evaclean™

NEXT GENERATION INFECTION CONTROL SOLUTIONS

Technical & Efficacy Information

www.evaclean.com

HOSPITALS, neo-natal units, ICU, operating rooms, hospital drain pipes, nursing homes, dental facilities, laboratories

RESTAURANTS, kitchens, vending machines, breweries, beverage and food processing plants, egg processing plants, milk processing facilities, dairy farms

SCHOOLS, child care centers, daycares, licensed care facilities

VETERINARY CLINICS, kennels, boarding facilities, lab animal facilities, zoos and aquariums, poultry premises, poultry housing, poultry hatcheries

OFFICE BUILDINGS, hotels, stores, shops, amusement parks, campsites, pools, spas, gyms, health clubs, restrooms, commercial laundries

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NEXT GENERATION INFECTION CONTROL SOLUTIONS

Evaclean is a complete system for daily cleaning and infection prevention.

PUR:ONE and PURTABS are composed of Sodium Dichloro Isocyanurate (NaDCC) in a fast dissolving effervescent tablet and produces far more accurate dilution than chemical dispensers.

- Release hypochlorous acid when dissolved in water
- Diluted solution is a flexible broad-spectrum disinfectant (ranging from sanitizer, hospital grade disinfectant, sporicidal and tuberculocidal)
- OSHA Bloodborne pathogen standard
- EPA K list approved product against *C.auris*
- EPA Emerging pathogen claims
- NFPA Rating
  - 0,0,0 Use Dilution

PUR·ONE

EFFERVESCENT CLEANER & DISINFECTANT TABLETS

PUR:ONE is a broad spectrum cleaner and disinfectant.

✔ **Biofilm Registration –** PUR:ONE has a registered kill claim against bacteria present in biofilm.

PURTABS™

EFFERVESCENT SANITIZING / DISINFECTION TABLETS

PURTABS is a broad-spectrum disinfectant designed to be applied with the Protexus Electrostatic Sprayer.

Cleaning/Disinfection

Enhanced Disinfection

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THE SCIENCE BEHIND NADCC

PUR:ONE EPA Reg No. 71847-7-91524
PURTABS EPA Reg No. 71847-6-91524

How NaDCC Works – How it differs from Bleach

The active agent in PUR:ONE and PURTABS is sodium dichloroisocyanurate ($C_3Cl_2N_3Na0_3$) shortened to NaDCC, the active ingredient in bleach is Sodium Hypochlorite (Na0Cl).

NaDCC is an organic chlorine donor that forms a use-solution with a mildly acidic to neutral pH of 6-7, when mixed with water. Bleach and other hypochlorites form alkaline use-solutions, with a pH in the range of 11 to 12 when diluted with water (note pH is a logarithmic scale so if you start with a pH of 13 and dilute 10:1 with water, that reduces the pH by approximately 1 depending on the water quality). If drawing the chemical reactions, it would look like this:

NaDCC	**BLEACH**
$C_3Cl_2N_3Na0_3 + H_20 \longrightarrow C_3ClHN_3Na0_4 + H0Cl$	$Na0Cl + H_20 \longrightarrow Na0H+H0Cl$

Caustic is highly corrosive and presents significant health risk through both direct and indirect contact (especially eyes and mucous membranes) and through inhalation of the dried dust from bleach. There have been numerous studies showing a link between use of bleach and occupational asthma in medical staff. NaDCC on the other hand, produces no caustic and is approved by both the Environmental Protection Agency (EPA) and the World Health Organization (WHO) as a disinfectant for potable water with no observable health effect over a lifetime of consumption. OSHA describes the health effect of caustic as ulceration of nasal passages, eye, skin, and respiratory irritation with a PEL of only 2 mg/m^3 in air. It is important to note the stoichiometric ratio (one to one) of caustic to H0Cl. For every molecule of hypochlorous acid produced, one molecule of caustic is produced. Therefore, if you want to make a stronger disinfecting solution with bleach you inevitably get more caustic.

NaDCC contains no caustic and the use diluted product causes only temporary mild eye irritation if directly impacting the eye. In this way, the product has an HMIS rating of 1/0/0 compared to 3/0/0 for bleach. Because there is no caustic produced, there is a significantly lower health risk.

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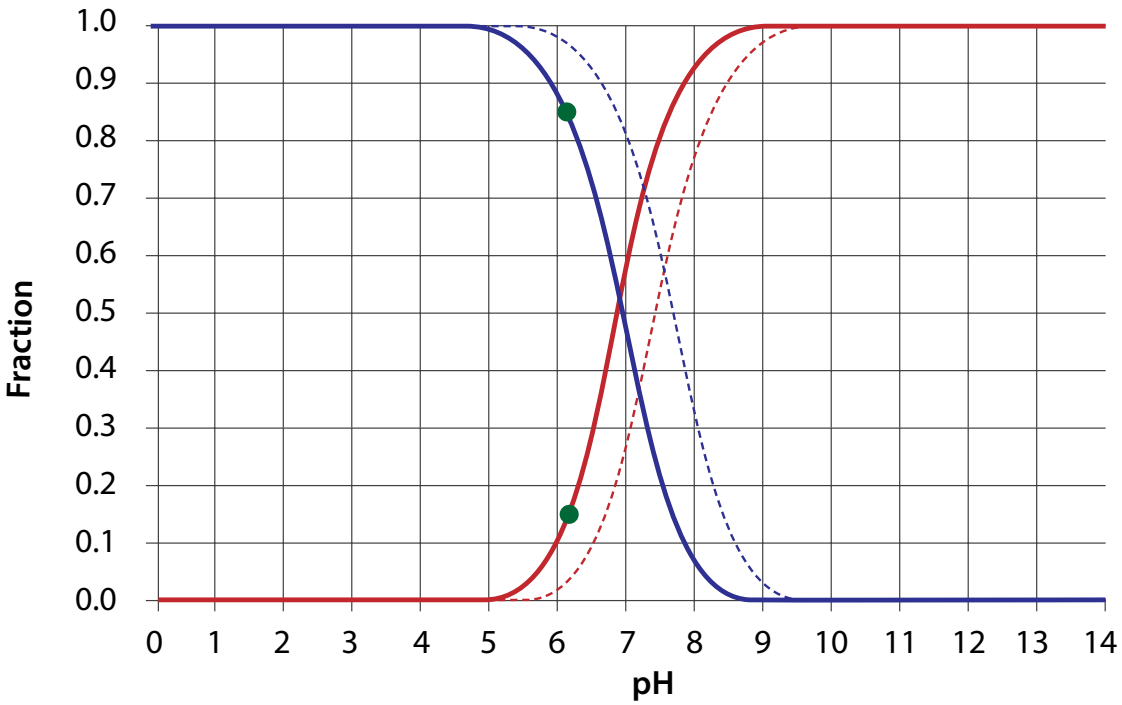
Why pH is important

