

SAFETY DATA SHEET

AQUASOURCE SULFURIC ACID, 93-98%

Version 1

Revision Date 10/28/2019

Print Date 10/28/2019

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SULFURIC ACID, 93-98%

Product Use Description : Inorganic fertiliser
Water treatment chemical
Manufacture of man-made fibers

Company : Blue Ridge Elements, LLC
3730 Old Tasso Rd NE
Cleveland, TN 37312
USA

Telephone : +14236930803

Fax : N/A

E-mail address : info@blueridgeelements.com

Emergency telephone : CHEMTREC within US, Tel: 1-800-424 9300 CHEMTREC
outside US, Tel:+1-703-527-3887

2. HAZARDS IDENTIFICATION

Emergency Overview

Physical state	liquid
Color	colorless
Odor	none

GHS Classification

Skin corrosion, Category 1
Serious eye damage, Category 1
Acute aquatic toxicity, Category 3

GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H402 Harmful to aquatic life.

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Precautionary Statements : **Prevention:**
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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/ physician.
P363 Wash contaminated clothing before reuse.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/container in accordance with local regulation.

Potential Health Effects

Inhalation : Inhalation of aerosols may cause irritation to mucous membranes.
Thermal decomposition can lead to release of irritating gases and vapors.

Skin : Symptoms may be delayed.
Causes severe skin burns.

Eyes : Causes serious eye damage.

Ingestion : Causes burns.

Aggravated Medical Condition : None known.

Symptoms of Overexposure : The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.

Carcinogenicity:

IARC : Classification refers to sulfuric acid contained in strong inorganic acid mists
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

NTP : Classification refers to sulfuric acid contained in strong inorganic acid mists
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

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ACGIH

: Classification refers to sulfuric acid contained in strong inorganic acid mists

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

Chemical Name	CAS-No.	Classification	Concentration [%]
Sulphuric acid	7664-93-9	Skin Corr. 1A; H314 Eye Dam. 1; H318 Aquatic Acute 3; H402	93 - 99

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

- General advice : Immediate medical attention is required.
Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.
- Inhalation : If breathed in, move person into fresh air.
Consult a physician after significant exposure.
- Skin contact : Take off contaminated clothing and shoes immediately.
Rinse immediately with plenty of water.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- Eye contact : Rinse with plenty of water.
Get medical attention immediately. Continue to rinse during transport of patient.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
- Ingestion : Clean mouth with water and drink afterwards plenty of water.
Never give anything by mouth to an unconscious person.
Take victim immediately to hospital.
Do not induce vomiting! May cause chemical burns in mouth and throat.
- Notes to physician**
- Symptoms : The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.
- Treatment : Treat symptomatically.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide (CO2)
Dry chemical
Foam

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Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire fighting / Specific hazards arising from the chemical	: The product reacts with water and generates heat. Do not allow run-off from fire fighting to enter drains or water courses.
Combustion products	: Sulfur oxides
Special protective equipment for fire-fighters	: Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.
Further information	: Strong oxidizer. Contact with other material may cause fire. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

See also Section 9. Physical and chemical properties: Safety data

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	: Use personal protective equipment. Ensure adequate ventilation.
Environmental precautions	: Try to prevent the material from entering drains or water courses.
Methods for cleaning up / Methods for containment	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.
Additional advice	: For personal protection see section 8.

7. HANDLING AND STORAGE

Handling

Advice on safe handling	: For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.
Advice on protection against fire and explosion	: Normal measures for preventive fire protection. The product reacts with water and generates heat.

Storage

Requirements for storage areas and containers	: Keep container tightly closed in a dry and well-ventilated place. Should be stored separated from organic materials and reducing agents. Do not store together with foodstuffs.
Other data	: No decomposition if stored and applied as directed.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value	Control parameters	Update	Basis	Form of exposure
Sulphuric acid	7664-93-9	TWA	0.2 mg/m3	2007-01-01	ACGIH	Thoracic fraction
	Further information	:	Pulmonary function M: Classification refers to sulfuric acid contained in strong inorganic acid mists A2: Suspected human carcinogen			
		TWA	1 mg/m3	2013-10-08	NIOSH REL	
		TWA	1 mg/m3	1997-08-04	OSHA Z-1	
		TWA	1 mg/m3	1989-01-19	OSHA P0	

STEL: Short term exposure limit

TWA: Time Weighted Average

Engineering measures

Effective exhaust ventilation system

Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection : Wear eye/face protection.
Tightly fitting safety goggles
Face-shield

Hand protection : Glove material: For prolonged or repeated contact use protective gloves.
: Glove material: Protective gloves complying with EN 374.

