# EPA Reg #72536-3-12281

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Date of Issue: 05/26/2017 Version: 1.0

#### **SECTION 1: IDENTIFICATION**

#### 1.1. Product Identifier

**Product Form:** Mixture **Product Name:** Algae

#### 1.2. Intended Use of the Product

Use of the Substance/Mixture: Algaecide/Herbicide

#### 1.3. Name, Address, and Telephone of the Responsible Party

#### Manufacturer/Company

Sea 7 Technologies Inc. 10214 Chestnut Plaza Dr

Fort Wayne, Indiana 46814-8970

(260) 348-3255

#### Distributor

Durvet, Inc.

100 SE Magellan Drive Blue Springs, Mo. 64014

(800) 821-5570

# 1.4. Emergency Contact Information

**Emergency Telephone Number** 

Company Phone Number 816-229-9101(normal business hours)

(800) 821-5570 (24 hour number)

Emergency Telephone (24 hr) Chemtrec 1-800-424-9300 (North America) 1-703-527-3887 (International)

# **SECTION 2: HAZARDS IDENTIFICATION**

#### 2.1. Classification of the Substance or Mixture

# **GHS-US Classification**

Eye Dam. 1 H318 Aquatic Acute 1 H400 Aquatic Chronic 2 H411

Full text of hazard classes and H-statements: see section 16

# 2.2. Label Elements

#### **GHS-US Labeling**

Hazard Pictograms (GHS-US)





Signal Word (GHS-US) : Danger

**Hazard Statements (GHS-US)** : H318 - Causes serious eye damage.

H400 - Very toxic to aquatic life.

H411 - Toxic to aquatic life with long lasting effects.

Precautionary Statements (GHS-US) : P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, and eye protection. P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a poison center or doctor.

P391 - Collect spillage.

P501 - Dispose of contents/container in accordance with local, regional, national,

and international regulations.

#### 2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

### 2.4. Unknown Acute Toxicity (GHS-US)

No data available

# **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#### 3.1. Substance

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Not applicable

#### 3.2. Mixture

Name	Product Identifier	%	GHS-US classification
Water	(CAS-No.) 7732-18-5	85	Not classified
Sulfuric acid, copper(2+) salt (1:1), pentahydrate	(CAS-No.) 7758-99-8	5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

	<u>.</u>		
Copper	(CAS-No.) 7440-50-8	5	Aquatic Acute 1, H400
			Aquatic Chronic 3, H412
Sulfuric acid	(CAS-No.) 7664-93-9	5	Met. Corr. 1, H290
			Skin Corr. 1A, H314
			Eye Dam. 1, H318
			Aquatic Acute 3, H402

Full text of H-phrases: see section 16

# **SECTION 4: FIRST AID MEASURES**

#### 4.1. Description of First-aid Measures

**First-aid Measures General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First-aid Measures After Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**First-aid Measures After Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

**First-aid Measures After Eye Contact:** Get immediate medical advice/attention. Rinse cautiously with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

#### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Injuries: Causes serious eye damage.

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.

**Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation. May cause an allergic reaction in sensitive individuals.

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects. May cause gastrointestinal irritation.

**Chronic Symptoms:** None known. Strong inorganic acid mists containing sulfuric acid are carcinogenic to humans over extended periods of time, if this product is altered, concentrated, and in inhalable fractions, it may pose this hazard.

#### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

# **SECTION 5: FIRE-FIGHTING MEASURES**

# 5.1. Extinguishing Media

Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide. Alcohol-resistant foam.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

# 5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Product is not explosive. Not explosive, but may release hydrogen gas on contact with some metals.

**Reactivity:** Hazardous reactions will not occur under normal conditions. Copper sulfate can undergo hazardous reactions with acetylene, potassium chlorate, strong bases, hydroxylamine, and magnesium.

#### 5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. Remove containers from fire area if this can be done without risk. Do not breathe fumes from fires or vapors from decomposition.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection. **Hazardous Combustion Products:** Thermal decomposition generates: Sulfur oxides. Oxides of copper. Metal oxides. Sulfuric acid. Irritating fumes

**Other Information:** Do not allow run-off from fire fighting to enter drains or water courses.

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# **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not breathe vapor, mist or spray. Do not get in eyes, on skin, or on clothing.

#### 6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

#### **6.2.** Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

# 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. **Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Ventilate area. Cautiously neutralize spilled liquid. Absorb and/or contain spill with inert material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

#### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

# **SECTION 7: HANDLING AND STORAGE**

# 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** May be corrosive to metals upon prolonged contact. Contact with metals may evolve flammable hydrogen gas. There is sufficient evidence that occupational exposure to strong inorganic acid mists containing sulfuric acid is carcinogenic to humans over extended periods of time, if this product is altered, concentrated, and in inhalable fractions, it may pose this hazard.