The biologically active ingredient in both bleach and NaDCC is HOCl, when HOCl is in a solution, it dissociates as follows:

$HOCl \longleftrightarrow OCl^- + H^+$

*note this is a reversible reaction

Studies show that undissociated (HOCl) has four times the anti-microbial killing power compared to the dissociated hypochlorite ion (OCl-). It is believed that this is due to the fact that HOCl is very similar to the structure of H20 (water), of similar molecular size, and is electrically neutral – thus allowing it to penetrate cell membranes as easily as water. The ratio of HOCl to OCl- in a solution is dictated by the solution pH. The more acidic a solution the more HOCl is present, and the more alkaline a solution, the more OCl- is present. The graph below demonstrates the dissociation constant:



As can be seen from the graph, a solution of NaDCC with a pH of 6 to 7 has 80 to 90 percent of the active disinfectant in the form of HOCl, a solution of bleach with a pH of 11 to 12 has less than 10 percent of the active disinfectant than bleach

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Stability in Solution

When NaDCC is mixed with water, it yields hypochlorus acid HOCL and sodium monochloroisocyanurate in a slightly acidic use-solution. These two ingredients remain in a constant 50 - 50 ratio in the use-solution, so that as part of the free chlorine is used up (due to reaction with bacteria, organic material, etc), part of the combined chlorine in the NaOCl is freed to restore the 50 - 50 ratio and continue the disinfecting process. THIS IS AN IMPORTANT CHARACTERISTIC of NaDCC to note, because unlike bleach and all other hypochlorites, this product possesses a reserve killing power that continues to be made available even after contact with organic soils. Bleach immediately releases all of the HOCL and has no residual to address organic soil rapidly becoming deactivated on contact with organic soils.

Sodium hypochlorite solutions are inherently unstable. When open to the air, HOCl evaporates at a high rate from the solution, rapidly reducing the concentration of free chlorine. NaDCC in solution has a far lower loss rate. This breakdown of HOCL also happens when bleach comes in contact with acids, sunlight, certain metals and gasses. Because it is unstable, when used for disinfection, diluted bleach should be prepared fresh daily. Because NaDCC is inherently more stable than bleach solutions, NaDCC solutions in a sealed container have a 3-day shelf life. To improve the stability of bleach solutions, a number of manufacturers who produce ready to use wipes and dilute bleach liquids have increased the pH through addition of additional caustic. Increasing the pH may make their product more stable but it reduces the ratio of HOCl further reducing biocidal efficacy while increasing the corrosive nature of the product.

Because of NaDCC's inherent stability and greater proportions of HOCl, lower concentrations are required for effective kill times. This minimizes worker and patient exposures. The longer shelf life reduces waste and further reduces costs. Testing on metal substrates demonstrates that NaDCC is about 50% less corrosive then bleach, and does not produce any damage on vinyl and plastics.

EPA Regulations

The US EPA has registered a number of bleach based products as sporicidal disinfectants for use on hard surfaces and one NaDCC based product. The list of registered products can be found at: *https://www.epa.gov/sites/production/files/2018-01/documents/2018.10.01.listk_.pdf*. Review of the list shows the following registered claims for product efficacy against *Clostridium difficile* in the presence of soil load:

PRODUCT	CONCENTRATION	REQUIRED CONTACT TIME
NaDCC	2153 ppm	10 min
Bleach	5500 ppm	10 min
NaDCC	4306 ppm	4 min
Bleach	9000	5 min

As can be seen from the EPA registration documents NaDCC is more effective than bleach at lower concentrations. Lower concentrations of disinfectant significantly reduce potential health hazards for personnel and collateral damage to equipment, in addition to making products more cost effective.

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ENHANCED DISINFECTION

PURTABS is a broad-spectrum disinfectant designed to be applied with the Protexus Electrostatic Sprayer.

Third Party Air Sampling of PURTABS Applied with the Protexus PX200ES

On March 17, 2017, and Industrial Hygienist from American Environmental Consultants, Inc. (AEC) collected personal (and area) air samples. These samples were analyzed for Chlorine, at the request of EarthSafe Chemical Alternatives, LLC, as part of a worker exposure assessment during application of PURTABS using an electrostatic spraying application (Protexus Electrostatic Sprayer) in a variety of client settings (hospitals, kitchens, etc.). Samples of the Chlorine were collected according to National Institute of Occupational Safety and Health (NIOSH) Analytical Modified Method 6011. The collected samples were submitted to an experienced and accredited laboratory (SGS/Galson Laboratories).

