



# SAFETY DATA SHEET

## F-30 Algae Control

Issue Date 07-Jun-2011

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Version 1

Diversified Waterscapes, Inc. urges each customer or recipient of this SDS to study it carefully to become aware of and understand the hazards associated with the products. The reader should consider consulting reference works or individuals that are experts in ventilation, toxicology and fire prevention; as necessary or appropriate to use and understanding the data contained in this SDS.

To promote safe handling, each customer or recipient should (1) notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this SDS and any other information regarding hazards or safety (2) furnish this same information to each of its customers for the product (3) request its customers to notify their employees, customers and other users of the product information.

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### Product Identifier

**Product Name** F-30 Algae Control

#### Other Means of Identification

**SDS #** DW-001

**UN/ID No** UN3082

**Synonyms** Copper Sulfate Pentahydrate Algae Control

#### Recommended Use of the Chemical and Restrictions on Use

**Recommended Use** Algae control.

#### Details of the Supplier of the Safety Data Sheet

##### **Manufacturer Address**

Diversified Waterscapes, Inc.  
27324 Camino Capistrano  
Suite 213  
Laguna Niguel, CA 92677-1118

#### Emergency Telephone Number

**Company Phone Number** 949-582-5414

**Emergency Telephone** Chemtrec 1-800-424-9300

### 2. HAZARDS IDENTIFICATION

#### Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product

**Appearance** Blue liquid

**Physical State** Liquid

**Odor** Odorless

**Hazards Not Otherwise Classified (HNOC)**

May be harmful if swallowed

**Other Information**

Toxic to aquatic life

Toxic to aquatic life with long lasting effect

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Common name** Formula F-30 Algae Control.  
**Synonyms** Copper Sulfate Pentahydrate Algae Control.  
**Formula** CuSO<sub>4</sub>\*5H<sub>2</sub>O

Chemical Name	CAS No	Weight-%
Copper sulfate pentahydrate	7758-99-8	10.94

The specific chemical identity is being withheld as a trade secret and will be made available to health professionals under a certain specified situation.

**4. FIRST AID MEASURES****First Aid Measures**

**General advice** If exposed or concerned: Get medical advice/attention.

**Inhalation** Remove to fresh air. If breathing becomes difficult, call a physician.

**Eye Contact** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if irritation occurs.

**Ingestion** Call a physician or poison control center immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediately rinse mouth and drink plenty of water.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. If skin irritation occurs: Get medical advice/ attention.

**Most Important Symptoms and Effects, both Acute and Delayed**

**Symptoms** May cause slight irritation. May cause vomiting, nausea, gastric pain, and cramps.

**Indication of any Immediate Medical Attention and Special Treatment Needed**

**Note to Physicians** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**Dry chemical. Carbon dioxide (CO<sub>2</sub>). Foam. Water.

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

None known.

**Hazardous combustion products** None known.

### 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** Use personal protective equipment as required. Avoid contact with skin and eyes and inhalation of vapors. Ensure adequate ventilation, especially in confined areas.

**Environmental Precautions** See Section 12 for additional ecological information.

### Methods and Material for Containment and Cleaning Up

**Methods for Containment** For small spills, apply absorbent and sweep up. For large spills, pump into approved waste containers. Comply with all government regulations on spills.

**Methods for Cleaning Up** Keep in suitable, closed containers for disposal. Clean up in accordance with all applicable regulations.

## 7. HANDLING AND STORAGE

### Precautions for Safe Handling

**Advice on Safe Handling** Use personal protective equipment as required. Handle in accordance with good industrial hygiene and safety practice. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Wash face, hands, and any exposed skin thoroughly after handling. Follow all SDS/label precautions even after container is emptied because it may retain product residues. Do not remove labels from empty containers.

### Conditions for Safe Storage, Including any Incompatibilities

**Storage Conditions** Store in a cool, dry place. Keep container tightly closed. Keep container closed when not in use. Keep away from food, drink and animal feeding stuffs. Store locked up. Store away from incompatible materials. Empty containers retain product residues.

**Incompatible Materials** Concentrated chlorinated product.

## 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	-	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** Provide adequate local exhaust ventilation.