Skin and body protection : Protective suit

Respiratory protection : In the case of vapor or aerosol formation use a respirator with an approved filter.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
Wash hands before breaks and at the end of workday.

Environmental exposure controls

General advice : Try to prevent the material from entering drains or water courses.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid

Color : colorless

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Odor	: none
Odor Threshold	: No data available
Safety data	
pH	: < 1 at 1 % solution
Melting point	: -35 - 5 °C
Boiling point	: 275 - 338 °C
Flash point	: The product is not flammable.
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Vapor pressure	: 0.03 - 0.05 hPa at 20 °C
Relative vapor density	: Not applicable
Relative density	: 1.83 - 1.84 at 20 °C
Water solubility	: soluble, Reacts violently with water.
Solubility in other solvents	: not determined
Partition coefficient: n-octanol/water	: Not applicable
Autoignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, dynamic	: 22 - 27 mPa.s at 20 °C
Viscosity, kinematic	: No data available
Explosive properties	:
Oxidizing properties	: No data available

This material safety datasheet only contains information relating to safety and does not replace any product information or product specification.

10. STABILITY AND REACTIVITY

Conditions to avoid	: Extremes of temperature and direct sunlight.
Materials to avoid	: Strong reducing agents Combustible material Powdered metals Nitrate Cyanides

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	Sulfides Strong bases Chlorate
Hazardous decomposition products	: Sulfur oxides
Thermal decomposition	: No data available
Reactivity	: Stable under normal conditions.
Chemical stability	: Stable under recommended storage conditions.
Hazardous reactions	: No dangerous reaction known under conditions of normal use. The product reacts with water and generates heat. Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

PRODUCT INFORMATION:

Toxicology Assessment

CMR effects : Carcinogenicity:
Not classifiable as a human carcinogen.

Further information : No further data available.

Test result

Carcinogenicity:

IARC	: Classification refers to sulfuric acid contained in strong inorganic acid mists No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	: Classification refers to sulfuric acid contained in strong inorganic acid mists No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	: Classification refers to sulfuric acid contained in strong inorganic acid mists

TOXICOLOGY DATA FOR THE INGREDIENTS:

Toxicology Assessment

Component: Sulphuric acid.

CMR effects : Carcinogenicity: Not classifiable as a human carcinogen.

Further information : No further data available.

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Test result

Component: Sulphuric acid

Skin irritation : Result: Causes severe burns.

Sensitization : Result: Does not cause skin sensitization.

12. ECOLOGICAL INFORMATION

PRODUCT INFORMATION:

Ecotoxicology Assessment

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life.

Further information on ecology

Hazardous to the ozone layer Regulation

: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

INGREDIENTS:

Ecotoxicology Assessment

Component: Sulphuric acid

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Additional ecological information

: Lower the pH.
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life.

Test result

Component: Sulphuric acid

Ecotoxicity effects

Toxicity to fish : LC50: 42 mg/l
Exposure time: 96 h
Species: Gambusia affinis (Mosquito fish)
Literature data.

Toxicity to daphnia and other aquatic invertebrates : EC50: 29 mg/l
Exposure time: 24 h
Species: Daphnia magna (Water flea)

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Literature data.

Toxicity to algae : ErC50: > 100 mg/l
Exposure time: 72 h
Species: Desmodesmus subspicatus (green algae)
Method: OECD Test Guideline 201
Literature data.

Elimination information (persistence and degradability)

Bioaccumulation : Does not bioaccumulate.
Mobility : Can be leached out from soil.
Biodegradability : Result: Not applicable

Further information on ecology

Biochemical Oxygen Demand (BOD) : No data available

13. DISPOSAL CONSIDERATIONS

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Hazardous waste
Dispose of contents/container in accordance with local regulation.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.