Results

The following table presents the results of the personal sampling in mg/m3 and ppm compared to OSHA PEL ceiling values and the ACGIH TLV's for STEL's and 8-hour TWA's.

SAMPLE NUMBER	VOLUME (LITERS)	SAMPLE TYPE	SAMPLE RESULT	OSHA PEL CEILING (PPM)	ACGIH TLV (PPM)
17-0068320	15	STEL	<0.1	1	1
17-0068321	90	Personal	<0.02	1	0.5
17-0068319	15	STEL	<0.1	1	1
17-0068316	90	Personal	<0.02	1	0.5
17-0068317	30	Area/STEL	<0.06	1	1
17-0068318	15	STEL	<0.1	1	1
17-0068322	90	Personal	<0.02	1	0.5
17-0068314	0	Blank	NA	NA	NA
17-0068315	0	Blank	NA	NA	NA

Based on laboratory results, all Chlorine concentrations were below the OSHA Permissible Exposure Limits (PEL) and Threshold Limit Values (TLV), established by the American Conference of Governmental Industrial Hygienists (ACGIH).

Protexus Electrostatic Sprayers & Nozzles

For healthcare use, the Protexus Electrostatic Sprayers have been equipped with standard nozzles having one output of 60 microns. Usage guides and standard operating procedures (SOPs) developed for healthcare processes have been to disinfect with a 60-micron size nozzle to ensure simplified training, proper usage in any application -sanitizing or disinfecting – therefore providing repeatable results.

Users will continue to have the option for additional nozzle setting configuration with the availability of a tri-nozzle set at 60, 80, and 100 microns.

Recommended Personal Protective Equipment (PPE)

It is recommended to wear chemical-resistant gloves, safety glasses, and dust mask when diluting tablets.

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PUR·ONE
EFFERVESCENT CLEANER & DISINFECTANT TABLETS

PURTABS™
EFFERVESCENT SANITIZING / DISINFECTION TABLETS

Physical & Chemical Specifications

STABILITY DATA

PUR:ONE and PURTABS solutions can be used for up to 3 days if stored in a closed container such as a spray botle or buddy bottle at room temperature out of direct sunlight. Prepare a fresh solution twice weekly when using closed containers.

PHYSICAL AND CHEMICAL SPECIFICATIONS

Active ingredient: Sodium dichloro-s-triazinetrione	48.21%
Working pH	6.5 +/ -0.5
Color	Clear
Odor	Slight Chlorine
HMIS Health Rating Tablet	0
HMIS Health Rating In-Use	0

MATERIAL SUBSTRATE COMPATIBLITY

Sodium dichloro-s-triazinetrione tablets dissolved in water produce a solution of active chlorine. The following chart shows the compatability of a variety of materials with solutions up to 2,000 mg/L of active chlorine.

Plastics	Compatibility
ABS	A
CPVC	A
Hytrel®	A
HDPE	A
LDPE	A
Noryl®	A
Polycarbonate	A
Polypropylene	A
PPS	A
PTFE	A
PVC	A
PVDF	A

Elastomers	Compatibility
Nitrile (Buna N)	A
EPDM	A
Hypalon®	A
Kel-F®	A
Santoprene	A
Silicone	B
Tygon®	A
Viton®	A

Metals	Compatibility
SS 304	A
SS 316	A
Aluminum	B
Brass	B
Bronze	B
Carbon Steel	C
Cast Iron	C
Hasteloy C®	A
Titanium	A
Nonmetals	**Compatibility**
Carbon graphite	A
Ceramic A 1203	A
Ceramic magnet	A

Explanation of Ratings – Chemical Effect

A = Excellent.

B = Good – Minor effect, slight corrosion or discoloration.

C = Fair – Moderate effect, OK for short-term use.
Not recommended for continuous use. Some pitting may occur.

D = Severe effect, not recommended for any use.

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NEXT GENERATION INFECTION CONTROL SOLUTIONS

Dilution Guidelines

PUR·ONE
EFFERVESCENT CLEANER & DISINFECTANT TABLETS

PUR:ONE DILUTIONS*

TABLET SIZE	3.34 G		13.1 G	
Solution ppm (mg/L) Available Chlorine	Tablets	Quarts of Water	Tablets	Gallons of Water
100	1	10	1	10
538	1	2	1	2
1076	1	1	1	1
2153	2	1	2	1
4306	4	1	4	1
5382	5	1	5	1

NOTE: PUR:ONE is <u>not</u> for use with Protexus Electrostatic Sprayers.

PURTABS™
EFFERVESCENT SANITIZING / DISINFECTION TABLETS

PURTABS DILUTIONS

TABLET SIZE	.3G		3.34 G		13.1 G	
Solution ppm (mg/L) Available Chlorine	Tablets	Quarts of Water	Tablets	Quarts of Water	Tablets	Gallons of Water
100	1	1	1	10	1	10
538	6	1	1	2	1	2
1076	11	1	1	1	1	1
2153	21	1	2	1	2	1
4306	42	1	4	1	4	1
5382	53	1	5	1	5	1

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PUR·ONE
EFFERVESCENT CLEANER & DISINFECTANT TABLETS

PUR:ONE Usage Guidelines

NOTE: PUR:ONE is <u>not</u> for use with Protexus Electrostatic Sprayers.