**Individual Protection Measures, such as Personal Protective Equipment**

<b>Eye/Face Protection</b>	Chemical goggles or full face shield.
<b>Skin and Body Protection</b>	Rubber gloves. Rubber apron. Normal work clothing (long sleeved shirts and long pants) is recommended. Trousers. Safety shoes.
<b>Respiratory Protection</b>	NIOSH-Approved respirator or mask in the absent of adequate ventilation.
<b>General Hygiene Considerations</b>	Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse. Avoid contact with eyes, skin and clothing. Avoid inhalation of contaminant.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on Basic Physical and Chemical Properties**

<b>Physical State</b>	Liquid	<b>Odor</b>	Odorless
<b>Appearance</b>	Blue liquid	<b>Odor threshold</b>	Not determined
<b>Color</b>	Blue		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
pH	Not determined		
Melting point/freezing point	Not determined		
Boiling point/boiling range	100 °C / 212 °F		
Flash point	Not determined		
Evaporation rate	Not determined		
Flammability (solid, gas)	N/A- Liquid		
Flammability limits in air			
Upper flammability limits	Not determined		
Lower flammability limit	Not determined		
Vapor pressure	Not determined		
Vapor density	Not determined		
Specific gravity	1.21	(1=Water)	
Water solubility	Completely soluble		
Solubility in other solvents	Not determined		
Partition coefficient	Not determined		
Autoignition temperature	Not determined		
Decomposition temperature	Not determined		
Kinematic viscosity	Not determined		
Dynamic viscosity	Not determined		
Explosive properties	Not determined		
Oxidizing Properties	Not determined		

**Other Information****10. STABILITY AND REACTIVITY****Reactivity**

Not reactive under normal conditions

**Chemical Stability**

Stable under normal conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous polymerization** Hazardous polymerization does not occur.

**Conditions to Avoid**

Contact with incompatible materials. Keep out of reach of children.

**Incompatible Materials**

Concentrated chlorinated product

**Hazardous Decomposition Products**

Sulfur trioxide above 653 ° C.

## 11. TOXICOLOGICAL INFORMATION

**Information on Likely Routes of Exposure**

**Product Information**

<b>Inhalation</b>	Avoid breathing vapors or mists.
<b>Eye Contact</b>	Avoid contact with eyes. <b>Skin</b>
<b>Contact</b>	Avoid contact with skin.
<b>Ingestion</b>	May be harmful if swallowed.

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Copper sulfate pentahydrate 7758-99-8	= 300 mg/kg ( Rat )	> 2 g/kg ( Rat )	-

**Information on Physical, Chemical and Toxicological Effects**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure**

**Carcinogenicity** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Numerical Measures of Toxicity- Product**

Not determined

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

<b>ATEmix (oral)</b>	2742 mg/kg
<b>ATEmix (dermal)</b>	18282 mg/kg

## 12. ECOLOGICAL INFORMATION

This product contains a chemical which is listed as a severe marine pollutant according to DOT.

**Ecotoxicity**

Toxic to aquatic life Toxic to aquatic life with long lasting effects

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Copper sulfate pentahydrate 7758-99-8		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 0.1478 - 0.165: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.09 - 0.19: 96 h Oncorhynchus mykiss 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 and Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**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.

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 The shipping classification information in this section is only applicable to a single container of 15 gallons or more

**DOT**

<b>UN/ID No</b>	UN3082
<b>Proper Shipping Name</b>	Environmentally hazardous substance, liquid, n.o.s. (Copper sulfate pentahydrate)
<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b>Reportable Quantity (RQ)</b>	Cupric sulfate (10 lbs)

This product contains a chemical which is listed as a severe marine pollutant according to DOT.

**IATA**

**UN/ID No** UN3082  
**Proper Shipping Name** Environmentally hazardous substance, liquid, n.o.s. (Copper sulfate pentahydrate)  
**Hazard Class** 9  
**Packing Group** III

**IMDG**

**UN/ID No** UN3082  
**Proper Shipping Name** Environmentally hazardous substance, liquid, n.o.s. (Copper sulfate pentahydrate)  
**Hazard Class** 9  
**Packing Group** III

**Marine Pollutant** This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

**15. REGULATORY INFORMATION**

**International Inventories**

**TSCA** Listed

**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*

**US Federal Regulations**

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Copper sulfate pentahydrate - 7758-99-8	7758-99-8	10.94	1.0

**SARA 311/312 Hazard Categories**

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Copper sulfate pentahydrate 7758-99-8		X		

**US State Regulations**

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

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

**U.S. EPA Label Information**

<b>16. OTHER INFORMATION</b>
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<b><u>NFPA</u></b>	<b>Health Hazards</b> Not determined	<b>Flammability</b> Not determined	<b>Instability</b> Not determined	<b>Special Hazards</b> Not determined
<b><u>HMIS</u></b>	<b>Health Hazards</b> 2	<b>Flammability</b> 0	<b>Physical Hazards</b> 0	<b>Personal Protection</b>

<b>Issue Date</b>	07-Jun-2011
<b>Revision Date</b>	29-Mar-2013
<b>Revision Note</b>	New format

**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



