

Material Safety Data Sheet

J. R. Simplot Company

AgriBusiness

M16021

Trade Name: Sulfuric Acid Desiccant
Registration No: 8917-18

SECTION 1

CHEMICAL PRODUCT AND COMPANY INFORMATION

Manufacturer or Formulator: J.R. Simplot Company
P.O. Box 912
Pocatello, ID 83204

Product Name: Sulfuric Acid Desiccant
Common Name: Sulfuric Acid, Oil of Vitriol
Chemical Type: Inorganic Acid

Emergency Phone - Chemtrec: 1-800-424-9300

SECTION 2

COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name and Synonyms	C.A.S. No.	Chemical Formula	WT% Hazardous	TLV	PEL
Sulfuric Acid	7664-93-9	H ₂ SO ₄	93.5	1 mg/M ³	1 mg/M ³ 8 Hr TWA
Water	7732-18-5	H ₂ O	6.5 Non-hazardous	Not listed	Not listed

SECTION 3

HAZARDS IDENTIFICATION

Ingestion: Moderately toxic. Corrosive to the mouth, throat and stomach. May cause gastrointestinal disturbances. Symptoms may include salivation, irritation, throat burns, nausea, abdominal pains, vomiting and diarrhea.

Inhalation: Highly toxic. May cause respiratory tract irritation, throat burns, constriction of the windpipe, severe pulmonary edema and death. May also cause inflammation of the stomach, bronchitis, and tooth erosion. Exposure may cause symptoms similar to those listed under "Ingestion."

Eye Contact: Extremely irritating and corrosive. Direct contact may cause conjunctivitis, corneal ulceration and permanent injury.

Skin Absorption: May destroy the epidermis and penetrate some distance into the skin and subcutaneous tissues and cause necrosis. Ulceration of the skin.

Skin Contact: May cause irritation or burns on skin. Prolonged contact may cause severe, deep burns to tissue; very corrosive effects. May cause dermatitis, ulceration. Burns may not become symptomatic for several hours after contact.

Effects of Overdose: LOCAL: Conjunctivitis, corneal necrosis, dermatitis, skin burns, ulceration. RESPIRATORY: Irritation of the nose and throat, laryngeal edema, bronchitis, pneumonia, pulmonary edema. GASTROINTESTINAL: Dental erosion, shock, anuria, burning in mouth, throat and abdomen; nausea, vomiting of blood and eroded tissue, perforation of gastrointestinal tract, albumin, blood and casts in urine.

SECTION 4

FIRST AID MEASURES

Emergency and First Aid Procedures: Treatment is symptomatic and no specific antidotes are known.

Ingestion: Rinse mouth with large amounts of water DO NOT INDUCE VOMITING. Drink large quantities of milk mixed with egg whites or if this is not available, water. Do not give anything by mouth to an unconscious person.

Inhalation: Remove person from exposure area to fresh air and support breathing. Seek immediate medical attention.

Eyes: IMMEDIATELY flush eyes with fresh running water for 15-20 minutes. Do not wait for symptoms to develop. Get medical attention immediately.

Skin: Give continuous flow of water to wash material off body. Remove contaminated clothing (under a shower if possible) and subject patient to deluge-type shower, if possible. Treat for shock. Prompt medical consultation is essential.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage. Avoid alcohol. *Inhalation* - Patient should be observed for latent pulmonary edema for at least 30 hours.

SECTION 5

FIRE FIGHTING MEASURES

Extinguishing Media: Fires involving small amounts of combustibles may be smothered with suitable dry chemicals. Use water on combustibles in vicinity of this material but use care, as water applied directly to their acid results in evolution of heat and causes splattering.

Special Fire Fighting Procedures: Avoid any contact with acid. Wear full protective rubber clothing, gloves, boots, wear self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Not flammable but highly reactive and can cause ignition by contact with combustible materials. Reacts violently with water and organics. May release explosive hydrogen gas inside storage tanks, drums, tank cars, and tank trucks. This is a very powerful acidic oxidizer which can ignite or even explode on contact with many materials; i.e., acetic acid, acetone cyanhydrin, (acetone + HNO₃), (acetone + K₂Cr₂O₇), acetonitrile, acrolein, acrylonitrile, (acrylonitrile + H₂O), (alcohols + H₂O₂), allyl alcohol, allyl chloride, NH₄OH, 2-amino ethanol, NH₄ triperchromate, aniline, (bromates + metals, BrF₅, n-butylaldehyde, carbides, CoHC₂, chlorates, (metals + chlorates), ClF₃, chlorosulfonic acid, Cu₃N, diisobutylene, (dimethyl benzylcarbinol + H₂O₂), epichlorohydrin, ethylene cyanhydrin, ethylene diamine, ethylene glycol, ethylene imine, fulminates, HCl, H₂, IF₇ (indene + HNO₃ + glycerides, p-nitroluene, perchlorates, HClO₄, (C₆H₆ + permanganates), pentasilver trihydroxydiamino phosphate, (l-phenyl-2-methyl propyl alcohol + H₂O₂), P, P(OCN)₃, picrates, potassium-tert-butoxide, KClO₃, KMnO₄, (KMnO₄ + KCl), KMnO₄ + H₂O) beta-propiolactone, RbHC₂, propylene oxide, pyridine, NA, Na₂CO₃, NaOH, steel, styrene monomer, water, vinyl acetate, (HNO₃ + toluene).

