

Safety Data Sheet - Envirocleanse 500 (An Envirocleanse, LLC Product)

1. CHEMICAL MATERIAL, PREPARATION, AND SUPPLIER IDENTIFICATION

Name of chemical material, preparation: Charged Solutions

Purpose: Biocide: disinfectant (EPA Reg. #85134-1) for use on hard surfaces as well as biocide in oil fracking & sour wells, disinfectant of food, and disinfectant of potable water. Prepared by means of diaphragmatic electrolysis from aqueous 10 – 30 % sodium chloride (table salt) solution.

2. POSSIBLE HAZARDS OF CHEMICAL MATERIAL, PREPARATION

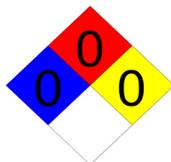
Hazards connected with possibility of fire or explosion: no

Hazards for health of people, results of possible effect: can irritate eyes. In case of eye contact, eyes can get red, they can tingle. In case of skin contact the affected skin can become sensitive or injured irritation, skin can become red. It can cause slight health disorders when inhaled or ingested. For more information see part 11.

Hazards for environment and effects of possible injury: not classified as hazardous for environment disinfectant.

3. COMPOSITION OF CHEMICAL MATERIAL, PREPARATION. INFORMATION ON COMPONENTS

Dangerous components:



Empirical (molecular) formula HClO

Molecular mass: 52,5

CAS No.	EINECS No.	Chemical name	Concentration (%) product mass	Symbols of hazardousness	Phrases of risk
7790-92-3	232-232-5	Hypochlorous Acid	0.034%	no	no
7681-52-9	231-668-3	Hypochlorite ion	0.00418%	no	no
Other mixed oxidants		Ozone, chlorine dioxide, chloric acid, chlorous acid	Total <0.0003%	no	no

4. FIRST AID MEASURES

Way of getting of chemical material, preparation to organism:

Inhalation: in case of inhalation, take the injured into the fresh air. If dizziness persists or symptoms of respiratory tract occur, immediately contact doctor.

Skin contact: in case of skin contact, wash with water and soap.

Eyes contact: in case of eye contact, immediately wash with water. If irritation persists, contact doctor.

Ingestion: rinse mouth with water, drink water.

Measures that can be taken only by doctor: effect can be considered as slight intoxication with chlorine.

In case of suspicions of intoxication with this material, contact immediately the nearest first aid, local poison control center or local Emergency room.

5. FIRE FIGHTING MEASURES

Suitable fire extinguishing measures: the preparation is non-flammable; fire extinguishing measures have to be chosen according to the properties of other materials existing in the fire focus. When affected by temperature a small quantity of chlorine segregates.

6. ACCIDENTAL RELEASE MEASURES

Measures of collective protection and personal protection: when washing it is recommended to ventilate the room, wear waterproof gloves. Do not inhale vapor when washing and do not bend towards the spilled preparation.

Environment pollution preventive measures: not necessary.

Chemical material, preparation gathering (scooping) and neutralization (decontamination) ways and measures: clean and gather the spilled preparation with any absorbing material. Additional decontamination ways are not necessary as Anolite decomposes and neutralized itself during a short time period returning to its initial state - water and salt. Do not use the gathered preparation for its purpose, it is can be emptied into sewerage.

7. CHEMICAL MATERIAL, PREPARATION HANDLING AND STORAGE

Requirements and recommendations for handling: handle in accordance with the requirements of handling instructions.

Requirements for storage: store in tightly closed light resistant containers in darkness as cool as possible place, but not below 5° C.

Not suitable (incompatible) chemical material for storing together: no

Instructions concerning limit quantity of chemical material, preparation that is possible to store under indicated conditions: not applied.

Requirements to packing of chemical material, preparation: plastic tightly closed bottles, reservoirs, containers, meant for storing anolyte by the user. The packing has to be marked.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Avoid direct contact with eyes, mucous membranes or direct inhalation of product. With continuous direct skin contact, recommend wearing protective latex or similar gloves. Product can bleach clothing if direct contact occurs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Colorless

Non-flammable

Liquid, mist, ice states

Slight chlorine like odor

Flash Point N/A (Non Combustible)

Boiling Point 100 °C

Freezing Point 0° C

pH 6.0-7.5

SG 1.02-1.06 g/l

10. STABILITY AND REACTIVITY

Stability: Product is stable under normal ambient temperatures including ice as well as maintaining stability up to 82⁰ C. No use of stabilizers required to maintain product activity. No need for special safety precautions if product is converted to mist or ice form.