PATHOGEN	MINIMUM DOSE REQUIRED (PPM)	MINIMUM CONTACT TIME REQUIRED (MINUTES)
SANITIZER CLAIMS		
Staphylococcus aureus (ATCC 6538)	100 ppm	1 minute
Salmonella enterica (ATCC 6539)	100 ppm	1 minute
DISINFECTION CLAIMS - BACTERIA		
Staphylococcus aureus (ATCC 6538)	538 ppm	10 minutes
	4306 ppm	4 minutes
Staphylococcus aureus - methicillin resistant (MRSA) & glycopeptide-resistant (GRSA) (ATCC 33592)	1076 ppm	10 minutes
	4306 ppm	4 minutes
Staphylococcus epidermidis (ATCC 51624)	1076 ppm	10 minutes
Salmonella enterica (ATCC 10708)	538 ppm	10 minutes
	4306 ppm	4 minutes
Pseudomonas aeruginosa (ATCC 15442)	538 ppm	10 minutes
	4306 ppm	4 minutes
Streptococcus pneumoniae (ATCC 6305)	4306 ppm	4 minutes
Escherichia coli O157:H7 (ATCC 35150)	1076 ppm	10 minutes
Acinetobacter baumannii (ATCC BAA-1709)	4306 ppm	4 minutes
Vancomycin resistant *Enterococcus faecalis* (ATCC 51575)	1076 ppm	10 minutes
	4306 ppm	4 minutes
Carbapenem resistant *Klebsiella pneumoniae* (ATCC BAA-1705)	4306 ppm	4 minutes
Klebsiella pneumoniae (ATCC 4352)	1076 ppm	10 minutes
BIOFILM CLAIMS		
Pseudomonas aeruginosa (in a biofilm)‡ (ATCC 15442)	4306 ppm	4 minutes
Staphylococcus aureus (in a biofilm)‡ (ATCC 6538)	4306 ppm	4 minutes
VIRUCIDAL CLAIMS		
Respiratory syncytial virus† (ATCC VR-26)	538 ppm	10 minutes
Rhinovirus Type 14 † (ATCC VR-284)	1076 ppm	10 minutes
Influenza Virus H1N1† (ATCC VR-99)	538 ppm	10 minutes
Human Immunodeficiency Virus Type 1 (HIV-1) † (Strain IIIB)	1076 ppm	10 minutes
	4306 ppm	1 minute
Hepatitis A virus† (Strain HM175/18f)	1076 ppm	10 minutes
	4306 ppm	1 minute
Hepatitis B virus† (Duck Hepatitis B (DHBV)	1076 ppm	10 minutes
	4306 ppm	1 minute
Hepatitis C virus† (Bovine Viral Diarrhea Virus Strain NADL - surrogate for Hepatitis C virus)	4306 ppm	1 minute
Avian influenza A (H5N1)† (CDC #2006719965)	4306 ppm	1 minute
Norovirus† (ATCC VR-782)	2153 ppm	1 minute
Poliovirus Type 1† (ATCC VR-1000)	1076 ppm	10 minutes
Coxsackievirus B3† (ATCC VR- 30)	4306 ppm	1 minute
Herpes simplex virus type 1† (ATCC VR-733)	1076 ppm	10 minutes

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PUR·ONE
EFFERVESCENT CLEANER & DISINFECTANT TABLETS

PUR:ONE Usage Guidelines cont.

NOTE: PUR:ONE is <u>not</u> for use with Protexus Electrostatic Sprayers.

PATHOGEN	MINIMUM DOSE REQUIRED (PPM)	MINIMUM CONTACT TIME REQUIRED (MINUTES)
FUNGICIDAL/YEASTICIDAL CLAIMS		
Aspergillus fumigatus (ATCC 36607)	4306 ppm	1 minute
Trichophyton interdigitale (ATCC 9533)	1076 ppm	10 minutes
CLOSTRIDIUM DIFFICILE CLAIMS		
Clostridium difficile spores (ATCC 43598)	2153 ppm	10 minutes
	4306 ppm	4 minutes
MYCOBACTERICIDAL CLAIMS		
Mycobacterium bovis (TB) (ATCC 35743)	5382 ppm	4 minutes
ANIMAL PATHOGENS[1]		
Canine Parvovirus† (ATCC VR-2017)	1076 ppm	10 minutes
Herpes simplex virus type 1¥† (ATCC VR-733)	1076 ppm	10 minutes
Newcastle Disease Virus† (ATCC VR-180)	1076 ppm	10 minutes
Pseudorabies† (ATCC VR-135)	1076 ppm	10 minutes
Feline Calicivirus† (ATCC VR-782)	1076 ppm 2153 ppm	10 minutes 1 minute
Canine Distemper virus† (ATCC VR-128)	1076 ppm	10 minutes
Infectious Canine hepatitis ¥† (ATCC VR 293)	1076 ppm	10 minutes
Teschen/Talfan disease ¥† (ATCC VR-669)	1076 ppm	10 minutes
Avian influenza virus H5N1 ¥† (ATCC VR-1608)	4306 ppm	1 minute
Porcine parvovirus ¥† (ATCC VR-742)	1076 ppm	10 minutes
Runting & Stunting virus (tenosynovitis)¥† (ATCC VR- 2449) (ATCC VR-21)	1076 ppm	10 minutes
Actinobacillus pleuropneumoniae¥† (NCTC 12370) (ATCC 27088)	1076 ppm	10 minutes
Bordetella bronchiseptica (rhinitis)¥† (ATCC 19)	1076 ppm	10 minutes
Brachyspira hyodysenteriae (Treponema/Serpulina) (swine dysentery)¥† (ATCC 27164)	1076 ppm	10 minutes
Gumboro disease ¥† (ATCC VR-478)	1076 ppm	10 minutes
Streptococcus uberis ¥† (ATCC 9927)	1076 ppm	10 minutes
Transmissible gastroenteritis (TGE)¥† (ATCC VR-743)	1076 ppm	30 minutes
Swine Vesicular disease¥† (ATCC VR-158)	1076 ppm	30 minutes
African swine fever¥† (ASFV)	1076 ppm	30 minutes
Hog cholera/Classical swine fever¥† (CSFV)	1076 ppm	30 minutes
Avipox (fowl pox)¥† (FPV)	1076 ppm	30 minutes
Respiratory syncytial virus¥† (ATCC VR-26)	538 ppm	10 minutes
Bovine Viral Diarrhea Virus¥† (Strain NADL)	4306 ppm	1 minute
Porcine epidemic diarrhea virus¥† (Strain Colorado)	1076 ppm	10 minutes

