

# Safety Data Sheet

Issue Date: 09-Jan-2023

Revision Date: 14-Feb-2024

Version 2

## 1. IDENTIFICATION

### Product identifier

**Product Name** AlgaeShield®

### Other means of identification

**SDS #** RWS-002

**Registration Number(s)** EPA Reg. No. 64962-9-102359  
**UN/ID No** UN3082

### Recommended use of the chemical and restrictions on use

**Recommended Use** For industrial use.

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Rec. Water Solutions, LLC  
903 N 47<sup>th</sup> Street, Suite 105  
Rogers, AR 72756

### Emergency telephone number

**Company Phone Number** 1-800-962-1492  
**Emergency Telephone** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Emergency Overview** This product is registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-EPA registered chemicals. See Section 15 for EPA information.

**Appearance** Clear blue liquid

**Physical state** Liquid

**Odor** Minimal

### Classification

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

### Signal Word

**Danger**

### Hazard statements

Causes severe skin burns and eye damage



### Precautionary Statements - Prevention

Do not breathe dusts or mists  
 Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a POISON CENTER or doctor  
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 Immediately call a POISON CENTER or doctor  
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other hazards**

Very toxic to aquatic life with long lasting effects

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Copper sulfate pentahydrate	7758-99-8	18.25-21.75

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

### 4. FIRST AID MEASURES

**Description of first aid measures**

<b>General Advice</b>	Immediately call a poison center or doctor/physician.
<b>Eye Contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
<b>Skin Contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
<b>Inhalation</b>	Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor/physician.
<b>Ingestion</b>	Rinse mouth. Do NOT induce vomiting.

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	May be harmful if swallowed. Causes severe skin burns and eye damage.
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**Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Probable mucosal damage may contraindicate the use of gastric lavage. Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact INFOTRAC 1-800-535-5053 for emergencies.
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### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

May react with high carbon metals to produce hydrogen gas, which can form an explosive mixture.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Caution should be exercised regarding personal safety and exposure to released product. Keep unnecessary people away, isolate hazard area and deny entry.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for Containment** Flush with water into retaining area or container.

**Methods for Clean-Up** Neutralize solution with bicarbonate of soda.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on Safe Handling** Do not breathe dusts or mists. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing and eye/face protection.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Store locked up. Store in a safe place away from pets and keep out of the reach of children. Store away from excessive heat. Product will freeze. Always store product above 32 degrees F (Do Not Freeze). Freezing may cause product separation. Always keep container closed. Keep away from galvanized pipe and any nylon storage or handling equipment.

**Incompatible Materials** Strong bases. Strong reducing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Copper sulfate pentahydrate 7758-99-8	TWA: 1 mg/m <sup>3</sup> Cu dust and mist	TWA: 1 mg/m <sup>3</sup> Cu dust and mist	IDLH: 100 mg/m <sup>3</sup> Cu dust and mist TWA: 1 mg/m <sup>3</sup> Cu dust and mist

**Appropriate engineering controls**

**Engineering Controls** Showers. Eyewash stations. Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Wear eye/face protection.

**Skin and Body Protection** Wear long-sleeved shirt, long pants, and shoes plus socks. Chemical resistant protective gloves.

**Respiratory Protection** Refer to 29 CFR 1910.134 for respiratory protection requirements.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid	<b>Odor</b>	Minimal
<b>Appearance</b>	Clear blue liquid	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Blue		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	0.2-0.3	
<b>Melting point / freezing point</b>	Not determined	
<b>Boiling point / boiling range</b>	220 °F	
<b>Flash point</b>	Not determined	
<b>Evaporation Rate</b>	Not determined	
<b>Flammability (Solid, Gas)</b>	Liquid-Not applicable	
<b>Flammability Limit in Air</b>		
<b>Upper flammability or explosive limits</b>	Not determined	
<b>Lower flammability or explosive limits</b>	Not determined	
<b>Vapor Pressure</b>	0.1 mm 68°F	
<b>Vapor Density</b>	1.0	(Air=1)
<b>Relative Density</b>	1.165-1.185	(Water=1)
<b>Water Solubility</b>	Completely soluble	
<b>Solubility in other solvents</b>	Not determined	
<b>Partition Coefficient</b>	Not determined	
<b>Autoignition temperature</b>	Not determined	
<b>Decomposition temperature</b>	Not determined	
<b>Kinematic viscosity</b>	Not determined	
<b>Dynamic Viscosity</b>	Not determined	
<b>Explosive Properties</b>	Not determined	
<b>Oxidizing Properties</b>	Not determined	

**10. STABILITY AND REACTIVITY****Reactivity**

Not reactive under normal conditions.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Hazardous Polymerization** Will not occur.

