



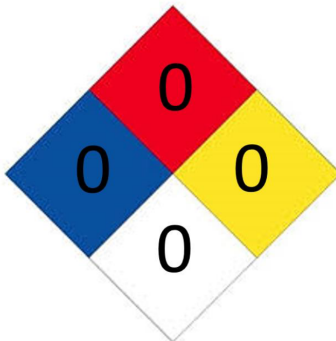
## Hypochlorous Additive Safety Data Sheet

### Section 1: Identification

- a. Product Name: Hypochlorous Additive
- b. Common Name/Trade Name: PURUS Hypochlorous Additive
- c. Chemical Name: Proprietary mixture of chemicals
- d. Chemical Formula: Proprietary mixture of chemicals
- e. Manufacturer/Supplier: PURUS HOCL, LLC, 1500 N. Limestone, Unit 140, Lexington, Kentucky 40505
- f. PURUS Emergency Phone Number: 859-687-0033
- g. Recommended Use: Only to be used with the PURUS Station to produce Hypochlorous Acid.
- h. Restrictions on Use: Do not mix with other chemicals, do not ingest.

### Secton 2: Hazards Identification

- a. Hazard Classification: This chemical is not identified as hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910 1200)
- b. Hazard Statement: This product contains no substances which, at their given concentration, are considered hazardous to health.
- c. Hazard Symbols:



- d. Precautionary Statements:

- a. Prevention: None
- b. Response: None
- c. Storage: None
- d. Disposal: None
- e. Other Hazards Not Otherwise Classified: Do not drink, may cause upset stomach.
- f. 0% of the mixture consists of ingredients with unknown acute toxicity.

### Section 3: Composition/Information on Ingredients

<u>Chemical Name</u>	<u>Formula</u>	<u>CAS#</u>	<u>Composition Weight %)</u>
Water	H <sub>2</sub> O	7732-18-5	<80%
Sodium Chloride	NaCl	7647-14-5	<25%
Ethanoic Acid	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	64-19-7	<2%
Sodium Acetate	C <sub>2</sub> H <sub>3</sub> NaO <sub>2</sub>	6131-90-4	<2%

Exact mixture composition is a proprietary formula.

The product contains no substances which at their given concentration are hazardous to health.

### Section 4: First Aid Measures

- a. First Aid Instructions
  - a. Eye contact: Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention
  - b. Skin contact: Rinse affected area with soap and water. If symptoms develop or persist, seek medical attention.
  - a. Inhalation: Loosen clothing as necessary and position individual in a comfortable position. Maintain an unobstructed airway. Get medical advice/attention if you feel unwell.
  - c. Ingestion: Rinse mouth and then drink plenty of water. Do not induce vomiting. Get medical advice/attention if you feel unwell.
- a. Most important symptoms or effects, acute or delayed: None known.
- b. Recommendations for immediate medical care and special treatment: None. Physician should treat patient symptomatically.

## **Section 5: Fire Fighting Measures**

- a. Suitable extinguishing equipment: Product is not flammable. If container catches use fire extinguisher to extinguish.
- b. Unsuitable extinguishing equipment: Product is not flammable. If container catches fire, water may be less efficient than using a fire extinguisher to extinguish.
- c. Explosion Data: Product is not flammable or explosive. Product is not sensitive to mechanical impact, nor is it sensitive to static discharge.
- d. Protective equipment and precautions for firefighters: As in many fires, wear self-contained breathing apparatus, pressure-demand MSHA/NIOSH approved (or equivalent) and full protective gear.
- e. Additional information (precautions): Heating causes a rise in pressure, risk of bursting and combustion. Shut off sources of ignition. Carbon monoxide and carbon dioxide may form upon combustion.

## **Section 6: Accidental Release Measures**

- a. Personal Protective Equipment Required: Ensure adequate ventilation. Ensure air handling systems are operational. Wear protective eye wear, gloves and clothing.
- f. Personal Precautions Required: Do not drink the product. Do not mix with any other chemicals.
- g. Emergency Procedures: None
- h. Containment Requirements: None
- i. Environmental Protections: Should not be released into the environment. Prevent from reaching drains, sewer or waterway.
- j. Clean-up Procedures: Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay) , acid binders, universal binders). Dispose of contents / container in accordance with local regulations.

## **Section 7: Handling and Storage**

- a. Precautions for safe handling: Lift and handle in accordance with standard industrial hygiene and safety practices. Do not eat, drink, smoke or use personal products when handling chemical substances. Avoid breathing mist or vapor. Use only with adequate ventilation.

- k. Conditions for safe storage: Keep containers tightly closed. Store at room temperature, between 65 and 85 degrees Fahrenheit, in a well-ventilated area. Store in original sealed containers. Do not allow to freeze.
- l. Incompatible products: Avoid contact with acids or bases.