**Precautions for Safe Handling:** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid breathing vapors, mist, and spray. Do not get in eyes, on skin, or on clothing. Use appropriate personal protective equipment (PPE).

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

#### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Keep only in original container. Keep container closed when not in use. Containers which are opened should be properly resealed and kept upright to prevent leakage.

**Incompatible Products:** Strong acids, strong bases, strong oxidizers. Acetylene. Potassium chlorate. Hydroxylamine. Magnesium. Reactive metals.

# 7.3. Specific End Use(s)

No use is specified.

# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

Copper (7440	-50-8)		
USA ACGIH	ACGIH TWA (mg/m³)	0.2 mg/m³ (fume)	
USA NIOSH	NIOSH REL (TWA) (mg/m³)	1 mg/m³ (dust and mist)	
		0.1 mg/m³ (fume)	
USA IDLH	US IDLH (mg/m³)	100 mg/m³ (dust, fume and mist)	
USA OSHA	OSHA PEL (TWA) (mg/m³)	0.1 mg/m³ (fume)	
		1 mg/m³ (dust and mist)	
Sulfuric acid (	Sulfuric acid (7664-93-9)		
USA ACGIH	ACGIH TWA (mg/m³)	0.2 mg/m³ (thoracic particulate matter)	

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**USA ACGIH** ACGIH chemical category Suspected Human Carcinogen contained in strong inorganic acid

mists

 $\begin{array}{lll} \textbf{USA NIOSH} & \textbf{NIOSH REL (TWA) (mg/m}^3) & 1 \text{ mg/m}^3 \\ \textbf{USA IDLH} & \textbf{US IDLH (mg/m}^3) & 15 \text{ mg/m}^3 \\ \textbf{USA OSHA} & \textbf{OSHA PEL (TWA) (mg/m}^3) & 1 \text{ mg/m}^3 \\ \end{array}$ 

8.2. Exposure Controls

**Appropriate Engineering Controls** 

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed

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**Personal Protective Equipment** : Gloves. Protective clothing. Protective goggles.







Materials for Protective Clothing : Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.Eye Protection: Chemical safety goggles.

**Skin and Body Protection**: Wear suitable protective clothing.

**Respiratory Protection** : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient

protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory

protection.

Environmental Exposure Controls : Avoid release to the environment.

Other Information : When using, do not eat, drink or smoke.

#### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

# 9.1. Information on Basic Physical and Chemical Properties

Physical State : Liquid

: No data available **Appearance** Odor No data available **Odor Threshold** : No data available : No data available pН : No data available **Evaporation Rate** : No data available **Melting Point Freezing Point** : No data available **Boiling Point** : No data available : No data available **Flash Point Auto-ignition Temperature** : No data available : No data available **Decomposition Temperature** Flammability (solid, gas) : Not applicable Vapor Pressure : No data available Relative Vapor Density at 20°C : No data available **Relative Density** : No data available Solubility : No data available Partition Coefficient: N-Octanol/Water : No data available

**9.2.** Other Information No additional information available

# **SECTION 10: STABILITY AND REACTIVITY**

**10.1. Reactivity:** Hazardous reactions will not occur under normal conditions. Copper sulfate can undergo hazardous reactions with acetylene, potassium chlorate, strong bases, hydroxylamine, and magnesium.

: No data available

- **10.2. Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).
- 10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
- **10.4. Conditions to Avoid:** Direct sunlight, extremely high or low temperatures, and incompatible materials.
- **10.5. Incompatible Materials:** Strong acids, strong bases, strong oxidizers. Acetylene. Potassium chlorate. Hydroxylamine. Magnesium. Reactive metals.
- **10.6. Hazardous Decomposition Products:** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

#### **SECTION 11: TOXICOLOGICAL INFORMATION**

# 11.1. Information on Toxicological Effects

Acute Toxicity: Not classified

Viscosity

Sulfuric acid, copper(2+) salt (1:1), pentahydrate (7758-99-8)		
LD50 Oral Rat 960 mg/kg		
Sulfuric acid (7664-93-9)		

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LD50 Oral Rat	2140 mg/kg

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: Causes serious eye damage.

**Respiratory or Skin Sensitization:** Not classified

Germ Cell Mutagenicity: Not classified Carcinogenicity: Not classified

Sulfuric acid (7664-93-9)	
IARC group	1
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified Specific Target Organ Toxicity (Repeated Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation. May cause an allergic reaction in sensitive individuals

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects. May cause gastrointestinal irritation.

