



Safety Data Sheet

July 2020

Section I – Product and Company Identification

Product Name: Annihilyte®
Product Description: Electro-chemically activated solution of sodium chloride (0.9% or less) None (Mixture)
CAS #:
Manufacturer: Annihilare Medical Systems, Inc. (Annihilare)
Address: 102 NW Court Square
 Lincolnton, NC 28092
Phone No: (855) 545-5677
For information on health hazards call: (855) 545-5677
For Product sales information call: (855) 545-5677

Section II – Hazards Identification

This product is not classified as hazardous for environment disinfectant use.

HMIS Hazard Rating: Health = 0 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 V – 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 (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 H₂O = 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 SDS, 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 SDS is based on data developed or compiled by Annihilare Medical Systems, Inc. from open literature, independent laboratory studies, and other available scientific evidence and is believed to be accurate and complete, but Annihilare

makes no warranty with respect thereto. **Neither does Annihilare 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 SDS 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 SDS 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

Annihilyte-1 was designed to be a less hazardous product than others currently in use.

Preparation Date (or latest revision):	July, 2020
Prepared by:	Annihilare