



# SAFETY DATA SHEET

Version 4

## 1. Identification of the Substance / Preparation and of the Company / Undertaking

**Product Name:** Sulfuric Acid 66'  
**UN/ID No** UN1830  
**Synonyms:** Oil of vitriol; Sulphuric acid  
**Recommended Use** Industrial, Manufacturing or Laboratory use.  
**Restrictions on use** None known  
**Manufacturer**  
Hawkins, Inc., 2381 Rosegate, Roseville, MN 55113 (612-331-6910)  
**Emergency Telephone:**  
CHEMTREC (US): 1-800-424-9300

## 2. Hazards Identification

### GHS - Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1
Carcinogenicity:	Category 1A
Specific target organ toxicity (single exposure)	Category 1
Corrosive to metals	Category 1

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements



### Signal Word:

**Danger**

### Hazard Statements:

- Fatal if inhaled
- Causes severe skin burns and eye damage
- May cause cancer
- Causes damage to organs
- May be corrosive to metals

### Precautionary Statements:

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Wear protective gloves/protective clothing/eye protection/face protection
- Do not breathe dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- Wear respiratory protection
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Keep only in original container

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- Wash contaminated clothing before reuse
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- Absorb spillage to prevent material damage
- Store locked up
- Store in a well-ventilated place. Keep container tightly closed
- Store in corrosive resistant aluminum container with a resistant inliner
- Dispose of contents/ container to an approved waste disposal plant

### 3. Composition / Information on Ingredients

Chemical name	CAS No.	Weight-%
Sulfuric acid	7664-93-9	77-100

Any concentration shown as a range is due to batch variation or the exact percentage has been withheld as a trade secret.

### 4. First Aid Measures

#### Description of first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. IF exposed or concerned: Get medical advice/attention.
<b>Inhalation</b>	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical advice/attention.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical advice/attention.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

#### Most important symptoms and effects, both acute and delayed

**Symptoms** Redness. Burning. May cause blindness. Coughing and/ or wheezing.

#### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

### 5. Fire-fighting Measures

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Small Fire</b>	Dry chemical or CO <sub>2</sub> . Move containers from fire area if you can do it without risk. Do not get water inside containers.
<b>Large Fire</b>	Flood area with large quantities of water, while knocking down vapors with water fog. DO NOT GET WATER INSIDE CONTAINERS.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical** The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. May react with metals or heat to release flammable hydrogen gas.

**Explosion Data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental Release Measures****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Attention! Corrosive material. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Other information**

Refer to protective measures listed in Sections 7 and 8.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Take up with inert, damp, non-combustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

**7. Handling and Storage****Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

**Incompatible materials** Strong bases. Strong acids. Oxidizing agent. Water. Organic material. Halogens. Metals. Lithium. Potassium chlorate. Sodium. Oxides. Picrates. Perchlorates. Potassium perchlorate. Potassium permanganate. Metal acetylides. Hydrides. Alkali. Reducing agent. Amines. Combustible material. Carbides. Cyanide compounds. Sulfides. Nitrate compounds.

**8. Exposure Controls / Personal Protection****Control parameters**

**Exposure Limits** The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sulfuric acid 7664-93-9	TWA: 0.2 mg/m <sup>3</sup> thoracic particulate matter	1 mg/m <sup>3</sup> TWA	IDLH: 15 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>

**Exposure Guidelines** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Appropriate engineering controls**

**Engineering controls** Showers  
Eyewash stations

Ventilation systems.

**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	Face protection shield. Tight sealing safety goggles.
<b>Hand protection</b>	Wear suitable gloves. Impervious gloves.
<b>Skin and body protection</b>	Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Boots.
<b>Respiratory protection</b>	Use appropriate respiratory protection.
<b>Environmental exposure controls</b>	Do not allow into any sewer, on the ground or into any body of water.
<b>General hygiene considerations</b>	Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product.

