



Safety Data Sheet

Spent Acid

SECTION 1 IDENTIFICATION

Product Name: Spent Acid

Synonyms: Sulfuric Acid – Spent, Sulfuric Acid, Oil of Vitriol, Vitriol Brown Oil

SDS #: W1

Product Use: Waste Disposal or Recycling

Restrictions on Use: Use only as directed

Manufacturer:

Sinclair Oil Company
P.O. Box 30825
Salt Lake City, Utah 84130

Telephone: **General Information:** (801) 524-2777 **Fax:** (801) 524-2740

Contact person: Jeremiah Webster

Emergency Telephone: 800-424-9300 (CHEMTREC) or (703) 527-3887

SDS Date of Preparation: March 20, 2015

SECTION 2 HAZARDS IDENTIFICATION

Classification:

Physical	Health
Not Hazardous	Skin Corrosion Category 1A Skin Sensitization Category 1 Eye Corrosion Category 1 Carcinogen Category 1B Germ Cell Mutagenicity Category 1B

Label Elements:

Danger!



Hazard Phrases:

Causes severe skin burns and eye damage.

Precautionary Phrases:

Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe mists or spray.
Wash thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves, protective clothing, eye protection and face protection.

Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Immediately call a POISON CENTER or doctor.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with soap and water.
Wash contaminated clothing before reuse.
Immediately call a POISON CENTER or doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Immediately call a POISON CENTER or doctor.
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.
IF exposed or concerned: Get medical attention.

Storage and Disposal

Store locked up.
Dispose of contents and container in accordance with local and national regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Sulfuric Acid	7664-93-9	85-92%
Hydrocarbons, Catalytic Alkylation By-Products C12-20	689191-17-5	0-2%
Diethyl Sulfate	64-67-5	0-0.3%
Dimethyl Sulfate	77-78-1	0-0.3%

SECTION 4 EMERGENCY and FIRST AID PROCEDURES

Eye: Immediately flush eyes with plenty of water for at least 20 minutes while holding the eyelids apart. Get immediate medical attention.

Skin: Immediately flush skin with plenty of water for 30 minutes while removing contaminated clothing and shoes. Get immediate medical attention. Launder clothing before re-use. (Discard contaminated shoes).

Ingestion: If conscious, rinse mouth with water. Do NOT induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

Inhalation: Immediately remove victim to fresh air. If breathing is difficult, oxygen should be administered by qualified personnel. If breathing has stopped, administer artificial respiration. Get immediate medical attention.

Most important symptoms/effects, acute and delayed: Causes severe eye and skin irritation and burns. May cause an allergic skin reaction. Inhalation of mists may cause mucous membrane and respiratory irritation and burns with possible pulmonary edema. Ingestion may be fatal. May cause cancer. May cause genetic defects based on animal data.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention is required for all routes of exposures.

SECTION 5 FIRE and EXPLOSION HAZARD DATA

Suitable extinguishing media: Use media appropriate for surrounding fire. Cool fire exposed containers and structures with water.

Specific hazards arising from the chemical: Hot material may react violently with water. Sulfuric acid may react with most metals, especially when dilute, to produce extremely flammable and potentially explosive hydrogen gas which can form explosive mixtures with air. Contact between sulfuric acid and water may generate large amounts of heat. Combustion may produce carbon and sulfur oxides. Thermal decomposition may release sulfur dioxide at extremely high temperatures.

Special protective equipment and precautions for fire-fighters: Firefighters should wear full emergency equipment and a NIOSH approved positive pressure self-contained breathing apparatus. Contain water used in firefighting from entering sewers or natural waterways. Runoff from fire control may cause pollution. Neutralize runoff with lime, soda ash, etc. Cool fire exposed containers with water spray.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Evacuate spill area and keep unprotected personnel away. Prevent contact with eyes, skin and clothing. Ventilate area. Wear appropriate protective clothing. Keep away from heat, flames and high temperatures.

Environmental hazards: Avoid release into the environment. Report spill as required by local and federal regulations.

Methods and materials for containment and cleaning up: Contain and collect free liquid where possible. Dike large spills, and cautiously dilute and neutralize with lime or soda ash and collect using an inert absorbent material and place in appropriate containers for disposal. Prevent spill from entering sewers and water courses.

