

Safety Data Sheet

AdvantEdge Cupric Starter

Section 1- Product and Company Identification

Supplier

ShoreMet LLC
3601 Enterprise Ave
Valparaiso, IN 46383

Manufacturer

ShoreMet LLC
3601 Enterprise Ave
Valparaiso, IN 46383

Company Contact: Travis Lechien

Telephone Number: (219) 390-3336 x300

Emergency Contact & Phone Number:

Emergency Phone Number: 800-535-5053 and +1 352-323-3500 in the USA and Canada

Product Name: AdvantEdge Cupric Starter

Alternative Names: AdvantEdge Cupric Starter – PWB (Max Free Acid – 1.5N), AdvantEdge Cupric Starter – Oxford (Max Free Acid – 0.05N), Cupric Chloride

Recommended Use/Restrictions on Use: For use in accordance with technical data sheets.

General Comments: Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, explosion, or accident involving chemicals. All non-emergency questions should be directed to customer service.

Section 2- Hazards Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;



Warning

Hazard Statements

DANGER: Toxic if swallowed. Causes severe skin burns and eye damage. May cause damage to organs. Very toxic to aquatic life Toxic to aquatic life with long lasting effects.

Precautionary Statements

Keep only in original container. Absorb spillage to prevent material damage. Store in corrosive resistant container with a resistant inner liner. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. If swallowed, immediately rinse mouth and contact a poison center. Store locked up. Dispose of contents / containers in accordance with applicable regulations. Wear protective gloves / clothing and eye / face protection. Do not breathe the mist. If on skin (or hair) Remove clothing, and shower. Wash contaminated clothing before reuse. If in eyes; rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If inhaled: remove to fresh air and keep at rest in a position comfortable for breathing. Avoid release to the environment. Collect spillage.

Safety Data Sheet

AdvantEdge Cupric Starter

GHS Classification

Corrosive to Metals, Category 1
 Acute Toxicity (Oral), Category 3
 Eye Irritant, Category 1
 Skin Irritant, Category 1
 Target Organ Systemic Toxicity, Category 2
 Aquatic Toxicity, Category 1
 Aquatic Chronic, Category 2

Hazards not otherwise classified (HNOC) or not covered by GHS

None

Section 3- Composition/Information on Ingredients

Ingredient	CAS Number	EC Number	Percent of Total Weight
Cupric Chloride	7447-39-4	231-210-2	27-50%
Hydrochloric Acid	7647-01-0	231-595-7	0.2-5.4%
Water	7732-18-5	231-791-2	balance

Section 4- First Aid Measures

First Aid: General Measures	Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on their back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor or hospital.
First Aid: Eyes	Immediately irrigate eyes with flowing water continuously for a minimum of 15 minutes, while holding eyes open and washing beneath eyelids. Contacts must be removed before or during flushing. Speed in rinsing eyes after contact is essential to prevent serious injury. Obtain medical attention immediately.
First Aid: Skin	Immediately flood affected skin area with water (safety shower is preferable) and remove clothing. Wash skin vigorously with flowing water and soap for at least 15 minutes. Do not apply salve or ointment. Continue washing in serious cases until medical help arrives, even for an hour or longer. Clothing should be discarded or washed before re-use. Obtain immediate medical attention.
First Aid: Ingestion	If victim is alert and not convulsing, rinse mouth with water and give large volumes of water to drink. If spontaneous vomiting occurs, have affected person lean forward with head down. Rinse mouth again, and give more water to drink. Obtain medical attention immediately.
First Aid: Inhalation	Remove affected person from area to fresh air and provide oxygen if breathing is difficult. Give artificial respiration ONLY if breathing has stopped, and give CPR ONLY if there is no breathing and no pulse. Obtain immediate medical attention.

Safety Data Sheet

AdvantEdge Cupric Starter

First Aid: Note to Physician	Treat patient symptomatically. Endoscopic evaluation of the patient may be warranted.
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Section 5- Firefighting Measures

Suitable Extinguishing Media	Dry chemical, Carbon Dioxide, Water Spray or Foam
Fire and Explosion Hazards	Cupric chloride is not considered to be a fire or explosion hazard.
PPE and Precautions for Firefighter	Avoid breathing vapors and keep upwind of fire. Move containers from area of fire if safely possible. Spray or fog of water is effective on ammonia vapors. Firefighters should use NIOSH-approved self-containing breathing apparatus (SCBA) with positive pressure full-face piece and wear impervious protective clothing.

