

Multi-Purpose Disinfectant

HYDROLYTE™

Tuberculocidal, Broad Spectrum Disinfectant
 Meets OSHA's Bloodborne Pathogen Standards
 This product kills 99.9% of Bacteria in 2 Minutes
 Active ingredient hypochlorous acid (HOCl) is derived
 from naturally occurring salt minerals and water

ACTIVE INGREDIENT:
 Hypochlorous acid..... 0.046%
OTHER INGREDIENTS:..... 99.954%

KEEP OUT OF REACH OF CHILDREN
 (See first and statement on back panel)
 Contains 500ppm Free Available Chlorine

NET CONTENTS: 1 U.S. Gallon / 3.8 Liters 5 U.S. Gallon / 18.9 Liters

DIRECTIONS FOR USE

For a complete list of Federal law to use this product in a manner consistent with the labeling.

DISINFECTION APPLICATIONS

Hard Non-Porous Surface Disinfection: To Clean, Disinfect and deodorize Hard, Non-Porous Surfaces: For heavily soiled areas, a preliminary cleaning is required. Apply Hydrolyte™ at 500 ppm FAC to hard non porous surfaces with a cloth, wipe, mop or sponge. Treated surfaces must remain wet for 10 minutes. Allow surfaces to air dry. This product is not to be used as a terminal sterilant/high level disinfectant on any surface or instrument. Part 1 is introduced directly into the human body, or 2) solution is used on mucous membranes but which does not ordinarily penetrate the epidermal barrier, or otherwise enter normally sterile areas of the body. This method may be used to pre-clean or decontaminate critical or semi-critical medical prior to sterilization or high level disinfection.

Special Instructions for Cleaning Prior to Disinfection against Clostridium difficile endospore: Personal Protection: Wear appropriate

personal protection such as gloves, gowns, masks or eye covering. Cleaning Procedure: fecal matter/waste must be thoroughly cleaned from area. Sponge or sponge saturated with product intended for disinfection. Cleaning should include vigorous wiping and scrubbing until 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 or red cloths.

Infectious Materials Disposal: Cleaning materials used that may contain feces, wastes, should be disposed of immediately in accordance with local regulations for infectious materials disposal.

Killing Clostridium difficile: Clean hard, non porous surfaces by removing gross soils, loose dirt, debris, blood, body fluids, etc. Apply this product and let stand for 10 minutes.

Special Instructions for Using this product to Clean and Decontaminate against HIV on Surfaces/Objects Soiled with Blood/Body Fluids: This product is an EPA pre-cleaned environmental surface objects previously soiled with blood, body fluids in health care settings. It is designed to clean, remove, or other settings in which there is an expected likelihood of soiling of non-porous surfaces/objects with blood or body fluids, and in which the disinfectant is 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.

Personal Protection: When handling items soiled with blood or body fluids use a protective barrier protection such as disposable latex gloves, gowns, masks, and eye coverings.

Cleaning Procedure: Blood and other body fluids must be thoroughly cleaned from surfaces and other objects before applying this product.

Contact Time: Apply to area to be treated. Let stand for 10 minutes.

Disposal of Infectious Materials: Blood and other body fluids must be properly cleaned and disposed of according to local regulations for infectious materials disposal.

Organisms for Disinfection Applications:

(Contact Time: 10 minutes)

BACTERIA:

Clostridium difficile – spore (C. Diff) (ATCC 43596)
Escherichia coli (ATCC 11229), **Klebsiella pneumoniae**, **New Delhi Metallo-Beta Lactamase (NDM-1) Carbapenem Resistant**, **GDCC (10002)**, **Listeria monocytogenes** (ATCC 7644), **Methicillin Resistant Staphylococcus aureus (MRSA)** (ATCC 33591), **Pseudomonas aeruginosa** (ATCC 15442), **Salmonella enterica** (ATCC 10708), **Staphylococcus aureus** (ATCC 6538), **Vancomycin Resistant Enterococcus faecalis (VRE)** (ATCC 51229), **Bordetella bronchiseptica** (Kernel Cough) (ATCC 10550)

MYCOBACTERIUM:

Mycobacterium bovis, **BCG** (Tuberculosis) or **TB**

VIROUSES ENVELOPED:

Human Immunodeficiency Virus Type 1 (HIV-1), strain RB (code 80), **Legionella**, **Swine Flu Virus (H1N1)**, **MSUmeier 1976/81** (ATCC VR-999), **Canine distemper** (ATCC VR-15871) (Strain Snyder Hill)

PARVOVIRUS NONENVELOPED:

Canine parvovirus (ATCC VR 2016) (Strain Cornell)

Hydrolyte™ is an activated aqueous solution of sodium hypochlorite produced by passing weak salt brine through an electrolytic cell using Electro-Chemical Activation (ECA) technology to temporarily change the properties of dilute salt water into a powerful oxidizing agent exhibiting antimicrobial properties. Hydrolyte™ is produced at a near neutral 6.5 pH where the predominant antimicrobial agent is hypochlorous acid and not the traditional efficacious species of chlorine. Hypochlorous acid kills bacteria. When produced, Hydrolyte™ (an anolyte solution), contains a minimum of 500 ppm free available chlorine (FAC). The properties of Hydrolyte™ can be precisely controlled by manipulating power to the electrolytic cell, flow rate, through the cell and the conductivity of the brine in the cell. Hydrolyte™ can be applied as a liquid or spray. Hydrolyte™ freezes at 32 F and boils at 212 F. Hydrolyte™ is a colorless aqueous solution, with a slightly chlorine or ozone odor. After production, Hydrolyte™ must be stored in a closed plastic container in a cool, dark area away from direct sunlight. Hydrolyte™ is intended to be used soon after being produced.