SECTION 7 HANDLING and STORAGE

Precautions for safe handling: Prevent contact with eyes, skin and clothing. Do not breathe vapors or mists. Wear protective clothing and equipment. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.

Do not reuse containers. Empty containers retain product residues which can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well-ventilated area away from heat and other incompatible materials. Keep container tightly closed. Protect from physical damage.

SECTION 8 EXPOSURE CONTROLS and PERSONAL PROTECTION

Exposure Guidelines:

INGREDIENTS	EXPOSURE LIMITS
Sulfuric Acid	0.2 mg/m ³ TWA ACGIH TLV (Thoracic fraction) 1 mg/m ³ TWA OSHA PEL
Hydrocarbons, Catalytic Alkylation By-Products C12-20	None Established
Diethyl Sulfate	None Established
Dimethyl Sulfate	10 ppm TWA ACGIH TLV

Appropriate engineering controls: Use with local exhaust ventilation to maintain exposures below the occupational exposure limits.

Respiratory protection: If exposures are exceeded, a NIOSH approved respirator with dust/mist cartridges or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

Skin protection: Impervious gloves as butyl rubber, PVC or neoprene recommended to prevent skin contact.

Eye protection: Chemical safety goggles and face shield should be worn where splashing is possible.

Other: Impervious coveralls, apron and boots is required to prevent skin contact and contamination of personal clothing. A safety shower and eye wash should be available in the immediate work area.

SECTION 9 PHYSICAL and CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Cloudy to light brown liquid.

Odor: Sharp burning odor.

Odor threshold: 0.15 ppm (sulfuric acid)	pH: <1
Melting point/Pourpoint: -Not available	Boiling Point: --500° F (~260°C)
Flash point: None	Evaporation rate: Not available
Flammability (solid, gas): Not applicable	
Flammable limits: LEL: Not applicable	UEL: Not applicable
Vapor pressure: <1 mmHg @ 20°C	Vapor density: >1
Relative density: ~1.8	Solubility: Insoluble in water
Partition coefficient: n-ctanol/water: Not available	Auto-ignition temperature: >475°F (>246°C)
Decomposition temperature: Not available	Viscosity: Not available

SECTION 10 STABILITY and REACTIVITY

Reactivity: This product is not expected to be reactive.

Chemical stability: The product is stable, but reacts violently with water and organic materials with evolution of heat.

Possibility of hazardous reactions: Vigorous reactions occur when in contact with incompatible materials.

Conditions to avoid: Keep away from excessive heat.

Incompatible materials: Avoid contact with water, alkaline solutions, nitrates, metals, metal powder, and strong oxidizing agents. Hazardous gases are created when in contact with cyanides, sulfides and carbides.

Hazardous decomposition products: Thermal decomposition may yield carbon, nitrogen and sulfur oxides.

SECTION 11 TOXICOLOGICAL INFORMATION

Health Hazards:

Inhalation: Inhalation of vapors or mists may cause severe irritation and burns of the nose, throat and upper respiratory tract. Prolonged or repeated exposure may result in impaired lung function and possible discoloration and erosion of teeth.

Skin Contact: May cause severe irritation or burns with redness, ulceration, rash and pain. May cause an allergic skin reaction.

Eye Contact: May cause severe eye irritation and burns with pain, tearing and blurred vision. Permanent damage may occur.

Ingestion: Ingestion may cause severe burns to the mucous membranes of the mouth and esophagus. Ingestion may be fatal.

Chronic Effects of Overexposure: None known.

Mutagenicity: Dimethyl sulfate was positive in an AMES test, an in vitro mammalian chromosome aberration test and in an in vivo chromosome aberration assay.

Reproductive Toxicity: None of the components have been shown to cause adverse reproductive or developmental effects.

Carcinogenicity: Diethyl sulfate is listed by IARC as "Probably Carcinogenic to Humans", Group 2A and as "Reasonably Anticipated to be a Human Carcinogen" by NTP. Dimethyl sulfate is listed by IARC as "Probably Carcinogenic to Humans", Group 2A, "Reasonably Anticipated to be a Human Carcinogen" by NTP and as a "Confirmed Animal Carcinogen with Unknown Relevance to Humans", A3 by ACGIH. None of the other components are listed as a carcinogen by IARC, NTP, OSHA or ACGIH.

