

AquaSource Acetic Acid, 56%

Version Revision Date:
3.1 04/21/2019

Date of last issue: 04/21/2019
Date of first issue: 09/16/2018

SECTION 1. IDENTIFICATION

Product name : AquaSource Acetic Acid, 56%

Product code : AQ Acetic Acid 56%

Manufacturer or supplier's details

Company name of supplier : Blue Ridge Elements, LLC

Address : 3730 Old Tasso Rd NE
Cleveland, TN 37312

Telephone : (423) 693-0803

Emergency telephone number : CHEMTREC: +1-800-424-9300, +1-703-527-3887 CCN7321

Recommended use of the chemical and restrictions on use

Recommended use : Solvent

Restrictions on use : None known.

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Flammable liquids : Category 4

Skin corrosion : Category 1A

Serious eye damage : Category 1

GHS Label element

Hazard pictograms :



Signal word : Danger

Hazard statements : H227 Combustible liquid.
H314 Causes severe skin burns and eye damage.

Precautionary statements : **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces.
No smoking.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/
face protection.
Response:

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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 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310 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.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components

Chemical Name	CAS-No.	Concentration (% w/w)
acetic acid	64-19-7	50 - 80
Water	7732-18-5	20 - 50

SECTION 4. FIRST AID MEASURES

If inhaled : Move to fresh air.
Treat symptomatically.
If symptoms persist, call a physician.

In case of skin contact : Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Call a physician or poison control centre immediately.
Wash contaminated clothing before reuse.
Destroy or thoroughly clean contaminated shoes.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
Call a physician or poison control centre immediately.

If swallowed : Seek medical advice.

Most important symptoms and effects, both acute and : Irritating to eyes, respiratory system and skin.
None known.

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delayed : Causes serious eye damage.
Causes severe burns.

Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use water spray to extinguish.
Dry chemical
Carbon dioxide (CO₂)
Alcohol-resistant foam

Unsuitable extinguishing media : None known.

Hazardous combustion products : No hazardous combustion products are known

Further information : Flammable liquid and vapour.

Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Wear appropriate personal protective equipment.

Environmental precautions : Avoid release to the environment.

Methods and materials for containment and cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Do not get in eyes or mouth or on skin.
Do not taste or swallow.
Use only with adequate ventilation.
Wash thoroughly after handling.

Conditions for safe storage : Keep container tightly closed and in a well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

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Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
acetic acid	64-19-7	TWA	10 ppm	ACGIH
		STEL	15 ppm	ACGIH
		TWA	10 ppm 25 mg/m ³	NIOSH REL
		ST	15 ppm 37 mg/m ³	NIOSH REL
		TWA	10 ppm 25 mg/m ³	OSHA Z-1
		TWA	10 ppm 25 mg/m ³	OSHA P0

Engineering measures : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Respiratory protection : If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Hand protection

Remarks : Wear suitable gloves.

Eye protection : Safety goggles

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : colourless

Odour : pungent

pH : 2.4, Concentration: 60 g/l

Melting point/freezing point : 16.64 °C

Boiling point/boiling range : 117.9 °C

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Flash point	: > 60 °C
Flammability (solid, gas)	: Not applicable
Upper explosion limit	: 19.9 %(V)
Lower explosion limit	: 4 %(V)
Vapour pressure	: 20.79 hPa (25 °C)
Relative vapour density	: 2.1
Relative density	: 1.0446 (25 °C)
Solubility(ies) Water solubility	: 602.9 g/l (25 °C)
Partition coefficient: n- octanol/water	: log Pow: -0.17 (20 °C)
Decomposition temperature	: Thermal stability not tested. Low stability hazard expected at normal operating temperatures.
Viscosity Viscosity, dynamic	: 1.056 mPa.s (25 °C)
Viscosity, kinematic	: 1.011 mm ² /s
Explosive properties	: Classification Code: Not classified
Oxidizing properties	: Not classified
Surface tension	: Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: None known.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Carbon dioxide (CO ₂) Carbon monoxide

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SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Components:

acetic acid:

Acute oral toxicity : LD50 Oral (Rat): 3,320 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 16000 ppm
Exposure time: 4 h

Acute dermal toxicity : LD50 Dermal (Rabbit): 1,060 mg/kg

Skin corrosion/irritation

Causes severe burns.

Components:

acetic acid:

Species: Rabbit

Exposure time: 24 h

Result: Corrosive

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

acetic acid:

Species: Rabbit

Result: Corrosive

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Components:

acetic acid:

Remarks: There is no data available to indicate sensitizing potential for this substance.