†Note: This use has not been approved by the California DPR
¥Note: These organisms not approved by the state of California

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PURTABS™

EFFERVESCENT SANITIZING / DISINFECTION TABLETS

PURTABS Usage Guidelines

PATHOGEN	MINIMUM DOSE REQUIRED (PPM)	MINIMUM CONTACT TIME REQUIRED (MINUTES)
Food Contact Sanitizer Claims		
Staphylococcus aureus (ATCC 6538)	100 ppm	1 minute
Salmonella enterica (ATCC 6539)	100 ppm	1 minute
Disinfection Claims - bacteria		
Staphylococcus aureus (ATCC 6538)	a) 1076 ppm b) 4306 ppm	a) 10 minutes b) 4 minutes
Staphylococcus aureus - methicillin resistant (MRSA) & glycopeptide-resistant (GRSA) (ATCC 33592)	a) 1076 ppm b) 4306 ppm	a) 10 minutes b) 4 minutes
Staphylococcus epidermidis (ATCC 51624)	1076 ppm	10 minutes
Salmonella en terica (ATCC 10708)	a) 1076 ppm b) 4306 ppm	a) 10 minutes b) 4 minutes
Pseudomonas aeruginosa (ATCC 15442)	a) 1076 ppm b) 4306 ppm	a) 10 minutes b) 4 minutes
Streptococcus pneumoniae (ATCC 6305)	4306 ppm	4 minutes
Escherichia coli O157:H7 (ATCC 35150)	1076 ppm	10 minutes
Acinetobacter baumannii (ATCC BAA-1709)	4306 ppm	4 minutes
Vancomycin resistant *Enterococcus faecalis* (ATCC 51575)	a) 1076 ppm b) 4306 ppm	a) 10 minutes b) 4 minutes
Carbapenem resistant *Klebsiella pneumoniae* (ATCC BAA-1705)	4306 ppm	4 minutes
Klebsiella pneumoniae (ATCC 4352)	1076 ppm	10 minutes
Virucidal Claims		
Respiratory syncytial virus† (ATCC VR-26)	538 ppm	10 minutes
Rhinovirus Type 14 † (ATCC VR-284)	1076 ppm	10 minutes
Influenza Virus H1N1† (ATCC VR-99)	1076 ppm	10 minutes
Human Immunodeficiency Virus Type 1 (HIV-1) † (Strain IIIB)	a) 1076 ppm b) 4306 ppm	a) 10 minutes b) 1 minute
Hepatitis A virus† (Strain HM175/18f)	a) 1076 ppm b) 4306 ppm	a) 10 minutes b) 1 minute
Hepatitis B virus† (Duck Hepatitis B (DHBV))	a) 1076 ppm b) 4306 ppm	a) 10 minutes b) 1 minute
Hepatitis C virus† (Bovine Viral Diarrhea Virus Strain NADL - surrogate for Hepatitis C virus)	4306 ppm	1 minute
Avian influenza A (H5N1)† (CDC #2006719965)	4306 ppm	1 minute
Norovirus† (ATCC VR-782)	2153 ppm	1 minute
Poliovirus Type 1† (ATCC VR-1000)	1076 ppm	10 minutes
Coxsackievirus B3† (ATCC VR- 30)	4306 ppm	1 minute
Herpes simplex virus type 1† (ATCC VR-733)	1076 ppm	10 minutes
Fungicidal/Yeasticidal Claims		
Aspergillus fumigatus (ATCC 36607)	4306 ppm	1 minute
Candida albicans (ATCC 10231)	4306 ppm	4 minutes
Trichophyton interdigitale (ATCC 9533)	1076 ppm	10 minutes

