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1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: HOCl, Cl HO, Hypochlorous Acid; Electrolyzed Water; Electro-chlorinated Water

Saline Solution

Synonym: Aqueous, dilute, hypochlorous acid, saline solution

Company Information:

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Comment: To the best of our knowledge, this Material Safety Data Sheet is in compliance with **US OSHA 29 CFR 1910.1200, 91/155/EEC as well as the Canadian Hazardous Products Act.**

2. COMPOSITION OF BRIOHOCL PrP FORMULA

Electro-chlorinated water:

Component	Wt %	^a CAS Registry	^b EINECS	^c RTECS	^d TSCA
Water	98.07 %	7732-18-5	215-185-5	ZC0110000	TSCA 8(b)
Sodium Chloride	1.9 %	8028-77-1	231-598-3	VZ4725000	TSCA 8(b)
Hypochlorous Acid	0.03%	7790-92-3	232-232-5	NH3470000	TSCA 8(b)

- CAS Registry – Chemical Abstract Service Registration Number
- EINECS – European Inventory of Existing Chemical Substances
- RTECS – Registry of Toxic Effects of Chemical Substances
- TSCA – Toxic Substance Control Act

3. HAZARDOUS IDENTIFICATION

This product does not contain hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200; or as defined under SARA 311 and 312.

Physical Appearance: Colorless, clear liquid

Cautions: In sensitive individuals, may cause eye and skin irritations; may cause digestive tract irritation, nausea, vomiting and / or diarrhea. Risk by accidental inhalation are not known but considered minimal.

4. FIRST AID MEASURES

This product is not known to cause any irritations by contact to the eyes, skin, through inhalation or ingestion; however, individuals may respond differently to various applications and in the interest of safety we elaborate on the previously mentioned cautions. This product is not for consumption; in an event of accidental exposure or overexposure through:

Eye Contact: Safe for eyes: If irritation develops, check for and remove contact lenses if present. If irritation persists, rinse with clean cool water.

Skin Contact: Safe for skin contact: If irritation develops, wash with clean cool water.

Ingestion: Safe for ingestion: however, as a saline product, can cause nausea if swallowed. If irritation develops, drink 2 to 4 cups of milk or water. Note that this is a topical product and not intended for consumption.

Inhalation: Safe for inhalation: If irritation develops, remove from exposure to fresh air.

5. FIRE FIGHTING MEASURES

This aqueous medium is not considered a fire hazard (Non-flammable material).

6. ACCIDENTAL RELEASE MEASURES

Minor spills may be mopped up and discarded in waste or sink.

Major spills (industrial): Clean up as you would with normalized salt water.

No personal protective gear required; e.g., protective gloves, goggles, face shield, apron. The material is not hazardous and turns to normalized saline upon contact.

7. HANDLING AND STORAGE

Industrial handling: Keep containers tightly closed and away from UV

Normal handling: no special handling required.

Storage: Store in a cool dry place away from direct sunlight and heat. Do not freeze.

Minimum temperature: 4 °C

Maximum temperature: 80 °C

Optimum temperature: 20 °C to 25 °C

8. PHYSICAL AND CHEMICAL PROPERTIES

Physical State and Appearance: clear, colorless liquid

Odor: Very dilute chlorine or bleach

Molecular Weight (g/mol): As a whole; N/A

Chemistry: Individual Components: Water – 18.02; Sodium Chloride 58.44; Hypochlorous Acid – 52.46

pH: adjusted between 3.9 and 6.5

Vapor Pressure (mm Hg): 760

Boiling Point: 101 °C

Freezing Point: May begin to freeze at -0.1 °C with concomitant precipitation of sodium chloride

Solubility: Water (complete)

Specific Density (g/mL at 20 °C): 1.0

% Volatiles: None

Flash Point: N/A

9. STABILITY AND REACTIVITY

Conditions to avoid: The material is considered safe under normal storage and handling conditions. Avoid high temperature, heat, sparks and flames. The medium is non-flammable.