### **Section 8: Exposure Controls/Personal Protection**

- a. OSHA Permissible Exposure Limits:
  - a. 64-19-7, Ethanoic Acid, ACGIH TLV: 25mg/m<sup>3</sup>.
  - b. 64-19-7, Ethanoic Acid, OSHA PEL: 25mg/m<sup>3</sup>.
- m. Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.
- n. Personal Protective Measures:
  - a. Eye and Face Protection: Safety goggles or glasses, or appropriate eye protection.
  - b. Skin and Body Protection: Wear gloves made of material impermeable and resistant to the substance.
  - c. No special protective equipment required.
  - d. Respiratory Protection: When necessary, use NIOSH-approved breathing equipment.
  - e. Hygiene Measures: Handle in accordance with standard industrial hygiene and safety practices. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes and clothing. Perform routine housekeeping. Wash contaminated clothing before reusing.

### **Section 9: Physical and Chemical Properties**

- a. Physical State: Liquid
- o. Appearance: Clear
- p. Color: Clear, colorless
- q. Vapor Pressure: 2.3 kPa or 17 mm Hg @ 20°C
- r. Odor: Slight vinegar-like
- s. Odor Threshold: Not determined

- t. Vapor Density: 0.62 (Air=1)
- u. pH: 2.0 - 2.5
- v. Relative Density: 1.0 (Water=1)
- w. Melting Point/Freezing Point: 0°C / 32°F
- x. Solubility: Soluble in water
- y. Initial Boiling Point/Boiling Range: 100°C / 212°F
- z. Flash Point: Not determined
- aa. Evaporation Rate: Not determined
- bb. Flammability: Product is not flammable. Product containers are flammable.
- cc. Partition Coefficient: n-octanol/water: Not determined
- dd. Auto-ignition Temperature: Not determined
- ee. Decomposition temperature: Not determined
- ff. Viscosity: 0.952 mPa at 20°C

### **Section 10: Stability and Reactivity**

- a. Reactivity: None.
- gg. Chemical stability: Stable under normal ambient conditions of temperature and pressure.
- hh. Possibility of Hazardous Reactions: None under normal storage and usage conditions.
- ii. Conditions to Avoid: None.
- jj. Incompatible Materials: Do not use or mix with ammonia, acids, bases, or other cleaning or disinfection chemicals.
- kk. Hazardous Decomposition Products: None at given pH and concentration of the product.

### **Section 11: Toxicological Information**

- a. Chronic toxicity: No information is available.
- c. Inhalation: No information is available.
- d. Ingestion: No information is available.
- e. Skin contact: No information is available.
- f. Eye contact: No information is available.
- g. Description of delayed, immediate or chronic effects from short- and long-term exposure: None, no information available.
- h. Numerical Measures of Toxicity:

- a. Acute Toxicity
  - a. Oral: LD50 orl-rat: 3310 mg/kg.
  - b. Dermal: Acetic Acid: LC50 inhalation-rat: 5620 ppm/ 1hr.
- i. Carcinogenicity: No information is available.
- j. Germ cell mutagenicity: No information is available.
- k. Reproductive Toxicity: No information is available.
- l. STOT-single and repeated exposure: No information is available.
- m. Additional toxicological information: No information is available.

### **Section 12: Ecological Information**

- a. Ecotoxicity: No additional information.
- ll. Persistence and Degradability: No additional information.
- mm. Bioaccumulation: No additional information.
- nn. Other Adverse Effects: No additional information.

### **Section 12: Ecological Information**

- a. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities. (US 40CFR262.11).

### **Section 14: Transport Information**

- a. DOT Classification: No special precautions are required.
- oo. UN Number: ADR, ADN, DOT, IMDG, IATA: Not regulated.
- pp. Limited Quantity Exception: None.
- qq. Hazard Class: None.

### **Section 15: Other Regulatory Information and Pictograms**

- a. United States (USA)
  - a. SARA Section 311/312 (Specific toxic chemical listings): None of the ingredients are listed.
  - b. SARA Section 313 (Specific toxic chemical listings): None of the ingredients are listed.
  - c. RCRA (hazardous waste code): None of the ingredients are listed.
  - d. TSCA (Toxic Substances Control Act) : All ingredients are listed.

- e. CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act): 64-19-7 Ethanoic Acid 5000.
- b. Proposition 65 (California):
  - a. Chemicals known to cause cancer: None of the ingredients are listed.
  - b. Chemicals known to cause reproductive toxicity for females: None of the ingredients are listed.
  - c. Chemicals known to cause reproductive toxicity for males: None of the ingredients are listed.
  - d. Chemicals known to cause developmental toxicity: None of the ingredients are listed.
- c. Canada
  - a. Canadian Domestic Substances List (DSL) : All ingredients are listed.

#### **Section 16: Other Information**

- a. Date of SDS Preparation: December 11, 2020
- rr. Date of Last Revision: Not applicable
- ss. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.