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PURTABS™

EFFERVESCENT SANITIZING / DISINFECTION TABLETS

PURTABS Usage Guidelines

PATHOGEN	MINIMUM DOSE REQUIRED (PPM)	MINIMUM CONTACT TIME REQUIRED (MINUTES)
Clostridium difficile Claims		
Clostridium difficile spores (ATCC 43598)	a) 2153 ppm b) 4306 ppm	a) 10 minutes b) 4 minutes
Mycobactericidal Claims		
Mycobacterium bovis (TB) (ATCC 35743)	5382 ppm	4 minutes
Animal Pathogens[1]		
Canine Parvovirus† (ATCC VR-2017)	1076 ppm	10 minutes
Herpes simplex virus type 1¥† (ATCC VR-733)	1076 ppm	10 minutes
Newcastle Disease Virus† (ATCC VR-180)	1076 ppm	10 minutes
Pseudorabies† (ATCC VR-135)	1076 ppm	10 minutes
Feline Calicivirus† (ATCC VR-782)	1076 ppm 2153 ppm	10 minutes 1 minute
Canine Distemper virus† (ATCC VR-128)	1076 ppm	10 minutes
Infectious Canine hepatitis¥† (ATCC VR 293)	1076 ppm	10 minutes
Teschen/Talfan disease¥† (ATCC VR-669)	1076 ppm	10 minutes
Influenza Virus H1N1† (ATCC VR-99)	1076 ppm	10 minutes
Avian influenza virus H5N1¥† (ATCC VR-1608)	4306 ppm	1 minute
Porcine parvovirus¥† (ATCC VR-742)	1076 ppm	10 minutes
Runting & Stunting virus (tenosynovitis)¥† (ATCC VR- 2449) (ATCC VR-21)	1076 ppm	10 minutes
Actinobacillus pleuropneumoniae¥† (NCTC 12370) (ATCC 27088)	1076 ppm	10 minutes
Bordetella bronchiseptica (rhinitis)¥† (ATCC 19)	1076 ppm	10 minutes
Brachyspira (Treponema/Serpulina)¥† (ATCC 27164)	1076 ppm	10 minutes
Hyodysenteriae (swine dysentery)¥† (ATCC 27164)	1076 ppm	10 minutes
Gumboro disease¥† (ATCC VR-478)	1076 ppm	10 minutes
Streptococcus uberis¥† (ATCC 9927)	1076 ppm	10 minutes
Transmissible gastroenteritis (TGE)¥† (ATCC VR-743)	1076 ppm	30 minutes
Swine Vesicular disease¥† (ATCC VR-158)	1076 ppm	30 minutes
African swine fever¥† (ASFV)	1076 ppm	30 minutes
Hog cholera/Classical swine fever¥† (CSFV)	1076 ppm	30 minutes
Avipox (fowl pox)¥† (FPV)	1076 ppm	30 minutes
Respiratory syncytial virus¥† (ATCC VR-26)	538 ppm	10 minutes
Bovine Viral Diarrhea Virus¥† (Strain NADL)	4306 ppm	1 minute
Porcine epidemic diarrhea virus¥† (Strain Colorado)	1076 ppm	10 minutes

†Note: This use has not been approved by the California DPR

¥Note: these organisms not approved by the state of California

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PUR:ONE (Dilution 0.5 ppm - 5550 ppm)

Safety Data Sheet Rev: 2

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 30th January 2019

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Trade name : PUR:ONE (Dilution 0.5 -5550 ppm)

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Effervescent NaDCC Tablets are used for surface disinfection

1.3. Supplier

Manufactured for:
EarthSafe Chemical Alternatives, LLC
145 Wood Road
Braintee, MA 02184
T 866-666-2305
info@earthsafeca.com

1.4. Emergency telephone number

Emergency number

USA

CHEMTREC 1-800-424-9300
IN THE EVENT OF A MEDICAL EMERGENCY CALL YOUR POISON CONTROL CENTER AT 1-800-222-1222
Have the product container or label with you when calling a poison control center or doctor or going for treatment.

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS-US labelling

No labelling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Troclosene Sodium / 1,3,5 -Triazine - 2,4,6 (1H, 3H,5H) - trione, 1, 3 - dichloro-,sodium salt	(CAS-No.) 2893-78-9	0.000025 - 0.28	Ox. Liq. 3, H272 Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Adipic Acid	(CAS-No.) 124-04-9	0.000012 - 0.13	Eye Irrit. 2A, H319
Sodium bicarbonate	(CAS-No.) 144-55-8	0.00001 - 0.12	Not classified
sodium carbonate	(CAS-No.) 497-19-8	0.000002 - 0.02	Eye Irrit. 2, H319
SURFAC SDBS80	NA	0.000001 - 0.01	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

5.2. Specific hazards arising from the chemical

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

Protective equipment for firefighters : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Troclosene Sodium / 1,3,5 -Triazine - 2,4,6 (1H, 3H,5H) - trione, 1, 3 - dichloro-,sodium salt (2893-78-9)
Not applicable

Adipic Acid (124-04-9)
Not applicable

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Sodium bicarbonate (144-55-8)
Not applicable

sodium carbonate (497-19-8)
Not applicable

SURFAC SDBS80
Not applicable

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

In case of repeated or prolonged contact (industrial environment), wear personal protective equipment.

Hand protection:

In case of repeated or prolonged contact (industrial environment), wear gloves; Chemical resistant gloves in accordance with OSHA requirements (29 CFR 1910.138)

Eye protection:

In industrial environment, use safety glasses for eye protection tested and approved in accordance with OSHA requirements (29 CFR 1910.133).

Respiratory protection:

Inhalation is unlikely route of exposure in this type of products

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Note: The Chemical/Physical properties outlined below relate to the tablet product which is used to prepare the in-use dilution solution.

Physical state	:	Solid
Appearance	:	Tablets.
Colour	:	white Off white
Odour	:	slight chlorine
Odour threshold	:	No data available
pH	:	No data available
pH solution	:	5.5 - 6.5 For neat form (as supplied)
Melting point	:	No data available
Freezing point	:	Not applicable
Boiling point	:	No data available
Flash point	:	Not applicable
Relative evaporation rate (butylacetate=1)	:	No data available
Flammability (solid, gas)	:	Non flammable.
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	Not applicable
Solubility	:	completely soluble. (100%) in water.
Log Pow	:	No data available
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	225 - 250 °C
Viscosity, kinematic	:	Not applicable
Viscosity, dynamic	:	No data available
Explosive limits	:	Not applicable
Explosive properties	:	No data available
Oxidising properties	:	No data available

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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Troclosene Sodium / 1,3,5 -Triazine - 2,4,6 (1H, 3H,5H) - trione, 1, 3 - dichloro-,sodium salt (2893-78-9)	
LD50 oral rat	735 mg/kg bodyweight

Sodium bicarbonate (144-55-8)	
LD50 oral rat	4220 mg/kg bodyweight

sodium carbonate (497-19-8)	
LD50 dermal rat	2210 mg/kg

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

PUR:ONE (Dilution 0.5 - 5550 ppm)	
Persistence and degradability	This material is believed not to persist in the environment. Free available chlorine is rapidly consumed by reaction with organic and inorganic materials to produce chloride ion. The stable degradation products are chloride ion and cyanuric acid. This material is subject to hydrolysis. Cyanuric acid produced by hydrolysis is biodegradable.

