



STERIS



PROCESS NPD DISINFECTANT CONCENTRATE



EPA REGISTERED #1043-90

- 10 MINUTES BROAD SPECTRUM KILL TESTED AND PROVE EFFECTIVE AGAINST 28 STRAINS OF GRAM POSITIVE AND GRAM NEGATIVE BACTERIA (E COLI, SALMONELLA, P. AUREGENOSA, LISTERIA, MRSA ET AL), 16 STRAINS OF VIRUSES INCLUDING (INFLUENZA A1, HIV1 ETC) AND ATHLETE'S FOOT FUNGUS.
- NON-OXIDISING FORMULA WITH DETERGENCY. NON-CORROSIVE
- SUITABLE FOR FOGGING & MISTING FOR OFFICES AS IT WILL NOT CORRODE I.T. EQUIPMENT LIKE OXIDISING CHEMISTRY
- GOOD STABILITY AND LOW TOXICITY*
- NON-STAINING FORMULA
- EFFICACY NOT AFFECTED BY ORGANIC MATTERS LIKE CHLORINE-BASED DISINFECTANT
- ECONOMICAL USAGE 1:256 (0.4%) DILUTION



* - IN DILUTED SOLUTION

^ - TESTED AGAINST 5% BLOOD SERUM

Active Ingredients	Effective Against Covid 19?	Broad Spectrum	Contact Time	Corrosiveness
Hypochlorite	YES	YES	Short	High
Hydrogen Peroxide	YES	YES	Varies	Medium
Chlorine Dioxide	YES	YES	Short	High
PROCESS NPD	YES [^]	YES	Short	Low

Active Ingredients	Toxicity NIOSH Limit (Max. limit for 15 min exposure time)	Cost Effectiveness	Suitable for fogging	Material Compatibility	Note
Hypochlorite	0.5ppm	Low	No	Corrosive to stainless steel, aluminium, brass and plastics	Becomes ineffective when organic matters are present.
Hydrogen Peroxide	75ppm	Low	Needs higher concentration which is hazardous	Corrosive to aluminium, brass, carbon steel, elastomers	Becomes highly unstable when exposed to air
Chlorine Dioxide	0.3ppm	High	No personnel can be present	Corrosive to stainless steel, aluminium, brass	Toxic fumes produced.
PROCESS NPD	Not established. I.e.* Unlikely to cause toxicity when exposed.	High	Yes	Compatible to most materials. Slight discoloration.	Stable Open bottle chemistry.



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BACTERICIDAL 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/v) in 400 ppm (as CaCO₃) 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 CaCO₃) 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/v) 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	ATCC VR-636
Herpes simplex Types 1 and 2	
Infectious bronchitis	ATCC VR-22
Infectious laryngotracheitis	ATCC VR-783
Influenza A2 (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/v) 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.