Acute Toxicity Values: Acute Toxicity Estimate: Oral >55,248 mg/kg, Inhalation >52 mg/L/4 hr
Sulfuric Acid: Oral rat LD50 2140 mg/kg; Inhalation rat LC50 0.375 mg/L/4 hr
Hydrocarbons, Catalytic Alkylation By-Products C12-20: No toxicity data available
Diethyl Sulfate: Oral rat LD50 880 mg/kg
Dimethyl Sulfate: Oral rat LD50 205 mg/kg, Inhalation rat LC50 0.1575 mg/L/4 hr

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity:

Sulfuric Acid: 96 hr LC50 16 mg/L, 48 hr EC50 daphnia magna >100 mg/L, 72 hr EC50 Desmodesmus subspicatus >100 mg/L
Hydrocarbons, Catalytic Alkylation By-Products C12-20: No data available
Diethyl Sulfate: No data available
Dimethyl Sulfate: 96 hr LC Leuciscus idus melanotus 14 mg/kg, 48 hr EC50 daphnia magna 17 mg/L, 72 hr EC50 Desmodesmus subspicatus 46.9 mg/L

Persistence and degradability: Biodegradability is not applicable to inorganic substances such as sulfuric acid,

Bioaccumulative potential: No data available

Mobility in soil: No data available

Other adverse effects: Possible harmful effects to aquatic life due to acidity.

SECTION 13 DISPOSAL INFORMATION

Waste Disposal Method: Dispose in accordance with all local, state and federal regulations.

SECTION 14 TRANSPORTATION INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	UN1832	Sulfuric acid Spent	8	PG II	No
TDG	UN1832	Sulfuric acid Spent	8	PG II	No
IMDG	UN1832	Sulfuric acid Spent	8	PG II	No
IATA	UN1832	Sulfuric acid Spent	8	PG II	No

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable.

Special precautions: None known.

SECTION 15 REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103)/RQ: This product has an RQ of 1,097 lbs (based on the RQ of Sulfuric acid of 1,000 lbs present at 92% maximum. Releases above the RQ must be reported to the National Response Center. Some states have more stringent reporting requirements. Report all spills in accordance with local, state, and federal regulations.

EPA SARA 311 Hazard Classification: Acute Health, Chronic Health

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Diethyl Sulfate	64-67-5	0.3%
Dimethyl Sulfate	77-78-1	0.3%

CALIFORNIA PROPOSITION 65: This product contains chemicals known to the State of California to cause cancer or reproductive toxicity.

Diethyl Sulfate	64-67-5	0.3%	Cancer
Dimethyl Sulfate	77-78-1	0.3%	Cancer

WHMIS CLASSIFICATION: Class B, Division 2 (Flammable Liquid), Class D, Division 2A (Very Toxic Material Causing Other Toxic Effects)

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

Canada DSL: All of the components are listed on the Canadian Domestic Substances List.

US EPA Toxic Substances Control Act: All of the components of this product are listed on the TSCA inventory.

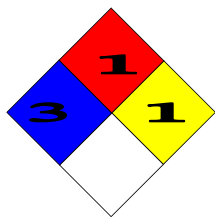
SECTION 16 OTHER INFORMATION

SDS Revision History: Converted to GHS format – all Sections revised

Date of current revision: March 20, 2015

Date of previous revision: None

National
Fire
Protection
Association
(U.S.A)



Health: 3
Flammability : 1
Instability: 1
Specific Hazard:

Disclaimer: This product material safety data sheet provides health and safety information. The product should be used in applications consistent with this product literature. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations.

This material safety data sheet is provided in good faith and meets the requirements of the hazardous communication provisions of SARA TITLE III and 29 CFR 1910.1200(g) of the OSHA regulations. The above information is based on review of available information Sinclair believes is reliable and is supplied for informational purposes only. Sinclair does not guarantee its completeness or accuracy. Since conditions of use are outside the control of Sinclair, Sinclair disclaims all warranties, express or implied, and any liability for damage or injury which results from the use of the above data. Nothing herein is intended to permit infringement of valid patents and licenses.