Germ cell mutagenicity

Not classified based on available information.

Components:

acetic acid:

Genotoxicity in vitro : Test Type: Salmonella typhimurium assay (Ames test)
Metabolic activation: +/- activation
Method: Bacterial Reverse Mutation Assay
Result: negative

: Test Type: Chromosome aberration test in vitro

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Metabolic activation: +/- activation
Method: In vitro Mammalian Chromosome Aberration Test
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Rat
Application Route: inhalation (vapour)
Result: negative
Remarks: Read-across from a similar material

Carcinogenicity

Not classified based on available information.

Product:

Remarks: This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

IARC

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

NTP

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.

Reproductive toxicity

Not classified based on available information.

Components:

acetic acid:

Effects on fertility :

Remarks: There is no evidence to indicate potential for adverse reproductive effects in humans.

Effects on foetal development :

Species: Rat
Application Route: Ingestion
345 mg/kg

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

acetic acid:

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Species: Rat
NOAEL: 290 mg/kg
Application Route: Oral Study

Species: Rat
NOAEL: 30 mg/kg
Application Route: Dermal Study

Aspiration toxicity

Not classified based on available information.

Experience with human exposure

Product:

Inhalation : Remarks: None known.
Skin contact : Remarks: Causes severe skin burns.
Eye contact : Remarks: Causes serious eye damage.
Ingestion : Remarks: None known.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

acetic acid:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 300.82 mg/l
Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates : EC50 (daphnid): > 300.82 mg/l
Exposure time: 48 h
Toxicity to algae : EC50 (Chlorella pyrenoidosa (aglae)): 300.82 mg/l
Exposure time: 72 h

Persistence and degradability

Components:

acetic acid:

Biodegradability : Result: Readily biodegradable
Biodegradation: 96 %
Exposure time: 20 d
Biochemical Oxygen Demand (BOD) : BOD-5:
340 - 880 mg/g
BOD-20:
900 mg/g

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Chemical Oxygen Demand (COD) : 1,030 mg/g

Bioaccumulative potential

Components:

acetic acid:

Bioaccumulation : Bioconcentration factor (BCF): 3.16

Partition coefficient: n-octanol/water : Pow: 0.49
log Pow: -0.31

Mobility in soil

Components:

acetic acid:

Distribution among environmental compartments : log Koc: 0.062
Method: QSAR model

Other adverse effects

Product:

Ozone-Depletion Potential : 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).

Components:

acetic acid:

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulation

IATA-DGR

UN/ID No. : UN 2790
Proper shipping name : Acetic acid solution

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Class : 8
Packing group : II
Labels : Corrosive
Packing instruction (cargo aircraft) : 855
Packing instruction (passenger aircraft) : 851

IMDG-Code

UN number : UN 2790
Proper shipping name : ACETIC ACID SOLUTION, ACETIC ACID, SOLUTION

Class : 8
Packing group : II
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.

National Regulations

49 CFR

UN/ID/NA number : UN 2790
Proper shipping name : ACETIC ACID SOLUTION

Class : 8
Packing group : II
Labels : Class 8 - Corrosive
ERG Code : 153
Marine pollutant : no

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

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).

The components of this product are reported in the following inventories:

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TSCA	: On TSCA Inventory
DSL	: All components of this product are on the Canadian DSL
AICS	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

(Q)SAR - (Quantitative) Structure Activity Relationship; ASTM - American Society for the Testing of Materials; bw - Body weight; DIN - Standard of the German Institute for Standardisation; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; DOT - Department of Transportation; EHS - Extremely Hazardous Substance; HMIS - Hazardous Materials Identification System; MSHA - Mine Safety and Health Administration; NFPA - National Fire Protection Association; RCRA - Resource Conservation and Recovery Act; RQ - Reportable Quantity; SARA - Superfund Amendments and Reauthorization Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice; ERG - Emergency

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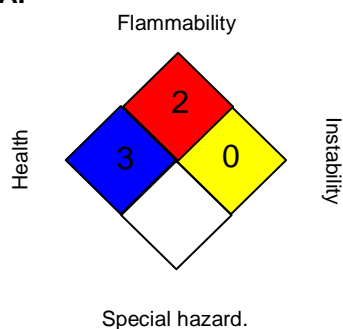
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Response Guide; NTP - National Toxicology Program; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods

Further information

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	2
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 04/21/2016

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.

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