



# Safety Data Sheet (SDS) BIO-DEX LABORATORIES, LLC

## Aqua Pure Algaecide

SDS Number: 219

Revision Date: 5/2/2015

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### 1 PRODUCT AND COMPANY IDENTIFICATION

#### Manufacturer

BIO-DEX LABORATORIES, LLC  
4212 W. INNOVATION DR.  
PHOENIX, AZ 85086

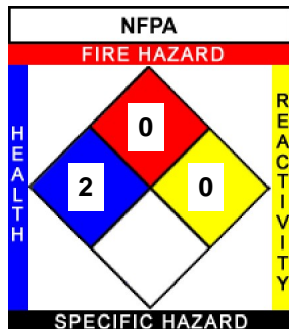
**Contact:** BIO-DEX LABORATORIES, LLC  
**Phone:** 800-617-3477 // 623-582-2400  
**Web:** www.bio-dex.com

**Product Name:** Aqua Pure Algaecide  
**Revision Date:** 5/2/2015  
**Version:** 1.00  
**SDS Number:** 219  
**CAS Number:** MIXTURE  
**Chemical Family:** Inorganic Salt Solution  
**Chemical Formula:** \*\*\* PROPRIETARY \*\*\*  
**Synonyms:** Swimming Pool Water Treatment  
**Product Use:** Algae and Slime Control  
**Emergency Phone:** (800) 424-9300 (CHEMTREC)

### 2 HAZARDS IDENTIFICATION

NFPA:  
HMIS III:

Health = 2, Fire = 0, Reactivity = 0  
H2/F0/PH0



HMIS III	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARDS	0
PERSONAL PROTECTION C   Safety Glasses, Gloves, Apron	

PERSONAL PROTECTION INDEX													
A		G											
B		H											
C		I											
D		J											
E		K											
F		X	Consult your supervisor or S.O.P. for "SPECIAL" handling directions										
A		n		O		p		q		r		S	
t		u		w		y		z		Additional information			

GHS Signal Word:  
WARNING

GHS Hazard Pictograms:





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### GHS Classifications:

Health, Acute toxicity, 4 Oral  
Health, Skin corrosion/irritation, 2  
Health, Serious Eye Damage/Eye Irritation, 2 A  
Environmental, Hazards to the aquatic environment - Chronic, 1

### GHS Phrases:

H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H410 - Very toxic to aquatic life with long lasting effects

### GHS Precautionary Statements:

P262 - Do not get in eyes, on skin, or on clothing.  
P264 - Wash skin thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P273 - Avoid release to the environment.  
P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P302+352 - IF ON SKIN: Wash with soap and water.  
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P321 - Specific treatment (see supplementary first aid instructions on this label).  
P332+313 - If skin irritation occurs: Get medical advice/attention.  
P337+313 - If eye irritation persists: Get medical advice/attention.  
P362 - Take off contaminated clothing and wash before reuse.  
P391 - Collect spillage. Hazardous to the aquatic environment.  
P405 - Store locked up.  
P501 - Dispose of contents/container to an approved waste disposal plant.

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### COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients:

Cas #	Percentage	Chemical Name
N/A	40-50%	Proprietary, non-hazardous, non-regulated
7758-99-8	20-30%	Sulfuric acid copper(2+) salt (1:1), pentahydrate
N/A	20%	Trade Secret*

\*The specific chemical identities of the ingredients of this mixture labeled as "Trade Secret" are considered to be proprietary and are withheld in accordance with the provisions of 29CFR1910.1200 Sect. (i) Trade Secrets.

## 4

### FIRST AID MEASURES

**Inhalation:** Give oxygen or artificial respiration if needed. If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.

**Skin Contact:** Promptly flush skin with water for at least 15 minutes to ensure all chemical is removed. Remove contaminated clothing and wash before reuse. If reddening develops and/or persists, obtain medical attention. Wash contaminated clothing before reuse.

**Eye Contact:** Flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Remove contact lenses if present and easy to do so. If irritation persists, obtain medical attention.

**Ingestion:** Rinse mouth with water. Give 3-4 glasses of water or milk to dilute stomach contents. Do NOT induce



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vomiting. If vomiting occurs, give more water or milk. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

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

The most important known symptoms and effects are described in the labelling (see Section 2) and/or Section 11.

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

No data available.

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**FIRE FIGHTING MEASURES**

**Flammability:** Not flammable  
**Flash Point:** DNA  
**Flash Point Method:** DNA  
**Burning Rate:** No data available  
**Autoignition Temp:** No data available  
**LEL:** No data available  
**UEL:** No data available

**Extinguishing Media:**

Water Spray  
Water Fog  
Carbon Dioxide  
Alcohol-Resistant Foam  
Dry Chemical

**Special Hazards Arising From the Substance or Mixture:**

Ammonia  
Carbon Oxides  
Copper Oxides  
Hydrochloric Acid gas  
Nitrogen Oxides (NOx)  
Sodium Oxides

**Advice for Firefighters:**

Firefighters should wear full-face, positive-pressure respirators.