Reactivity: Non-combustible, Non-Flammable

11. TOXICOLOGICAL INFORMATION

Acute toxicity on animals:

Indigestion, LD₅₀ : tests with rats have established that even concentrated, 0,05 %,.. Anolite solutions do not cause death.

Inhalation, LC₅₀: not established.

Through skin, LD₅₀ : not established.

Irritation: tests with rats, guinea-pigs have established that long-term skin contact of concentrated, .05% Anolite solutions can cause dermatitis.

Other effects on animals: tests have established that lethal to animals can be only concentrated .05% Anolite solution injections, however lethal effects could not be achieved even after prolonged use of such concentration solutions.

Effects on human:

Inhalation: in case of correct use of Anolite, real danger does not exist. However when mixing concentrated solutions with acids or acidic preparations bigger quantity of chlorine can be emitted. Chlorine vapour has a pickling effect. Burning sense can occur, difficult and more rapid breathing, headache, dizziness, soar can tingle. After some time symptoms similar to asthma can occur. Long-term effect causes lung oedema.

Eyes contact: possible tingle, eye redness.

Skin contact: .05% Anolite can cause skin irritation, redness if skin is sensitive. Tests with animals have established that long term repeated effect can cause dermatitis.

Ingestion: exact data does not exist.

Sensitization: tests with guinea pigs have established that even long term contact does not cause allergy.

Carcinogenicity, mutagenicity, toxicity to reproduction: during tests with animals these effects have not been established. It is not harmful, non-toxic, and not carcinogenic to warm-blooded organisms and animals.

12. ECOLOGICAL INFORMATION

Chemical material, preparation properties with possible effect for environment: hazardous for pathogenic organisms, viruses, and mildew fungi as a disinfectant.

Ecotoxicity (toxicity for water, soil organisms, other animals and plants) – lethal concentrations:

- For fish: not established;

- Daphnias: tests have established that concentrated Anolite solutions attenuated in ratio 1:500`

are not hazardous for daphnias;

Mobility: rapidly dissolves and resolves in water, dissipates.

Dissipation and decay (biodegradation) in environment: when getting into environment concentration of active chlorine decreases depending on water pH, microbiological, organic contamination, materials dissolved in it. The higher environment contamination, the quicker Anolite decays and neutralises.

Bioaccumulation: no

Data on other effects: no

13. CHEMICAL MATERIAL, PREPARATION WASTE HANDLING

Requirement not to dispose waste into environment: not applied

Chemical material, preparation waste, contaminated packaging disposal ways: remainders can be emptied to sewage. It neutralizes itself resolving into water and sodium chloride.

14. CHEMICAL MATERIAL, PREPARATION TRANSPORTATION

Preparation in tightly closed packages can be transported by any transport.

US Department of Transportation (DOT): Non-Regulated as a Hazardous Material

Canadian TDG (Transportation of Dangerous Goods): Not Regulated as a Hazardous Material

IMO (Water Transportation): Not Regulated as a Hazardous Material

IATA (Air Transportation): Not Regulated as a Hazardous Material

Rail: Not Evaluated

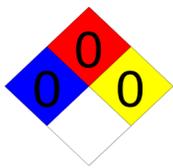
15. REGULATORY INFORMATION

Product approved by EPA Reg. #85134-1

FDA approval as Food Disinfectant

Information indicated on the label of chemical material, preparation package (tare):

Additionally a possibility to mark its production date and concentration of active chlorine after production has to be foreseen.



Hazard symbols: not applied.
Risk phrases: not applied.
Safety phrases: (S2) Keep out of reach of children

16. OTHER INFORMATION

List of hazard symbols, R phrases and digital signs according to sections 2 and 3

C Corrosive
N Environmental hazard
R31 Harmful when ingested
R34 Burns
R50 Very toxic to aquatic organisms

Date of original preparation: September 1, 2011

Revision SDS: December 18, 2015

Provided by Envirocleanse, LLC

Data provided in this safety data sheet has to be accessible to everyone whose work is connected with the chemical material, preparation. Data corresponds to our possessed knowledge and is meant to describe chemical material, aspects of occupational safety and health, environment protection. Information of safety data sheet will be replenished when new data on effects of chemical material, preparation on health and environment, on preventive measures to reduce hazards or totally avoid them originates. Information provided in the safety data sheet does not reveal other specific properties of chemical material, preparation.