SECTION 6

ACCIDENTAL RELEASE MEASURES

Environmental Precautions: No information available; however, Sulfuric Acid has a reportable quantity of 1000 lbs. and, in the event of an accidental release, should be kept out of all watercourses and bodies of water. Do not contaminate any watercourse or body of water by direct application, cleaning of equipment or disposal.

Steps to be taken in case material is released or spilled:
Treat with extreme caution. Zone off contaminated area. Dike area with sand or earth. Acid may be neutralized with soda ash or lime. Neutralization or dilution of strong Sulfuric Acid will **ALWAYS** be accompanied by a very strong chemical reaction with release of heat and possible splattering of the acid. Organic or combustible materials such as sawdust or rags should never be used to soak up spills. Wear full protective clothing (acid protective slicker suit).

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SECTION 15

REGULATORY INFORMATION

Carcinogenicity: by IARC?: Yes () No (X) by NTP?: Yes () No (X)

IARC evaluates occupational exposures to strong, inorganic-acid mists containing Sulfuric Acid in "Group 1", as having carcinogenic potential. However, SULFURIC ACID ITSELF WAS NOT CLASSIFIED AS A GROUP I CARCINOGEN.

This product contains sulfuric acid, CAS No. 7664-93-9, which is subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

SECTION 16

OTHER INFORMATION

Flash Point (Test Method):	Not applicable	Flammable Limits	LOWER	UPPER
Autoignition Temperature:	Not applicable	(% BY VOLUME)	N/A	N/A

Hazard Rating (N.F.P.A.): Health: 3 Fire: 0 Reactivity: 2 Specific: Use no water

This N.F.P.A. rating is a recommendation by the manufacturer using the guidelines or published evaluations prepared by the National Fire Protection Association (N.F.P.A.).

FIREFIGHTING TECHNIQUE

Concentrated vapors of Sulfuric Acid are extremely irritating to the respiratory tract and may cause breathing difficulty. Prevent human exposure to fire, smoke, fumes, or products of combustion. Evacuate nonessential personnel from the fire area. Maintain a safe distance from the fire and storage area because excessive heat may cause tank to rupture. Wear full face, self-contained breathing apparatus and impervious clothing (such as gloves, hood, suits, and rubber boots). Use water spray, dry chemical, foam, carbon dioxide, or halogenated extinguishing agents. If the tank is not leaking, keep cooled using a fog spray nozzle to minimize the reactivity of the water and acid. Under no circumstance should water or other liquid be introduced into acid tanks. Take care not to ignite hydrogen gas which can accumulate inside metal tanks containing acid.

SPECIAL HANDLING

Make sure all personnel involved in the spill cleanup follow good industrial hygiene practices.

A small spill can be handled routinely. Use adequate ventilation or wear an air-supplied respirator to prevent inhalation contact. Wear suitable protective clothing to prevent skin and eye contact. Use the following procedures:

Any leak occurring in pipelines or equipment should be considered an acid leak and treated with extreme caution until the leak is proven not to be an acid leak.

All contaminated areas should be immediately zoned off to avoid personnel exposure to the acid spray or stream.

Adjust all appropriate valves to isolate the system and stop further leakage.

Soda ash or lime should be spread around to neutralize any remaining acidity on the surface of the ground or concrete pad. The contaminated area should be covered with sand or gravel, and acidity neutralized with soda ash or lime.

Sulfuric Acid leaks, spills or drainings must not come in contact with any acid soluble sulfide wastes (such as in sewers) because of danger of evolving hydrogen sulfide gas.

Large spills should be handled according to the predetermined plan. Part of this plan should include Section V, FIRE FIGHTING MEASURES.

CORROSIVITY TO MATERIALS OF CONSTRUCTION

Weaker strengths of Sulfuric Acid, particularly concentrations below 60° Baume, are highly corrosive to most metals with evolution of hydrogen gas.

STORAGE REQUIREMENTS

The following safety facilities should be readily accessible in all areas where Sulfuric Acid is handled or stored.

SAFETY SHOWERS--with quick opening valves which stay open. Water should be supplied through insulated lines to prevent freeze-ups in cold weather. EYEWASH FOUNTAIN--or other means of washing the eyes with a gentle flow of tap water.

Sulfuric Acid may be safely stored in properly designed bulk storage tanks.

DISPOSAL OF UNUSED MATERIAL

Sulfuric Acid that cannot be used or chemically reprocessed should be disposed of in such a manner that will not adversely affect the environment.

MSDS Version Number: 4 (revisions to Section 11)

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Reviewed by: The Department of Regulatory Affairs
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