

SAFETY DATA SHEET

SULFURIC ACID, 1%, AQUEOUS

Section 1 - Chemical Product and Company Identification

SDS Name: SULFURIC ACID, 1%, AQUEOUS

Catalog Numbers: SO-451

Company Identification: ROWLEY BIOCHEMICAL
10 ELECTRONICS AVENUE
DANVERS, MA 01923

for information, call: 978-739-4883

Emergency Number: 800-424-9300

For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

HEALTH HAZARDS

H302-Acute Oral Toxicity: 4
H312-Acute Dermal Toxicity: 4
H332-Acute Inhalation Toxicity: 5
H316-Skin Corrosion/Skin Irritation: 3
H320-Eye damage/Irritation: 2B
H341-Germ Cell Mutagenicity: 2
H350-Carcnogenicity: 1B
H361-Reproductive Toxicity: 2
H373-Specific Target Organ toxicity: 2

PHYSICAL HAZARDS

H290-Corrosive to Metals: 1

ENVIRONMENTAL HAZARDS

Aquatic acute environmental Hazards: Not classified

Chronic environmental Hazards: Not classified

Pictograms or Hazard symbols and Hazard statement.



**Warning: Harmful if swallowed.
Harmful in contact with skin.
Harmful if inhaled.**



**Warning: Causes mild skin irritation.
Causes eye irritation.**



**Warning: Suspected of causing genetic defects.
May Cause Cancer.
Suspected of damaging fertility or the unborn child
< Developmental abnormalities (musculoskeletal)>
May cause damage to organs < kidneys, lungs, heart,
cardiovascular system, upper respiratory tract, eyes, and teeth.> through
prolonged or repeated exposure:**

Precautionary Statement

H302

P264 Wash thoroughly after handling.

P270 Do not eat, drink, or smoke when using this product.

P301 + P312 If swallowed, call a physician if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

P330 Rinse mouth.

H312

P280 Wear protective gloves, clothing, and eye and face protection.

P302 + P352 If on skin, wash with plenty of soap and water.

P312 Call a physician if you feel unwell

P361 + P363 Take off immediately all contaminated clothing and wash it before reuse.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

H332

P261 Avoid breathing fumes/mist/vapors.

P304 + P340 If inhaled, remove person to fresh air and keep comfortable for breathing.

1 Use only outdoors or in a well-ventilated area.

P312 Call a physician if you feel unwell.

H316

P332 + P313 If skin irritation occurs, get medical advice/attention.

H320

P264 Wash thoroughly after handling.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

H341+H361

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P281 Use personal protective equipment as required.

P308 + P313 If exposed or concerned, get medical advice/attention.

P405 Store locked up.

H350

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understand.

P281 Use personal protective equipment as required.

P308 + P313 If exposed or concerned: Get medical advice/attention.

P405 Store locked up

H373

P260 Do not breathe fume/gas/mist/vapors.

P314 Get medical advice/attention if you feel unwell.

H272

P210 Keep away from heat, flames, and hot surfaces. No smoking.

P220 Store away from combustible materials. Incompatible with: reducing agents, easily oxidized materials, organic materials and metal powders.

P221 Take any precaution to avoid mixing with combustibles.

P370 + P378 In case of fire (see section 5)

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
7664-93-9	Sulfuric Acid	1.0 v/v
7732-18-5	Water	99 v/v

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

Oral Exposure: If Swallowing seek immediate medical advice.

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Section 5 - Fire Fighting Measures

Firefighters should wear proper protective clothing and self-contained breathing apparatus with full piece operated in positive pressure mode to prevent contact with skin and eyes.

Extinguishing Media: Use water spray, dry chemical powder, or appropriate foam.

Flash Point: N/A

NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear protective gear.

Methods for Cleaning up: Absorb with sand, earth or vermiculite. Carefully sweep up and containerize for proper disposal.

Section 7 - Handling and Storage

Use care when handling. Wash thoroughly after handling. Store capped at room temperature. Keep away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: Clear

Odor: vinegar-like.

pH: 2.38-2.58

Vapor Pressure: N/A

Vapor Density: 1.05

Evaporation Rate: N/A

Viscosity: N/A

Boiling Point: 118 C

Solubility: Infinitely soluble

Section 10 - Stability and Reactivity

Chemical Stability: Stable under ordinary conditions of use and storage. Heat and sunlight can contribute to instability.

Conditions to Avoid: Heat, freezing.

Incompatibilities with Other Materials: Chromic Acid, ethylene glycol, perchloric acid, phosphorous trichloride, oxidizers, sodium peroxide, strong caustics, most metals (except aluminum), carbonates, hydroxides, oxides, and phosphates.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

LD50/LC50:

CAS# 7664-93-9:

Oral rat LD50: 2140 mg/kg.

VAPOR LC50: 320 mg/m³ 2 hrs. [Mouse]

Carcinogenicity:

CAS# 7664-93-9: Classified 1 (Proven for human.) by IARC, + (proven) by OSHA. Classified A2 (Suspected for human.) by ACGIH.

May damage following organs: kidneys, lungs, heart, cardiovascular system, upper respiratory tract, eyes, teeth.

Mutagenicity: Cytogenetic Analysis: Hamster, ovary = 4mmol/L

Reproductive Effects: May cause adverse reproductive effects based on animal data.

Developmental abnormalities (musculoskeletal) in rabbits at a dose of 20 mg/m³ for 7 hrs. (RTECS)

Teratogenicity: neither embryotoxic, fetotoxic, nor teratogenic in mice or rabbits at inhaled doses producing some material toxicity.

Section 12 - Ecological Information

Ecotoxicity:

CAS# 7664-93-9. This material is expected to be slightly toxic to aquatic life. The LC50/96-hour values for fish are between 10 and 100 mg/l.

Environmental: When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals.

Physical: No information available.

Other: No information available.

Section 13 - Disposal Considerations

Appropriate method of disposal of substance or preparation:

Handled as hazardous waste and sent to an RCRA approved incinerator or disposed in an RCRA approved wasted facility.

Section 14 – Transport Information

DOT

Non-Regulated

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

European/International Regulations

European Labeling in Accordance with EC Directives

Risk Phrases:

R22 Harmful by inhalation, in contact with skin and if swallowed
R36/38 Irritating to eyes and skin
R37 Irritating to respiratory system.
R38 Irritating to skin.

Safety Phrases:

S20/21 When using do not eat, drink or smoke
S2 Keep out of the reach of children.
S 7 Keep container tightly closed.
S 9 Keep container in a well-ventilated place

Section 16 - Additional Information

MSDS Creation Date: 10/15/12

Revision #1. 11/14/14 YM

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