**Conditions to Avoid**

Incompatible Materials.

**Incompatible materials**

Strong bases. Strong reducing agents.

**Hazardous decomposition products**

Sulfur dioxide. Sulfur trioxide.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Product Information**

<b>Eye Contact</b>	Avoid contact with eyes.
<b>Skin Contact</b>	Avoid contact with skin.
<b>Inhalation</b>	Do not inhale.
<b>Ingestion</b>	May be harmful if swallowed.

**Component Information**

<b>Chemical name</b>	<b>Oral LD50</b>	<b>Dermal LD50</b>	<b>Inhalation LC50</b>
Copper sulfate pentahydrate 7758-99-8	= 472 mg/kg ( Rat )	> 8 g/kg ( Rabbit )	> 2.95 mg/L (Rat)

**Symptoms related to the physical, chemical and toxicological characteristics**

<b>Symptoms</b>	Please see section 4 of this SDS for symptoms.
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**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin corrosion/irritation</b>	Causes severe skin burns.
<b>Serious eye damage/eye irritation</b>	Causes severe eye damage.
<b>Carcinogenicity</b>	Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

<b>Oral LD50</b>	2,298.8506 mg/kg
<b>Dermal LD50</b>	36,818.40 mg/kg

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Very toxic to aquatic life with long lasting effects.

**Component Information**

Chemical name	Algae/aquatic plants	Fish	Crustacea
Copper sulfate pentahydrate 7758-99-8		0.09 - 0.19: 96 h Oncorhynchus mykiss mg/L LC50 static 0.1478 - 0.165: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.66 - 1.15: 96 h Lepomis macrochirus mg/L LC50 semi-static 0.96 - 1.8: 96 h Lepomis macrochirus mg/L LC50 static 0.6752: 96 h Pimephales promelas mg/L LC50 static	0.147 - 0.227: 48 h Daphnia magna mg/L EC50 Static

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

There is no data for this product.

**Mobility**

Not determined

**Other Adverse Effects**

Not determined

**13. DISPOSAL CONSIDERATIONS**

**Waste Treatment Methods**

**Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**California Hazardous Waste Status**

Chemical name	California Hazardous Waste Status
Copper sulfate pentahydrate 7758-99-8	Toxic

**14. TRANSPORT INFORMATION**

**Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**

UN/ID No

UN3082

Proper Shipping Name

Environmentally hazardous substance, liquid, n.o.s. (Cupric Sulfate)

Hazard class

9

**Packing Group** III  
**Reportable Quantity (RQ)** Cupric sulfate (10 lbs)  
**Marine Pollutant** Yes, if inner package is greater than 119 gallons.

**IATA**

**UN number** UN3082  
**Proper Shipping Name** Environmentally hazardous substance, liquid, n.o.s. (Cupric Sulfate)  
**Transport hazard class(es)** 9  
**Packing Group** III  
**Description** This material ships as a marine pollutant when inner packagings exceed 5L

**IMDG**

**UN number** UN3082  
**Proper Shipping Name** Environmentally hazardous substance, liquid, n.o.s. (Cupric Sulfate)  
**Transport hazard class(es)** 9  
**Packing Group** III  
**Marine Pollutant** This material ships as a marine pollutant when inner packagings exceed 5L

**15. REGULATORY INFORMATION**

**International Inventories**

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Copper sulfate pentahydrate	X				X	X		X	X

**Legend:**

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*
- ENCS - Japan Existing and New Chemical Substances*
- IECSC - China Inventory of Existing Chemical Substances*
- KECL - Korean Existing and Evaluated Chemical Substances*
- PICCS - Philippines Inventory of Chemicals and Chemical Substances*
- AICS - Australian Inventory of Chemical Substances*

**US Federal Regulations**

**CERCLA**

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Copper sulfate pentahydrate 7758-99-8	10 lbs	10 lbs	10 lbs

**SARA 313**

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Copper sulfate pentahydrate - 7758-99-8	7758-99-8	18.25-21.75	1.0

**CWA (Clean Water Act)**

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Copper sulfate pentahydrate		X		

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Copper sulfate pentahydrate 7758-99-8	X		X

**EPA Pesticide Registration Number** EPA Reg. No. 64962-9-102359

**EPA Statement**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**EPA Pesticide Label**

Please see EPA label for additional information

**Difference between SDS and EPA pesticide label**

Please see EPA label for additional information

**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	2	0	1	X
<b><u>HMIS</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical hazards</b>	<b>Personal Protection</b>
	2	0	1	X

Issue Date:

09-Jan-2023

Revision Date:

14-FEB-2024

Revision Note:

Section 3 Correction

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**