Hydrolyte™ cleans and disinfects: hospitals, medical clinics, ambulance, emergency rooms, dentist's offices, home health care settings, funeral homes, correctional facilities, dormitories, colleges, schools, day care centers, churches, gyms, swimming, locker rooms, hotels, cruise ships, airports, trains, yachts, compressors, food processing plants, restaurants, bars, green stores, veterinary facilities, kennels, pet shops, office buildings, public facilities and homes.



Safety Data Sheet

March 2017

Section I – Product and Company Identification

Product Name: Hydrolyte
Product Description: Electro-chemically activated solution of sodium or potassium chloride (0.9% or less)
CAS #: None (Mixture)
Manufacturer: PCT Corp.
Address: 4235 Commerce Street
Little River, SC 29566
Phone No: (843)390-7900

For information on health hazards call: (843)390-7900
For Product sales information call: (843)390-7900
24 Hour Emergency Information call: (800) 349-8171
Chemtec Emergency Number: (800) 424-9300

Section II – Hazards Identification

Hydrolyte is not classified as hazardous for environment disinfectant use.

HMIS Hazard Rating: Health = 1 Flammability = 0 Physical = 0 Reactivity = 0
0 = Minimal Hazard 1 = Slight Hazard 2 = Moderate Hazard 3 = Serious Hazard 4 = Severe Hazard

Section III – Composition and Information on Ingredients

| Component(s) | CAS # | % wt |
|-------------------|-----------|--------|
| Water | None | ≥99% |
| Hypochlorous acid | 7790-92-3 | ≤0.05% |

The Product contains no hazardous components.
The Product contains 500± ppm Free Available Chlorine (FAC).

Section IV – First Aid Measures

Under normal use conditions the likelihood of any adverse health effect is low.

Inhalation: If breathing problems develop, move away from Product and into fresh air.

Skin Contact: If any irritation occurs, wash affected area with water.

Eye Contact: If irritation occurs, flush eyes with water.

Ingestion: Drink an 8 oz. glass full of water.

Exposure Limits: No exposure limits established for the Product by ACGIH or OSHA.

Medical conditions generally recognized as being aggravated by exposure to Product: NA

Primary route(s) of exposure: Inhalation of Product vapors or fumes is the most common route of exposure in occupational settings.

Section I – Firefighting Measures

Not flammable or explosive.
Use fire extinguishing methods suitable to surrounding conditions

Section VI – Accidental Release Measures

Personal Precautions

No personal protective equipment is required under normal conditions. The following suggestions should be considered in case of accidental chlorine release due to acidification.

Ventilation: Open air or good room ventilation is normally adequate for the safe use of the Product. Avoid breathing any vapors or fumes resulting from acid ventilation.

Respiratory Protection: In accordance with OSHA regulations (29 CFR 1910.134 and 29 CFR 1910.1000) fogging or spraying applications may require worker respiratory protection, such as (1) NIOSH/MSHA approved air-purifying respirators, or (2) NIOSH/MSHA approved canister/cartridge facial respirators for chlorine/acid vapors.

Eye Protection: Although Product is designed to be safe for eyes, good manufacturing and laboratory practices recommend the use of chemical safety goggles for all applications involving chemical handling.

Protective Clothing: Although Product is designed to be safe for skin, good manufacturing and laboratory practice recommend that, at a minimum, rubber, neoprene, or other chemically impervious gloves be worn for all applications involving chemical handling.

Environmental Precautions

Product is $\leq 0.9\%$ sodium chloride or potassium chloride (salt) solution and $\leq 0.05\%$ available chlorine. Some localities allow such concentrations to be sent to open storm sewers; however local environmental regulatory requirements should be followed. If desired, spills can be washed to sewer with plenty of water, or neutralized using sodium sulfite or sodium thiosulfate.

Section VII – Handling and Storage

Precautions and conditions for safe handling: No special requirements are necessary. Store according to package directions.

Section VIII – Exposure Controls

Engineering Controls: Open air or good room ventilation is normally adequate for the safe use of the product. Avoid breathing any vapors or fumes resulting from acid ventilation.

Personal Protective Equipment: No personal protective equipment is required under normal conditions..