Section 6- Accidental Release Measures

Required PPE, Equipment and Procedures	Avoid contact with skin, eyes and clothing. Wear protective clothing, gloves and eye protection. Keep unauthorized personnel away from the area.
Environmental Precautions	Do not dump in to any sewers, on the ground, or in to any water body.
Methods and Materials for Containment and Cleanup	Dike spills with sand or inert solid, and place in to drums or other containers that can be sealed. Very small spills may be flushed with large quantities of water and diluted.

Section 7- Handling and Storage

Handling Precautions	Avoid contact with skin, eyes and clothing. Wear proper protective clothing, gloves and eye protection. Wash thoroughly after handling this product. Avoid breathing vapor or mist by using respiratory protective equipment.
Storage Precautions	Store in a cool, well ventilated, dry location. Isolate from incompatible materials.

Section 8- Exposure Controls/Personal Protection (Continued)

Occupational Exposure Limit Values	Cupric Chloride, (syn. Copper (II) Chloride) OSHA PEL: 1mg (Cu)/m3 (8 hr TWA) ACGIH TLV: 1mg (Cu)/m3 (8 hr TWA) NIOSH: 100mg (Cu)/m3 (IDLH) Hydrochloric Acid OSHA PEL: 5ppm HCL (Ceiling Limit) OSHA PEL: 7mg/m3 ACGIH TLV: 5ppm
Engineering Controls	Ventilate the work area to avoid vapor and mist problems. Local exhaust is necessary if employees will be exposed to airborne levels that exceed the OSHA exposure limits. Recommended guidance documents include "Industrial Ventilation, A Manual of Recommended Practices," by ACGIH.
Individual Protection Measures	Wear appropriate eye protection such as safety glasses, face shield or splash goggles. Use chemical resistant gloves made of suitable material to prevent skin contact. The use of

Safety Data Sheet

AdvantEdge Cupric Starter

	<p>chemical resistant clothing is recommended.</p> <p>A NIOSH / MSHA approved respirator is necessary if a worker may be exposed to airborne contaminant levels exceeding the exposure limits given. It is the employer's responsibility to ensure that the proper respiratory protection is used, and that the worker is properly trained in the use and maintenance of respirators.</p> <p>Safety showers with quick opening valves which stay open, and eye wash fountains, or other means of washing the eyes with a gentle flow of cool tepid water, should be readily available in all areas where this material is handled or stored.</p>
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Section 9- Physical and Chemical Properties

Appearance	Clear, dark green liquid
Odor	Slight hydrochloric acid odor
Odor Threshold	Not known
pH	0.0 - 2.0
Melting Point /Freezing Point	Not known
Initial Boiling Point and Boiling Range	Boiling Point >212°F
Flash Point	Not known
Evaporation Rate	Not known
Flammability	Non-Flammable
Upper / Lower flammability or explosive limits	Not known
Vapor Pressure	Not known
Vapor Density	Not known
Relative Density	Not Known
Solubility	Soluble in water.
Partition Coefficient; n-octanol / water	Not known
Auto-Ignition Temperature	Not known
Decomposition Temperature	Not known

Section 10- Chemical Stability and Reactivity Information

Chemical Stability	Stable at Room Temperature
Possibility of Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Avoid contact with incompatible materials.
Incompatible Materials	Keep away from incompatible materials, avoid contact with oxidizing agents and sulfides.
Hazardous Decomposition Products	Emits toxic fumes of copper, hydrogen chloride or chlorine when heated to decomposition.

