to regular cleaning and disinfecting.

Use the use-dilution for cleaning and disinfecting glass, chrome, galvanized metal, stainless steel, porcelain, tile, washable painted or varnished surfaces, concrete, plastics, as well as resilient vinyl, linoleum, asphalt, rubber or terrazzo and other combination type floors.

FEATURES	BENEFITS
FEATURES	DENETIIS

Broad-spectrum germicidal activity including HIV-1 (AIDS) virus and Canine Parvovirus	Assurance of microbial effectiveness
No dyes or perfumes	Less chance of toxic reactions or interference
Advanced detergent system	Provides superior cleaning ability as you disinfectant
Hard water effective (400 ppm CaCO <sub>3</sub> )	Disinfection assured in most tap waters
5% Serum effective	Proven effective in simulated use conditions
High concentration	Cost effective, reduced package disposal, less storage space needed
One-Stroke system	Accurate and controlled use dilution of product

## PHYSICAL PROPERTIES

Form	Straw colored liquid
Specific gravity (25°C [77°F])	1.03 typical
pH (undiluted)	10.2 typical
pH (0.4% V/ <sub>V</sub> )	10.7 typical

# **GERMICIDAL PROPERTIES**

The official test for determining the germicidal efficacy of a one-step cleaner detergent is the Use Dilution Method as stated in the *AOAC Methods of Analysis*. Process NPD detergent diluted 1/2 oz/gal (0.4% V/<sub>V</sub>) in 400 ppm (as CaCO<sub>3</sub>) hard water is effective against the following microorganisms in the presence of 5% blood serum, in 10 minutes at 20°C (68°F).

Acinetobacter calcoaceticus	ATCC 19606
Bordetella avium	ATCC 35086
Bordetella bronchiseptica	ATCC 10580
Campylobacter jejuni	ATCC 29428
Candida albicans,	Clinical Isolate
Candida parapsilosis,	Clinical Isolate
Citrobacter freundii	ATCC 8090
Enterobacter aerogenes	ATCC 13048

Escherichia coli	ATCC	25922
Klebsiella pneumoniae	ATCC	13883
Listeria monocytogenes	ATCC	19111
Mycoplasma gallisepticum	ATCC	19610
Pasteurella multocida	ATCC	27853
Proteus vulgaris	ATCC	13315
Pseudomonas aeruginosa	ATCC	9027
Pseudomonas cepacia	ATCC	25609
Salmonella choleraesuis	ATCC	10708
Salmonella enteritidis	ATCC	13076
Salmonella typhimurium	ATCC	14028
Serratia marcescens	ATCC	8100
Shigella flexneri	ATCC	12022
Shigella sonnei	ATCC	25931
Staphylococcus aureus	ATCC	6538
Staphylococcus aureus	ATCC	25923
Staphylococcus aureus (MRSA), Multiply (Methicillin)-Resistant	Clinical	Isolate
Staphylococcus epidermidis	ATCC	12228
Streptococcus faecalis	ATCC	19433
Streptococcus pyogenes	ATCC	19615

Process NPD detergent is effective in three minutes on hard surfaces against P. aeruginosa, ATCC 13388, according to the AOAC Use Dilution Test when diluted with 400 ppm hard water to make a 1 oz/gal (0.8% V/V) solution, in the presence of 5% added organic soil (serum) at 20°C (68°F).

## **FUNGICIDAL PROPERTIES**

The official test for determining the fungicidal efficacy of a one-step cleaner disinfectant is the Use-Dilution Method as described in the AOAC Methods of Analysis, and modified as required by Environmental Protection Agency (EPA) regulations. Process NPD concentrate diluted 1/2 oz/gal (0.4% V/V) in 400 ppm (as CaCO<sub>2</sub>) hard water is effective against Trichophyton mentagrophytes in the presence of 5% blood serum, 10 minutes at 20°C (68°F).