14. TRANSPORT INFORMATION

International Regulation

IATA-DGR

UN/ID No. : UN 1830
Proper shipping name : Sulphuric acid
Class : 8
Packing group : II
Labels : 8
Packing instruction (cargo aircraft) : 855
Packing instruction (passenger aircraft) : 851
Packing instruction (LQ) : Y840
Environmentally hazardous : no

IMDG-Code

UN number : UN 1830
Proper shipping name : SULPHURIC ACID
Class : 8
Packing group : II

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Labels : 8
EmS Code : F-A, S-B
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number : UN 1830
Proper shipping name : Sulfuric acid
Class : 8
Packing group : II
Labels : 8
ERG Code : 137
Marine pollutant : no
Reportable Quantity : This product contains the following substance(s) which are environmentally hazardous per 49 CFR 172.101, Appendix A: (Sulfuric acid)

15. REGULATORY INFORMATION

Notification status

CH INV : YES. On the inventory, or in compliance with the inventory
TSCA : YES. All chemical substances in this product are either listed on the TSCA Inventory or in compliance with a TSCA Inventory exemption.
DSL : YES. All components of this product are on the Canadian DSL.
AICS : YES. On the inventory, or in compliance with the inventory
NZIoC : NO. On the inventory, or in compliance with the inventory
ENCs : YES. On the inventory, or in compliance with the inventory
ISHL : YES. On the inventory, or in compliance with the inventory
KECI : YES. On the inventory, or in compliance with the inventory
PICCS : YES. On the inventory, or in compliance with the inventory
IECSC : YES. On the inventory, or in compliance with the inventory

For explanation of abbreviations, see section 16.

TSCA list : Not relevant
OSHA Hazards : Carcinogen, Corrosive to skin

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)
Sulphuric acid	7664-93-9	1000 lbs

SARA 304 Extremely Hazardous Substances Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)
Sulphuric acid	7664-93-9	1000 lbs

SARA 311/312 Hazards : Chronic Health Hazard
Acute Health Hazard

SARA 302 : The following components are subject to reporting levels established by SARA Title III, Section 302:
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SARA 313

: The following components are subject to reporting levels established by SARA Title III, Section 313:
Sulphuric acid 7664-93-9

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals subject to disclosure and listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Sulphuric acid 7664-93-9

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Sulphuric acid 7664-93-9

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer.
Sulphuric acid 7664-93-9

16. OTHER INFORMATION

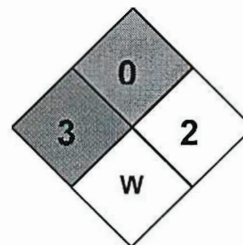
Full text of H-Statements

H314 : Causes severe skin burns and eye damage.
H318 : Causes serious eye damage.
H402 : Harmful to aquatic life.

Further information

HMIS Classification : Health Hazard: 3
Flammability: 0
Physical hazards: 2

NFPA Classification : Health Hazard: 3
Fire Hazard: 0
Reactivity Hazard: 2
Specific hazards: W



Notification status explanation

REACH 1907/2006 (EU)
CH INV Switzerland. New notified substances and declared preparations

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TSCA	United States TSCA Inventory
DSL	Canadian Domestic Substances List (DSL)
AICS	Australia Inventory of Chemical Substances (AICS)
NZIoC	New Zealand. Inventory of Chemical Substances
ENCS	Japan. ENCS - Existing and New Chemical Substances Inventory
ISHL	Japan. ISHL - Inventory of Chemical Substances
KECI	Korea. Korean Existing Chemicals Inventory (KECI)
PICCS	Philippines Inventory of Chemicals and Chemical Substances (PICCS)
IECSC	China. Inventory of Existing Chemical Substances in China (IECSC)

Further information

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see user defined free text

The information in this material safety data sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. The user must determine the appropriate measures that need to be implemented for the use and handling of this product in the context of the user's operations and use of this product. The information contained herein supersedes all previously issued bulletins on the subject matter covered. If the date on this document is more than three years old, call to make certain that this sheet is current. No warranty is made as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. User must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes, including mixing with other products. Nothing contained herein shall be construed as granting or extending any license under any patent.

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.