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12.3. Bioaccumulative potential

PUR:ONE (Dilution 0.5 - 5550 ppm)	
Bioaccumulative potential	This material hydrolyses in water liberating free available chlorine and cyanuric acid. These products are not bioaccumulative. Bioaccumulation not expected to occur.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Disposal Instructions for solution: In appropriate quantities and concentrations, and subject to local and national regulations, diluted solutions may be flushed to sanitary sewer.

Hazardous Waste Code: Not Assigned

Waste from residues/unused products/undiluted products/contaminated packaging: Dispose of according to local/national/international regulations. Contact appropriate licensed collector as required.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

USA:

All the ingredients in this preparation are listed in the EPA TSCA Inventory.
This product is registered under FIFRA. – Klorkleen 2 EPA registration number: 71847-7. “PUR:ONE” is sub-registered from Klorkleen 2, EPA Reg Number: 71847-7-91524
PLEASE REFER TO EPA MASTER LABEL FOR ADDITIONAL SAFETY AND OTHER INFORMATION ON THE MIXTURE

CERCLA/SARA – 302 ext. haz. substances – This material contains hazardous substance (Adipic Acid) as defined by CERCLA/SARA and the Reportable Quantity is 5000lbs.
SARA (311,312) – This product is categorized as an immediate health hazard, and fire and reactivity physical hazard (Sodium Dichloroisocyanurate)
Massachusetts Right-to-Know Hazardous Substances list – Listed (Adipic Acid, Sodium Dichloroisocyanurate)
New Jersey Right-to-Know Hazardous Substances list – Listed (Adipic Acid, Sodium Dichloroisocyanurate)
Pennsylvania Right-to-Know Hazardous Substances list – Listed (Adipic Acid, Sodium Dichloroisocyanurate)
Rhode Island Right-to-Know Hazardous Substances list – Listed (Adipic Acid, Sodium Dichloroisocyanurate)
Workplace Classification – This product is considered hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200)

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15.2. International regulations

Canada:
Canadian Chemical Inventory (DSL) – Listed
WHMIS hazard class –
D2B toxic materials
For Sodium dichloroisocyanurate:
C oxidizing materials
D1B toxic materials
For Sodium Carbonate:
E corrosive materials

The active substance is also listed in the following chemical inventories:
• Australian Chemical Inventory (AICS) –Listed
• China Chemical Inventory (IECSC) – Listed
• European Union Inventory (EINECS) –Reported
• Japan Chemical Inventory (ENCS) – Listed
• Korean Chemical Inventory (KECI) – Listed
• New Zealand Chemical Inventory (NZIOC) – Listed
• Philippines Priority Chemical List (PICCS) – Listed
The mixture is generally classified and registered as a disinfectant, biocide, or pesticide.

EU Regulation: If required for sale in Ireland (country of origin), the mixture must be notified to the Pesticide Control Service, Department of Agriculture, Food and the Marine as a biocide under its appropriate trade name.
The product is generally classified as a biocide in the EU, and as such is subject to regulation under EU Regulation No. 528/2012 (Biocidal Products Regulation), and all other applicable EU national biocide regulations.

SECTION 16: Other information

Full text of H-statements detailed in Section 3:

Note: These H (Hazard) statements are applicable to the ingredients used in the mixture as per Section 3 above – "GHS US classification".
The full text of these statements is shown below for information purposes.
As per Section 2, the in-use dilution solution is not classified under GHS regulation, so H statements are not applicable to the in-use dilution solution.

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

SDS US (GHS HazCom 2012) Prop 65 Correction

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

REVISION HISTORY:

Revision No. 2 – SDS updated to clarify Section 13 and to add more detail.

Revision No. 1 – SDS updated to clarify Section 9, and applicability of H statement table in Section 16.

Revision No. 0 – New SDS prepared to cover all in-use dilutions of Klorkleen 2 product

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PURTABS (Dilution 0.5 ppm - 5550 ppm)

Safety Data Sheet - Rev: 1

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 28th March 2019

SECTION 1: Identification

1.1. Identification

Product form : Mixture - Ready to use

Trade name : PURTABS (Dilution 0.5 - 5550 ppm)

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Effervescent NaDCC Tablets are used for drinking water disinfection & surface sanitizing and disinfection

1.3. Supplier

Manufactured for:
EarthSafe Chemical Alternatives, LLC
145 Wood Road
Braintee, MA 02184
T 866-666-2305
info@earthsafeca.com

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

USA:

IN THE EVENT OF A MEDICAL EMERGENCY CALL YOUR POISON CONTROL CENTER AT 1-800-222-1222

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS-US labelling

No labelling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Troclosene Sodium / 1,3,5 -Triazine - 2,4,6 (1H, 3H,5H) - trione, 1, 3 - dichloro-,sodium salt	(CAS-No.) 2893-78-9	0.00003 - 0.28
Adipic Acid	(CAS-No.) 124-04-9	0.00001 - 0.13
Sodium bicarbonate	(CAS-No.) 144-55-8	0.00001 – 0.12
sodium carbonate	(CAS-No.) 497-19-8	0.000002 - 0.02

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

See section 11.1.Toxilogical information

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Material will not burn. : Use a fire fighting agent suitable for the surrounding fire.

5.2. Specific hazards arising from the chemical

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

Protective equipment for firefighters : Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : For industrial or professional use only. Avoid release to the environment. Avoid contact with oxidizing agents (e.g. chlorine, chromic acid etc.)