Section IX – Physical and Chemical Properties

| | |
|---|---|
| Physical State: | Liquid |
| Boiling Point (°C): | 100° C |
| Melting Point/Range: | NA |
| Flash Point (°C): | NA (Non flammable) |
| Vapor Pressure (mm Hg @ 20°): | NA |
| Vapor Density (Air = 1): | ND |
| Specific Gravity H ₂ O = 1): | 1.00 – 1.06 g/ml |
| Density: | 8.34 lbs/gal |
| Appearance / Color / Odor: | Clear, with a faint chlorinous/ozonous odor |
| Evaporation Rate: | Comparable to water |
| Solubility in Water: | Complete |
| pH: | 6.3 – 6.8 |

Section X – Stability and Reactivity

Stability: Loses its level of available chlorine at high temperatures and when exposed to direct sunlight.

Conditions to Avoid: Avoid accidental or uncontrolled contact of Product with acids and hydrogen peroxide.

Hazardous Decomposition Products: None.

Hazardous Polymerization: Will not occur.

Section XI – Toxicological Information

Developmental/Reproductive Toxicity: No conclusion has been made based on human and animal studies.

Carcinogenicity: No conclusion on the carcinogenicity of chlorine has been made based on the limited information available from human and animal studies. Neither the Product nor any of its constituents are listed in the latest NTP Annual Report on Carcinogens or has been found to be a potential carcinogen in the latest IARC Monograph or by OSHA.

Cytogenecity: Product does not possess cytogenetic activity based on the test results on chromosome induction operations in the bone marrow cells of mice.

Toxicity and exposure limits to Chlorine:

TLV/TWA: 1 ppm (3 mg/cubic meter)

TLV/STEL: 3 ppm (9 mg/cubic meter)

Acute Oral LD50 in rats g/kg 0.73;

Dermal LD50 in rats g/kg 1.26 – 2.0

Section XII – Ecological Information

Product does not present adverse effects to the environment.

Section XIII – Disposal Considerations

Packaging can be disposed of as local laws permit for a non-hazardous material.

Section XIV – Transportation Information

OSHA Label: None Required.

DOT Proper Shipping Name, Hazard Class, UN/NA Number Packing Group, RQ (If needed): Not DOT Regulated. No DOT label required.

Section XV – Regulatory Information

TSCA No: All chemicals in this Product are listed on the EPA TSCA Inventory list.

CERCLA/SARA: This Product has been reviewed according to the EPA "Hazard Categories" promulgated under Section 311 and 312 of SARA. It does not fall in any listed category and poses no risk of immediate (acute) health hazard, delayed (chronic) health hazard, fire hazard, or sudden release of pressure and is not reactive (see 29 CFR § 1910.1200).

OSHA Hazard Communication Standard: This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Clean Air Act: NA.

Section XVI – Other Information

This Safety Data Sheet (SDS) was prepared in accordance with the provisions and requirements of 29 CFR § 1910.1200(g) and discloses the physical and health hazards of all hazardous chemicals contained in the Product described in this MSDS, but unless otherwise noted, does NOT describe or disclose ALL of the chemicals/components in the Product, some of which may be Trade Secrets.

The information included in this MSDS is based on data developed or compiled by Paradigm Convergence Technologies Corporation (PCT) from open literature, independent laboratory studies, and other available scientific evidence and is believed to be accurate and complete, but PCT makes no warranty with respect thereto. **Neither does PCT make any representation or warranty, express or implied, with respect to the Product or its suitability for any purpose or use, hereby disclaiming all such warranties, including the implied warranties of merchantability**

and fitness for a particular purpose and the implied warranty that the Product is free of claims of third persons by way of infringement or the like. Anyone intending to use the Product described in this MSDS should satisfy himself that the Product (1) is suitable for their particular purposes and intended uses, and (2) meets any safety and health standards applicable thereto. It is the obligation of each user of the Product described in this MSDS to determine and comply with the requirements of all statutes – local, state and federal – applicable to its use, storage and disposal.

Symbols

ACGIH = American Conference of Governmental Industrial Hygienists
ASTMI = American Society for Testing and Materials International
CAS # = Chemical Abstracts Service Register number
CERCLA = Comprehensive Environmental Response Compensation and Liability Act
CL = Ceiling Limit
IARC = International Agency for Research on Cancer
NIOSH = National Institute for Occupational Safety and Health Hygienists
NA = No Applicable Information
ND = Not Determined
NFPA = National Fire Protection Association
NTP = National Toxicology Program
OSHA = Occupational Safety and Health Administration
OSHA, TWA = Occupational Safety and Health Administration, Time Weighted Average
PMCC = Pensky - Martens Closed Cup Flash Point Determination
SARA = Superfund Amendment and Reauthorization Act of 1986
STEL = Short Term Exposure Limit
TCC = Tagliabue Closed Cup flash point determination
TLV = Threshold Limit Value
TWA = Time Weighted Average, 8 hours

Additional Information/Comments

Hydrolyte was designed to be a less hazardous product than others currently in use.

Preparation Date (or latest revision): March 9, 2017
Prepared by: PCT Corp.