**Further Information:**

If incinerated, may release toxic fumes.  
Use water spray to cool unopened containers.  
Liquid reagent itself is not flammable, but may release Ammonia which is flammable. Use caution.  
See Section 7 for more information on safe handling.  
See Section 8 for more information on personal protection equipment.  
See Section 13 for disposal information.



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### 6 ACCIDENTAL RELEASE MEASURES

#### Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protective equipment.  
Keep from contacting skin or eyes.  
Avoid breathing vapors, mist or gas.  
Ensure adequate ventilation.  
Evacuate personnel to safe areas.

#### Environmental Precautions:

Prevent further release (leakage/spillage) if safe to do so.  
Do not allow product to enter drains.  
Do not allow to drain to environment.  
Notify authorities if product enters sewers or public waters.

#### Methods and Materials for Containments and Cleaning Up:

Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).  
Place contaminated material into suitable, closed containers for disposal.  
Dispose of contaminated material according to Section 13.  
After spillage has been collected, area may be flushed with water or wet-brushed.  
Ensure adequate ventilation.

#### Reference to Other Sections:

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for information on proper disposal.

### 7 HANDLING AND STORAGE

#### Handling Precautions:

Avoid contact with eyes, skin, or clothing.  
Keep containers closed when not in use.  
Do not expose containers to open flame, excessive heat, or direct sunlight.  
Keep away from sources of ignition.  
Do not smoke, eat or drink when using this product.  
Do not puncture or drop containers.  
Handle with care and avoid spillage on the floor.  
Keep material out of reach of children.  
Keep material away from incompatible materials.  
Wash thoroughly after handling.  
Ensure adequate ventilation.

#### Storage Requirements:

Keep container tightly closed.  
Do not store in direct sunlight.  
Store away from strong acids, strong bases, strong oxidizing agents, strong reducing agents, dimethyl sulfate, powdered metals, hydroxylamine, Mercury, Magnesium, reactive metals (Zinc & Aluminum) and their alloys, Nickel, carbon steel and galvanized surfaces.

### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Engineering Controls:

All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to



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**Personal Protective Equip:** keep Exposure Limits in Air below TLV & PEL limits.  
Eye/face protection:  
When using material use safety glasses, gloves and apron according to HMIS PP, C. All safety equipment should be tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection:  
Handle with gloves made from PVC, Neoprene, Nitrile or Buna rubber. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Dispose of contaminated gloves according to applicable laws and laboratory practices.

Body Protection:  
Chemically resistant safety glasses, gloves and apron are recommended. Type of protective equipment should be selected based on concentration amount and conditions of use of this material.

Respiratory protection:  
Full-face vapor respirator may be required as backup to engineering controls when proper engineering controls are not in place to keep TLV and PEL limits below defined thresholds. Respiratory protection must comply with 29 CFR 1910.134.

Control of environmental exposure:  
Prevent leakage or spillage if safe to do so. Do not let material enter drains.

### Components with workplace control parameters:

Component(s): Sulfuric acid copper(2+) salt (1:1), pentahydrate  
CAS-No(s): 7758-99-8  
USA NIOSH (TWA/REL): 1.0 mg/m<sup>3</sup>

### Biological occupational exposure limits:

Contains no substances with biological occupational exposure limit values.

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## PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear, blue liquid	<b>Odor:</b>	Ammonia-like
<b>Physical State:</b>	Liquid	<b>Molecular Formula:</b>	MIXTURE
<b>Odor Threshold:</b>	Not determined	<b>Solubility:</b>	100%
<b>Particle Size:</b>	Not determined	<b>Softening Point:</b>	Not determined
<b>Spec Grav./Density:</b>	1.318 g/ml (11.00 lbs/gal)	<b>Percent Volatile:</b>	22.1%
<b>Viscosity:</b>	Not determined	<b>Heat Value:</b>	Not determined
<b>Sat. Vap. Conc.:</b>	Not determined	<b>Freezing/Melting Pt.:</b>	< 0.0 °C (32.0 °F)
<b>Boiling Point:</b>	> 100.0 °C (212.0 °F)	<b>Flash Point:</b>	DNA
<b>Flammability:</b>	(solid, gas): Not flammable	<b>Octanol:</b>	Not determined
<b>Partition Coefficient:</b>	Not determined	<b>Vapor Density:</b>	(air = 1): Not determined
<b>Vapor Pressure:</b>	(mm Hg @ 25 °C): Not determined	<b>VOC:</b>	DNA
<b>pH:</b>	@ 100%: 7.5 - 8.0	<b>Bulk Density:</b>	Not determined
<b>Evap. Rate:</b>	(N-Butyl Acetate = 1): Not determined	<b>Auto-Ignition Temp:</b>	Not determined
<b>Molecular weight:</b>	MIXTURE	<b>UFL/LFL:</b>	Not determined
<b>Decomp Temp:</b>	Not determined		