Hygiene measures : Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store away from heat. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Troclosene Sodium / 1,3,5 -Triazine - 2,4,6 (1H, 3H,5H) - trione, 1, 3 - dichloro-,sodium salt (2893-78-9)
Not applicable

Adipic Acid (124-04-9)
Not applicable

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Sodium bicarbonate (144-55-8)
Not applicable

sodium carbonate (497-19-8)
Not applicable

No occupational exposure limit values exist for the components listed.

8.2. Appropriate engineering controls

Appropriate engineering controls : No engineering controls required.
Environmental exposure controls : Avoid release into the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment (PPE)

Hand/skin protection:
None required.

Eye/face protection:

None required.

Respiratory protection:

None required. Inhalation is unlikely route of exposure in this type of products.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Aqueous Solution
Color	:	Clear
Odor	:	Slight chlorine
Odor threshold	:	No data available
pH	:	No data available
pH solution	:	5.5 - 6.5 For neat form (as supplied)
Melting point	:	No data available
Freezing point	:	Not applicable
Boiling point	:	No data available
Flash point	:	No flash point
Relative evaporation rate (butylacetate=1)	:	No data available
Flammability (solid, gas)	:	Not applicable.
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	Not applicable
Solubility	:	completely soluble. (100%) in water.
Log Pow	:	No data available
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available
Viscosity, kinematic	:	Not applicable
Viscosity, dynamic	:	No data available
Explosive limits	:	Not applicable
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is generally non-reactive under normal conditions of use, storage and transport, but may reactive with certain agents/certain conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Troclosene Sodium / 1,3,5 -Triazine - 2,4,6 (1H, 3H,5H) - trione, 1, 3 - dichloro-,sodium salt (2893-78-9)	
LD50 oral rat	735 mg/kg bodyweight

Sodium bicarbonate (144-55-8)	
LD50 oral rat	4220 mg/kg bodyweight

sodium carbonate (497-19-8)	
LD50 dermal rat	2210 mg/kg

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

PURTABS (Dilution 0.5 - 5550 ppm)	
Persistence and degradability	This material is believed not to persist in the environment. Free available chlorine is rapidly consumed by reaction with organic and inorganic materials to produce chloride ion. The stable degradation products are chloride ion and cyanuric acid. This material is subject to hydrolysis. Cyanuric acid produced by hydrolysis is biodegradable.

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12.3. Bioaccumulative potential

PURTABS (Dilution 0.5 - 5550 ppm)	
Bioaccumulative potential	This material hydrolyses in water liberating free available chlorine and cyanuric acid. These products are not bioaccumulative. Bioaccumulation not expected to occur.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Disposal instructions for solution: In appropriate quantities/concentrations (subject to local/national regs.), diluted solutions may be flushed to sanitary sewer.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

USA:

All the ingredients in this preparation are listed in the EPA TSCA Inventory.
This product is registered under FIFRA - PURTABS EPA registration number: 71847-6-91524
PLEASE REFER TO EPA MASTER LABEL FOR ADDITIONAL SAFETY AND OTHER INFORMATION ON THE MIXTURE

CERCLA/SARA – 302 ext. haz. substances – This material contains hazardous substance (Adipic Acid) as defined by CERCLA/SARA and the Reportable Quantity is 5000lbs.
SARA (311,312) – This product is categorized as an immediate health hazard, and fire and reactivity physical hazard (Sodium Dichloroisocyanurate)
Massachusetts Right-to-Know Hazardous Substances list – Listed (Adipic Acid, Sodium Dichloroisocyanurate)
New Jersey Right-to-Know Hazardous Substances list – Listed (Adipic Acid, Sodium Dichloroisocyanurate)
Pennsylvania Right-to-Know Hazardous Substances list – Listed (Adipic Acid, Sodium Dichloroisocyanurate)
Rhode Island Right-to-Know Hazardous Substances list – Listed (Adipic Acid, Sodium Dichloroisocyanurate)
Workplace Classification – This product is considered hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200) THIS SAFETY DATA SHEET IS FOR READY TO USE SOLUTION.

15.2. International regulations

Canada:

Canadian Chemical Inventory (DSL) – Listed
WHMIS hazard class –
D2B toxic materials
For Sodium dichloroisocyanurate:
C oxidizing materials
D1B toxic materials

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For Sodium Carbonate:
E corrosive materials

The active substance is also listed in the following chemical inventories:
• Australian Chemical Inventory (AICS) –Listed
• China Chemical Inventory (IECSC) – Listed
• European Union Inventory (EINECS) –Reported
• Japan Chemical Inventory (ENCS) – Listed
• Korean Chemical Inventory (KECI) – Listed
• New Zealand Chemical Inventory (NZIOC) – Listed
• Philippines Priority Chemical List (PICCS) – Listed
The mixture is generally classified and registered as a disinfectant, biocide, or pesticide.

EU Regulation: If required for sale in Ireland (country of origin), the mixture is notified to the Pesticide Control Service, Department of Agriculture, Food and the Marine as a biocide under its appropriate trade name.
The product is generally classified as a biocide in the EU, and as such is subject to regulation under EU Regulation No. 528/2012 (Biocidal Products Regulation).

SECTION 16: Other information

NFPA Hazard Classification
Health: 0 **Flammability:** 0 **Instability:** 0 **Special Hazards:** None

HMIS Hazard Classification
Health: 0 **Flammability:** 0 **Physical Hazard:** 0 **Personal Protection:** See PPE Section

SDS US (GHS HazCom 2012) Prop 65 Correction

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

REVISION HISTORY:

Revision No. 1 – SDS prepared to cover all in-use dilutions of PURTABS product
Supersedes Date: 5/23/18

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