

# SAFETY DATA SHEET

11-Sep-2019

## 1. IDENTIFICATION

### Product identifier

**Product Name** PRO SERIES DUAL-ACTION ALGAECIDE

### Other means of identification

**Product Code** 20605PRO

**UN/ID no.** UN1760

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

**Recommended Use** Swimming pool algaecide.

**Uses advised against** Do not mix with other chemicals

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

#### **Supplier Address**

Bio-Lab, Inc.

P.O. Box 300002

Lawrenceville, GA 30049-1002

Telephone 800-859-7946

### Emergency telephone number

**Emergency Telephone** Chemtrec (Transportation) 1-800-424-9300, 703-527-3887  
Poison Control Center (Medical) : (877) 800-5553

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category C
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1B
Corrosive to metals	Category 1

### Label elements

#### **Emergency Overview**

#### **Danger**

#### **Hazard statements**

Harmful if inhaled

Causes severe skin burns and eye damage

Causes serious eye irritation

May cause an allergic skin reaction

May be corrosive to metals



**Color** Blue green**Physical state** liquid**Odor** Slight**Precautionary Statements - Prevention**

Use only outdoors or in a well-ventilated area  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Contaminated work clothing should not be allowed out of the workplace  
 Keep only in original container

**Precautionary Statements - Response**

IF exposed or if you feel unwell  
 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/physician  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell  
 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting  
 Absorb spillage to prevent material damage

**Precautionary Statements - Storage**

Store locked up  
 Store in original plastic container.

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

46.37% of the mixture consists of ingredient(s) of unknown toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Mixture**

Chemical Name	CAS No.	Weight-%
copper sulphate	7758-98-7	13.07
Poly[oxy-1,2-ethanediyl(dimethyliminio)-1,2-ethane diyl(dimethyliminio)-1,2-ethanediyl dichloride	31512-74-0	6.5
aluminium sulfate	10043-01-3	3 - 8

**4. FIRST AID MEASURES****Description of first aid measures****Eye contact**

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician.

**Skin contact**

Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. If skin irritation persists, call a physician.

**Inhalation**

Remove to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a

physician.

**Ingestion** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water. Call a physician immediately.

**Self-protection of the first aider** Use personal protective equipment as required.

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

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

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

**Unsuitable extinguishing media** None known.

**Specific hazards arising from the chemical**

No information available.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**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, eyes or clothing. Ensure adequate ventilation, especially in confined areas.

**Environmental precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional ecological information.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. Use personal protective equipment as required.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not mix with other chemicals.

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

<b>Storage Conditions</b>	Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.
<b>Incompatible materials</b>	Bases. Incompatible with oxidizing agents. Do not mix with other swimming pool/spa chemicals in their concentrated forms.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
copper sulphate 7758-98-7	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
aluminium sulfate 10043-01-3	-	(vacated) TWA: 2 mg/m <sup>3</sup> Al Aluminum	TWA: 2 mg/m <sup>3</sup> Al

NIOSH IDLH Immediately Dangerous to Life or Health

<b>Other Information</b>	Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).
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**Appropriate engineering controls**

<b>Engineering Controls</b>	Showers Eyewash stations Ventilation systems.
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**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin and body protection</b>	Wear protective gloves and protective clothing.
<b>Respiratory protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

<b>General Hygiene Considerations</b>	When using do not eat, drink or smoke. Wash contaminated clothing before reuse.
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**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

<b>Physical state</b>	liquid	<b>Odor</b>	Slight
<b>Appearance</b>	aqueous solution	<b>Odor threshold</b>	No information available
<b>Color</b>	Blue green		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH</b>	3 - 4	in 1% Solution	
<b>Melting point / freezing point</b>	No information available		
<b>Boiling point / boiling range</b>	No information available		
<b>Flash point</b>	> 100 C	Pensky-Martens Closed Cup (PMCC)	
<b>Evaporation rate</b>	No information available		
<b>Flammability (solid, gas)</b>	No information available		
<b>Flammability Limit in Air</b>			
<b>Upper flammability limit:</b>	No information available		
<b>Lower flammability limit:</b>	No information available		

<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	No information available
<b>Specific Gravity</b>	No information available
<b>Water solubility</b>	Miscible in water
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Kinematic viscosity</b>	13.4 mPa.s
<b>Dynamic viscosity</b>	No information available
<b>Density</b>	1.234 g/ml
<b>Bulk density</b>	No information available
<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	This product is not classified as an oxidizer under GHS.