Safety Data Sheet

AdvantEdge Cupric Starter

Section 11- Toxicological Information

Exposure Routes	Dermal absorption, Inhalation, Ingestion
Delayed Effects	Hydrogen chloride and hydrochloric acid have no known or suspected carcinogenic activity.
Acute Effects	<p>Eye hazards: Direct eye contact may cause redness, pain, blurred vision and severe tissue damage leading to temporary or permanent injury, including corneal or conjunctival ulceration. Significant potential for corrosive burns to the entire eye. Blindness may result.</p> <p>Skin Hazards: Acute exposure may cause irritation, redness and burning of the skin.</p> <p>Ingestion Hazards: Ingestion of large amounts of copper may be toxic. Causes excessive salivation, nausea, vomiting, and corrosive burning of the gastrointestinal tract, including perforation. Repeated and prolonged ingestion may cause liver, kidney, or spleen damage. Lesser effects include sore throat, vomiting, metallic taste, hemorrhagic gastritis, and diarrhea.</p> <p>Inhalation Hazards: Corrosive overexposure causes burning, irritation and destruction of the mucous membranes and upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, sneezing, mucous production and sinus congestion.</p> <p>Other indications of overexposure are headache, nausea, vomiting, low grade fever, and shortness of breath.</p>
Chronic Effects	<p>Chronic exposure to this product may cause skin rashes, pain and discoloration of the skin. Repeated exposure may lead to allergic contact dermatitis.</p> <p>Chronic inhalation may result in permanent damage to the upper respiratory tract, particularly the lungs.</p> <p>Sub chronic (target organ effects) are observed for both cupric chloride and hydrochloric acid. Target organs for cupric chloride include eyes, skin, respiratory system, liver and kidneys. Target organs for hydrochloric acid are eyes, skin and the respiratory system.</p>
Acute Toxicity Estimates	This product is a liquid solution, however, for reference, the oral toxicity (rat) of solid crystalline Cupric Chloride (CuCl_2), expressed as the LD50 is 140mg/kg. For hydrochloric acid, the LD50 oral toxicity (rabbit) is 900 mg/kg.

Section 12- Ecological Information

Ecotoxicity	The ecotoxicity of this product has not been established. Cupric chloride is known to cause substantial negative ecological effects, both acute and chronic.
Persistence and degradability	Not known
Bioaccumulative potential	Not known
Mobility in soil	Not known
Other adverse effects	None identified.

Safety Data Sheet

AdvantEdge Cupric Starter

Section 13- Disposal Considerations

Description of waste residues	Waste residues may consist of unused, expired product, spill residues, and commercial packaging.
Safe Handling and Disposal methods	Material that cannot be used or chemically reprocessed and empty containers should be disposed of in accordance with all applicable regulations. Product containers should be thoroughly emptied before disposal. Generators of waste material are required and are solely responsible for evaluating all waste for compliance with RCRA and any local disposal procedures and regulations.

Section 14- Transportation Information

UN Number	UN 3264
UN Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s. (hydrochloric acid, copper chloride solution)
Transport Hazard Class(es)	8 - Corrosive
Packing Group	PG II
Marine Pollutant	Yes
Special Precautions	RQ (Reportable Quantity) notation may be required. (Cupric Chloride = 10 pounds, Hydrochloric Acid RQ = 5,000 lbs.). DOT Emergency Response Guidebook Number 154. Except when transported by vessel, non-bulk packaging and bulk packaging may be exempt from "Marine Pollutant" markings (See 49 CFR 171.4 and 172.332).

Section 15- Regulatory Information

Applicable Regulations	<p>US Regulatory Information</p> <p>TSCA: This product has been reported to the EPA Office of Toxic Substances in accordance with the requirements of the Toxic Substances Control Act (40 CFR 710).</p> <p>EPCRA: The following ingredients of this product are subject to reporting under SARA Title III, Section 313: Cupric Chloride (as copper compounds), Hydrochloric Acid</p> <p>SARA: Acute Health Hazard based on Hydrochloric Acid and Copper Compounds</p> <p>SARA Hazard Classes: Acute Health Hazard</p> <p>SARA Title III, Section 313 Supplier Notification</p> <p>This product contains Ammonia in concentrations at or above de minimus levels and which is listed as a toxic chemical in 40 CFR Part 372 pursuant to the requirements of Section 313 of Superfund Amendments and Reauthorization Act of 1986 (SARA). The act also requires that this notice accompany the SDS in all redistributions and may not be detached or omitted from future copies.</p> <p>Other International Regulations</p> <p>For regulatory requirements outside the United States of America, check with the appropriate regulatory agencies.</p>
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Safety Data Sheet

AdvantEdge Cupric Starter

Section 16- Other Information

Disclaimer	Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).
SDS preparer	ShoreMet
SDS revision date	March 1, 2024

Revision Log:

Revision	Date	Initiator	Description of Changes
	3/1/24		Original

This is the end of SDS for AdvantEdge Cupric Starter