#### VIRUCIDAL PROPERTIES

Process NPD detergent is effective against the following viruses according to the EPA approved virucidal assay method when diluted with 300 ppm hard water to make a 1/2 oz/gal (0.4% V/<sub>V</sub>) solution, in the presence of 5% organic soil (serum) in 10 minutes at 20-25°C (68-77°F) on hard non-porous environmental surfaces:

Canine distemper	ATCC-128
Canine parainfluenza	ATCC VR-399
Chlamydia psittici (Feline Pneumonitis)	
Feline rhinotracheitis	ATTC VR-636
Herpes simplex Types 1 and 2	
Infectious bronchitis	ATCC VR-22
Infectious laryngotracheitis	ATCC VR-783
Influenza A <sub>2</sub> (Japan-305)	
Marek's Disease	ATCC VR-2002
Mouse hepatitis	ATCC VR-764
Newcastle Disease	ATCC VR-109
Vaccinia Virus	

When tested by an EPA approved dilution method, a dried film of HIV-1 (AIDS) virus, with added 5% organic soil (serum) was completely inactivated by a 1/2 oz/gal (0.4% V/<sub>V</sub>) solution of Process NPD detergent in 400 ppm AOAC hard water in 30 seconds at 20°C (68°F). Although efficacy at 30 seconds contact time has been shown to be adequate for HIV-1, this time would not be sufficient for other organisms. Use a 10-minute contact time for all organisms.

Process NPD detergent is effective against Canine parvovirus, ATCC VR-953, Feline calicivirus, ATCC VR-782 and Infectious bursal disease (Lukert strain) according to the EPA approved virucidal assay method when diluted 2 oz/gal (1.6% V/V) in 400 ppm hard water in 5% organic soil (serum) in 10 minutes at 20-25°C (68-77°F) on hard, non-porous environmental surfaces.

## **DIRECTIONS FOR USE**

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

# Cleaning and Disinfecting Washable Hard, Non-Porous Surfaces

Always remove gross filth and heavy soil before application of the use-solution of this product. Add 1/2 fl.oz (15cc) to each premeasured gallon of water (0.4%). Always add this product (concentrate) to pre-measured water. For accurate solution preparation, use 1-stroke dispenser (one stroke delivers 1/2 oz of product).

Gently mix until the solution is uniform. Apply use-solution to the surface being disinfected with a cloth, sponge, mop, brush or coarse spray using normal cleaning methods. Allow the treated surfaces to remain wet for 10 minutes, then remove excess solution with a wrung-out applicator. Discard soiled solutions in an approved manner and replace with fresh use-solutions. This is a complete product. Do not add other chemicals. Use only as directed on label.

# Cleaning and Disinfecting Food Preparation, Processing Facilities and Equipment

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

# Animal Husbandry, Animal Research, and Poultry Facility Cleaning and Disinfecting

Remove all animals and feed from the premises, vehicles and enclosures. Remove all litter and manure from the floors, walls and surfaces of facilities transversed or occupied by animals. Empty all troughs, racks, and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of 1/2 oz. per gallon water (1:256 dilution). Apply solution with a cloth, sponge, mop, brush, coarse spray using normal cleaning methods or by fogging following cleaning. Allow surfaces to remain wet for 10 minutes. (For fogging, fog the desired area at 32 to 64 ounces of use dilution per 1000 cubic feet using equipment with an automatic timer. Do not remain in treated areas; allow at least two hours after fogging is complete before reentering fogged area. Before fogging, remove or cover any food or packaging material with waterproof coverings.) Immerse all halters, ropes, and other types of equipment used in handling and restraining animals as well as forks, shovels, and scrapers used for removing litter and manure. Ventilate buildings, vehicles, and other closed spaces. Do not house livestock or empty equipment until treatment has absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, and waterers with soap or detergent and rinse with potable water before reuse.

#### Fogging As An Adjunct To Regular Cleaning and Disinfecting

This product may be used for fogging (wet misting) as an adjunct following regular cleaning and disinfecting procedures to sanitize surfaces in research and manufacturing facilities. Thoroughly clean all surfaces. Fog the desired area at 32 to 64 ounces of use-dilution per 1000 cubic feet using equipment with an automatic timer. Do not remain in treated areas; allow at least two hours after fogging is complete before reentering fogged area. Before fogging, remove or cover any food or packaging material with waterproof coverings.

## STORAGE AND DISPOSAL

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

## Storage

Pesticide Storage: Store in a secure area away from flammable materials. If frozen, thaw and re-mix before use.

# **Disposal**

**Pesticide Disposal**: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray or mixture of rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: 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, by burning. If burned, stay out of smoke.

## **SERVICE**

#### Sales

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

#### **Technical**

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

# **PRECAUTIONS**

Information concerning human and environmental exposure may be reviewed on the Material Safety Data Sheet (MSDS) for the product. For additional information, call 1-314-535-1395.

## For further information, please contact:





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