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available

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

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Extremes of temperature and direct sunlight.

**Incompatible materials**

Bases. Incompatible with oxidizing agents. Do not mix with other swimming pool/spa chemicals in their concentrated forms.

**Hazardous Decomposition Products**

copper oxides. Carbon oxides.

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

<b>Inhalation</b>	May cause irritation of respiratory tract. Not an expected route of exposure.
<b>Eye contact</b>	Severely irritating to eyes. May cause burns.
<b>Skin contact</b>	Contact causes severe skin irritation and possible burns.
<b>Ingestion</b>	Harmful if swallowed.

<b>Chemical Name</b>	<b>Oral LD50</b>	<b>Dermal LD50</b>	<b>Inhalation LC50</b>
copper sulphate 7758-98-7	= 300 mg/kg ( Rat )	= 1000 mg/kg ( Rabbit )	-
Poly[oxy-1,2-ethanediyl(dimethyliminio)-1,2-ethanediyldimethyliminio]-1,2-ethanediyl dichloride 31512-74-0	= 1850 mg/kg ( Rat )	> 2 g/kg ( Rabbit ) > 2000 mg/kg ( Rabbit )	-
aluminium sulfate 10043-01-3	= 1930 mg/kg ( Rat )	-	-

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** May cause sensitization by skin contact.  
**Germ cell mutagenicity** No information available.  
**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Chronic toxicity** No information available.  
**Target Organ Effects** Eyes, Skin.  
**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

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

**ATEmix (oral)** 2099 mg/kg  
**ATEmix (dermal)** 4488 mg/kg  
**Oral LD50** 3500 mg/kg (rat)  
**Dermal LD50** > 5000 mg/kg (rabbit)  
**Inhalation LC50** > 2.03 mg/l aerosol (rat)

## 12. ECOLOGICAL INFORMATION

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

**Ecotoxicity**

Very toxic to aquatic life with long lasting effects

29.6% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
copper sulphate 7758-98-7	-	0.1: 96 h Oncorhynchus mykiss mg/L LC50	0.0058 - 0.0073: 48 h Daphnia magna mg/L EC50 Static
aluminium sulfate 10043-01-3	-	100: 96 h Carassius auratus mg/L LC50 37: 96 h Gambusia affinis mg/L LC50 static	136: 15 min Daphnia magna mg/L EC50

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

No information available.

**Other adverse effects**

No information available

## 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**

Do not reuse container. Refer to all federal, state and local regulations prior to disposal of container and unused contents by reuse, recycle or disposal.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

## 14. TRANSPORT INFORMATION

**Note:**

Limited quantity (LQ) exception is possible.

**DOT**

<b>UN/ID no.</b>	UN1760
<b>Proper shipping name</b>	Corrosive liquids, n.o.s. (aluminum sulfate)
<b>Hazard Class</b>	8
<b>Packing Group</b>	III
<b>Marine pollutant</b>	This product contains a chemical which is listed as a severe marine pollutant according to DOT.

**IATA**

<b>UN/ID no.</b>	UN1760
<b>Proper shipping name</b>	Corrosive liquid, n.o.s. (aluminum sulfate)
<b>Hazard Class</b>	8
<b>Packing Group</b>	III

**IMDG**

<b>UN/ID no.</b>	UN1760
<b>Proper shipping name</b>	Corrosive liquid, n.o.s. (aluminum sulfate)
<b>Hazard Class</b>	8
<b>Packing Group</b>	III
<b>Marine pollutant</b>	This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

## 15. REGULATORY INFORMATION

**International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
copper sulphate - 7758-98-7	1.0

**SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
copper sulphate 7758-98-7	10 lb	X	-	X
aluminium sulfate 10043-01-3	5000 lb	-	-	X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
copper sulphate 7758-98-7	10 lb	-	RQ 10 lb final RQ RQ 4.54 kg final RQ
aluminium sulfate 10043-01-3	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

**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 sulphate 7758-98-7	X	X	X
aluminium sulfate 10043-01-3	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number 5185-513

**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:

**Difference between SDS and EPA Pesticide label**

**DANGER:** Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wear protective eyewear (safety glasses or goggles) and rubber gloves. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b>NFPA</b>	Health hazards 3	Flammability 0	Instability 0	Physical and Chemical Properties -
<b>HMIS</b>	Health hazards 3	Flammability 0	Physical hazards 0	Personal protection X

Prepared By Regulatory Affairs  
Revision Date 11-Sep-2019  
Revision Note No information available

**Disclaimer**

The information provided in this Material 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**