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**10 STABILITY AND REACTIVITY**

**Stability:** Product is stable under normal conditions.  
**Conditions to Avoid:** Incompatibilities, flames, ignition sources.  
**Materials to Avoid:** Strong acids, strong bases, strong oxidizing agents, strong reducing agents, dimethyl sulfate, powdered metals, hydroxylamine, Mercury, Magnesium, reactive metals (Zinc & Aluminum) and their alloys, Nickel, carbon steel and galvanized surfaces.  
**Hazardous Decomposition:** Ammonia, Carbon Oxides, Copper Oxides, Hydrochloric acid gas, Nitrogen Oxides (NOx) and Sodium Oxides.  
**Hazardous Polymerization:** Will not occur.

**11 TOXICOLOGICAL INFORMATION**

**Component(s):** Sulfuric acid copper(2+) salt (1:1), pentahydrate; Trade Secret  
**CAS No(s):** 7758-99-8; N/A

**Acute Toxicity:**  
LD50 Oral - Rat: 482 mg/kg  
LD50 Dermal - Rat: > 2,000 mg/kg

**Skin Corrosion/Irritation:** Irritating to skin.

**Serious Eye Damage/Eye Irritation:** Irritating to eyes.

**Respiratory or Skin Sensitation:** Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

**Germ Cell Mutagenicity:** No data available.

**Carcinogenicity:**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.  
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.  
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.  
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive Toxicity:** No data available.

**Specific Target Organ Toxicity - Single Exposure:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure:** No data available.

**Aspiration Hazard:** No data available.

**Additional Information:**

Component: Sulfuric acid copper(2+) salt (1:1), pentahydrate; RTECS: GL8900000



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**12** **ECOLOGICAL INFORMATION**

**Component(s):** Sulfuric acid copper(2+) salt (1:1), pentahydrate; Trade Secret  
**CAS No(s):** 7758-99-8; N/A

**Toxicity:**

*Toxicity to fish:*

Semi-Static Test LC50 - Lepomis macrochirus (Bluegill Sunfish): 0.66 - 1.15 mg/l (96 h)

Static Test LC50 - Lepomis macrochirus (Bluegill Sunfish): 0.96 - 1.80 mg/l (96 h)

*Toxicity to daphnia and other aquatic invertebrates:*

EC50 - Daphnia magna (Water Flea): 0.024 mg/l (48 h)

**Persistence and Degradability:**

No data available.

**Bioaccumulative potential:**

No data available.

**Mobility in Soil:**

No data available.

**Results of PBT and vPvB assessment:**

Not required/conducted.

**Other Adverse Effects:**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

**13** **DISPOSAL CONSIDERATIONS**

Product: Hazardous wastes shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution, release into the environment or damage to people and animals. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated Packaging: Dispose of as unused product.

**14** **TRANSPORT INFORMATION**

**DOT (US)**

Non-regulated material, liquid

**IMDG**

Non-regulated material, liquid

**IATA**

Non-regulated material, liquid





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### REGULATORY INFORMATION

#### COMPONENT / (CAS/PERC) / CODES

\*Sulfuric acid copper(2+) salt, pentahydrate (1:1) (7758998 20-30%) CERCLA, CSWHS, EPCRAWPC, MASS, NJHS, PA, SARA311/312, SARA313, TSCA

\*Trade Secret (N/A 20%) TSCA

#### REGULATORY KEY DESCRIPTIONS

CERCLA = Superfund clean up substance  
CSWHS = Clean Water Act Hazardous substances  
EPCRAWPC = EPCRA Water Priority Chemicals  
MASS = MA Massachusetts Hazardous Substances List  
NJHS = NJ Right-to-Know Hazardous Substances  
PA = PA Right-To-Know List of Hazardous Substances  
SARA311/312 = SARA 311/312 Toxic Chemicals  
SARA313 = SARA 313 Title III Toxic Chemicals  
TSCA = Toxic Substances Control Act

#### EPA FIFRA Pesticide Product Notice

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

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### OTHER INFORMATION

#### Disclaimer:

The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material in any process. The information set forth herein is furnished free of charge and is based on technical data that BIO-DEX LABORATORIES, LLC. believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside of BIO-DEX LABORATORIES, LLC's control, BIO-DEX LABORATORIES, LLC. makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under, or a recommendation to infringe upon, any patents.

#### Preparation Information:

GHS Conversion Services  
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