



SAFETY DATA SHEET

F-30 Algae Control

Issue Date 07-Jun-2011

Revision Date 26-Feb-16

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
EPA Number: 27588

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 $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$

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_2). Foam. Water.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

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 ³ Cu dust and mist	-	IDLH: 100 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ Cu dust and mist

Appropriate Engineering Controls

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection	Safety glasses with side shields or goggles.
Skin and Body Protection	Chemical-resistant gloves. Normal work clothing (long sleeved shirts and long pants) is Recommended.
Respiratory Protection	None normally required. If needed, use NIOSH approved respirator for organic vapors and mists.
General Hygiene Considerations	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

Physical State	Liquid	Odor	Odorless
Appearance	Blue liquid	Odor threshold	Not determined
Color	Blue		
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	2.64		
Melting point/freezing point	Not applicable		
Boiling point/boiling range	100 °C / 212 °F		
Flash point	Not applicable		
Evaporation rate	Not applicable		
Flammability (solid, gas)	N/A- Liquid		
Flammability limits in air			
Upper flammability limits	Not applicable		
Lower flammability limit	Not applicable		
Vapor pressure	Not applicable		
Vapor density	Not applicable		
Specific gravity	1.21	(1=Water)	
Water solubility	Completely soluble		
Solubility in other solvents	Not applicable		
Partition coefficient	Not applicable		
Auto ignition temperature	Not applicable		
Decomposition temperature	Not applicable		
Kinematic viscosity	Not applicable		
Dynamic viscosity	Not applicable		
Explosive properties	Not applicable		
Oxidizing Properties	Not applicable		

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**

Inhalation	Avoid breathing vapors or mists.
Eye Contact	Avoid contact with eyes. Skin
Contact	Avoid contact with skin.
Ingestion	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 .

ATEmix (oral)	2742 mg/kg
ATEmix (dermal)	18282 mg/kg

12. ECOLOGICAL INFORMATION

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

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

UN/ID No

UN3082

Proper Shipping Name

Environmentally hazardous substance, liquid, n.o.s. (Copper sulfate pentahydrate)

Hazard Class 9
Packing Group III
Reportable Quantity (RQ) Cupric sulfate (10 lbs)
Marine Pollutant 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/NDL - 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

16. OTHER INFORMATION

NFPA

Health Hazards
Not determined

Flammability
Not determined

Instability
Not determined

Special Hazards
Not determined

HMIS

Health Hazards
2

Flammability
0

Physical Hazards
0

Personal Protection

Issue Date

07-Jun-2011

Revision Date

29-Mar-2013

Revision Note

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