Chemical Stability: This product is uniquely stable and safe in closed containers stored cool and dark (away from direct sunlight and sources of heat).

Hazardous Polymerization: Has not been reported and highly unlikely to occur.

Hazardous Decomposition Products: Low concentrations of chlorine may evolve if heated.

Incompatibilities: Ammonia, ammonium salts, reducing agents, reactive metals, iron and steel, aziridine, methanol, formic acid.

10. TOXICOLOGICAL INFORMATION

No known hazards in normal use or exposure.

Acute Dose effects:

Eyes: mild irritation

Inhalation LC₅₀: No data available for solution; decomposition as chlorine 293 ppm in 1 hour (rat); 137 ppm in 1 hour (mouse); note solutions are very dilute and the total amounts shown exceed that per liter of solution (rat)

Dermal / Skin: removes natural oils from skin causing dryness, prolonged exposure may result in irritation LD₅₀ > 5000 mg / kg

Oral: LD₅₀ 3000 mg / kg (rat); 4000 mg / kg (mouse)

Sensitization: N/A

Carcinogenicity:

As Listed by IARC: none

As Listed by NTP: none

As Listed by OSHA: none

As Listed by ACGIH: none

As Listed by NIOSH: none

Mutagenicity: N/A

Reproductive Effects: N/A

Teratogenic Effects: N/A

11. ECOLOGICAL INFORMATION

Environmental Impact: This product is not expected to bio-accumulate. When released into the air or water, its projected half-life is estimated to be <1 to 10 days. Accidental spills in aquatic environments are to be avoided due to salt content; expect immediate oxidative dilution on occurrence.

12. DISPOSAL CONSIDERATION

As a waste, this material in its raw form is not considered Hazardous Waste under RCA (**29 CFR 261**). Waste should be appropriately diluted and pH balanced to local water management standards with water and flushed to drain as local, state and federal ordinances allow and following proper waste stream management policies of the same and for the company.

13. TRANSPORTATION INFORMATION

Product Label: BrioHOCL PrP: Dilute Aqueous Hypochlorous Acid / Saline Solution

D.O.T. Shipping Name: Water, Saline Water

Technical Shipping Name: Oxidized Water

D.O.T. Hazard Class: None

UN Number: None

D.O.T. Label: None

D.O.T. Placard: None

Bulk Class: N/A

Package Class: 70, PG III

Canadian Transport and European Transport Information not available or known.

14. REGULATORY INFORMATION

TSCA Chemical Inventory: All of the components in this product are listed on the TSCA Inventory.

TSCA Sec 4 Chemical Test Rule: None of the components in this product are under a Chemical Test Rule.

TSCA Sec 8(d): None of the components in this product are on the Health and Safety Reporting List.

TSCA Sec 12(b) Notices of Export: None of the components in this product are on this list.

TSCA Significant New Use Rule (SNUR): None of the components in this product are on this list.

SARA Sec 302 (EHS) TPQ: None of the components in this product have a TPQ.

SARA Sec 302 (EHS) RQ: None of the components in this product have a RQ.

SARA Sec 311/312: NO; Chronic – NO; Fire – NO; Release of Pressure – NO; Reactivity – NO

SARA 313 List: None of the product components is reportable under Section 313 TitleIII and 40 CFR Part 372.

CERCLA Hazardous Substances and corresponding RQs: N/A

RCRA: None of the components in this product are on this list.

Clean Air Act: Hazardous Air Pollutants? NO **Class 1 Ozone Depletors?** NO **Class 2 Ozone Depletors?** NO

Clean Water Act: Hazardous Substance? NO **Priority Pollutant?** NO **Toxic Pollutant?** NO

Chemical Weapons Convention: None of the components in this product are on this list.

Drug Enforcement Agency (DEA) CDTA: None of the components in this product are on this list.

Environmental Protection Agency: Hypochlorous acid in this product solution is an EPA-registered biocide, chemical code 129054.

OSHA: None of the components in this product are considered Highly Hazardous by OSHA.

15. DISCLAIMER

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