**Chronic Symptoms:** None known. Strong inorganic acid mists containing sulfuric acid are carcinogenic to humans over extended periods of time, if this product is altered, concentrated, and in inhalable fractions, it may pose this hazard.

# **SECTION 12: ECOLOGICAL INFORMATION**

#### 12.1. Toxicity

**Ecology - General**: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Sulfuric acid, copper(2+) salt (1:1), pentah	ydrate (7758-99-8)
LC50 Fish 1	0.66 (0.66 - 1.15) mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [semi-
	static])
EC50 Daphnia 1	0.147 (0.147 - 0.227) mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 Fish 2	0.09 (0.09 - 0.19) mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
Copper (7440-50-8)	
LC50 Fish 1	0.0068 - 0.0156 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
EC50 Daphnia 1	0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 Other Aquatic Organisms 1	0.0426 (0.0426 - 0.0535) mg/l (Exposure time: 72 h - Species: Pseudokirchneriella
	subcapitata [static])
LC50 Fish 2	< 0.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Other Aquatic Organisms 2	0.031 (0.031 - 0.054) mg/l (Exposure time: 96 h - Species: Pseudokirchneriella
	subcapitata [static])
Sulfuric acid (7664-93-9)	
LC50 Fish 1	500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
LC50 Fish 2	42 mg/l (Exposure time: 96 h - Species: Gambusia affinis [static])

# 12.2. Persistence and Degradability

Product A	
Persistence and Degradability  No accumulation.	
Copper (7440-50-8)	
Persistence and Degradability  Not readily biodegradable.	

# 12.3. Bioaccumulative Potential

Product A		
Bioaccumulative Potential	Not established.	
Sulfuric acid (7664-93-9)		
BCF Fish 1	(no bioaccumulation)	

# **12.4. Mobility in Soil** No additional information available

#### 12.5. Other Adverse Effects

Other Information : Avoid release to the environment.

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# **SECTION 13: DISPOSAL CONSIDERATIONS**

#### 13.1. Waste Treatment Methods

**Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, and international regulations.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

**Ecology - Waste Materials:** Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

# SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

The AquaVet Algae gallon and qt fall under the new LQT rule (Limited Quantity of Dangerous Material) which places an emphasis on the less than 1.3 gallon per unit exemption.

#### 14.1. In Accordance with DOT (See LQT Rule above for small packout)

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sulfuric acid, copper (2+) salt

(1:1), pentahydrate)

Hazard Class: 9Identification Number: UN3082Label Codes: 9

Packing Group : III

Marine Pollutant : Marine pollutant

ERG Number : 171 14.2. In Accordance with IMDG

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sulfuric acid, copper(2+) salt

(1:1), pentahydrate)

Hazard Class : 9
Identification Number : UN3082
Packing Group : III
Label Codes : 9
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-F

Marine Pollutant : Marine pollutant

14.3. In Accordance with IATA

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sulfuric acid, copper(2+) salt

(1:1), pentahydrate)

Packing Group : III
Identification Number : UN3082
Hazard Class : 9
Label Codes : 9
ERG Code (IATA) : 9L



# SECTION 15: REGULATORY INFORMATION

#### 15.1. US Federal Regulations

Product A		
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard	
Copper (7440-50-8)		
Listed on the United States TSCA (Toxic Substances	s Control Act) inventory	
Subject to reporting requirements of United States	s SARA Section 313	
CERCLA RQ	5000 lb no reporting of releases of this hazardous substance is	
	required if the diameter of the pieces of the solid metal released is	
	>100 µm	
SARA Section 313 - Emission Reporting	1 %	
Water (7732-18-5)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
Sulfuric acid (7664-93-9)		

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Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on the United States SARA Section 302

Subject to reporting requirements of United States SARA Section 313

CERCLA RQ	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb
SARA Section 313 - Emission Reporting	1 % (acid aerosols including mists, vapors, gas, fog, and other airborne
	forms of any particle size)

# 15.2. US State Regulations

Sulfuric acid (7664-93-9)	
U.S California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of
	California to cause cancer.

#### Copper (7440-50-8)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- U.S. Pennsylvania RTK (Right to Know) List

# Sulfuric acid (7664-93-9)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- U.S. Pennsylvania RTK (Right to Know) List

# SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Date of Preparation or Latest Revision** 

: 05/26/2017

Other Information

: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR

1910.1200

# **GHS Full Text Phrases:**

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H400	Very toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)

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