**9. Physical and Chemical Properties****9.1. Information on basic physical and chemical properties**

<b>Physical State:</b>	Liquid	<b>Odor:</b>	Odorless
<b>Appearance:</b>	Clear to turbid, Oily	<b>Odor Threshold:</b>	>1 mg/m <sup>3</sup>
<b>Color:</b>	Colorless to light gray		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH:</b>	<1	No information available	
<b>"Salt Out" Point (°F):</b>		No information available	
<b>Melting Point/Freezing Point:</b>	-35 °C / -31 °F		
<b>Boiling Point/Boiling Range:</b>	193 °C / 379 °F		
<b>Flash Point:</b>		No information available	
<b>Evaporation Rate (BuAc=1):</b>	< 1	No information available	
<b>Flammability (solid, gas):</b>		No information available	
<b>Flammability Limits in Air:</b>		No information available	
<b>Upper Flammability Limit:</b>		<b>Lower Flammability Limit:</b>	
<b>Vapor Pressure (mm Hg) :</b>	<0.3 @ 25 C		
<b>Vapor density (Air =1)</b>	3.4		
<b>Specific Gravity (H<sub>2</sub>O=1):</b>	1.76-1.84		
<b>Specific Gravity (2nd value):</b>			
<b>Water Solubility:</b>	Miscible in water		
<b>Solubility(ies):</b>		No information available	
<b>Partition Coefficient (n-octanol/water)</b>		No information available	
<b>Autoignition Temperature:</b>		No information available	
<b>Decomposition Temperature:</b>	340°C		
<b>Kinematic Viscosity:</b>		No information available	
<b>Dynamic Viscosity:</b>	22.5 cP		
<b>Oxidizing Properties:</b>	No information available		
<b>Explosive Properties:</b>	May react with incompatible metals to generate highly flammable and explosive hydrogen gas		

**9.2. Other information**

<b>Softening Point:</b>	No information available
<b>Molecular Weight:</b>	98.08
<b>VOC Content(%):</b>	15%
<b>Liquid Density</b>	No information available
<b>Bulk density</b>	No information available

**10. Stability and Reactivity**

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.

**Conditions to avoid  
Incompatible materials**

Exposure to air or moisture over prolonged periods. Excessive heat.  
Strong bases. Strong acids. Oxidizing agent. Water. Organic material. Halogens. Metals.  
Lithium. Potassium chlorate. Sodium. Oxides. Picrates. Perchlorates. Potassium  
perchlorate. Potassium permanganate. Metal acetylides. Hydrides. Alkali. Reducing agent.  
Amines. Combustible material. Carbides. Cyanide compounds. Sulfides. Nitrate  
compounds.

**Hazardous decomposition products** Thermal decomposition can lead to release of irritating and toxic gases and vapors. Sulfur  
oxides. Carbon dioxide (CO<sub>2</sub>). Hydrogen cyanide. Hydrogen sulfide.

**11. Toxicological Information****Information on likely routes of exposure****Product Information****Inhalation**

Specific test data for the substance or mixture is not available. Corrosive by inhalation.  
(based on components). Inhalation of corrosive fumes/gases may cause coughing, choking,  
headache, dizziness, and weakness for several hours. Pulmonary edema may occur with  
tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and  
increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs.  
Pulmonary edema can be fatal.

**Eye contact**

Specific test data for the substance or mixture is not available. Causes burns. (based on  
components). Corrosive to the eyes and may cause severe damage including blindness.  
Causes serious eye damage. May cause irreversible damage to eyes.

**Skin contact****Ingestion**

Specific test data for the substance or mixture is not available. Causes severe burns.  
Specific test data for the substance or mixture is not available. Causes burns. (based on  
components). Ingestion causes burns of the upper digestive and respiratory tracts. May  
cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark  
blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the  
mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung  
damage if swallowed. May be fatal if swallowed and enters airways.

**Symptoms related to the physical, chemical and toxicological characteristics****Symptoms**

Redness. Burning. May cause blindness. Coughing and/ or wheezing.

**Numerical measures of toxicity**

Not applicable

**Acute Toxicity:****Unknown Acute toxicity**

No information available

**Component Information**

Chemical name	Oral LD <sub>50</sub> :	Dermal LD <sub>50</sub> :	LC <sub>50</sub> (Lethal Concentration):
Sulfuric acid 7664-93-9	= 2140 mg/kg ( Rat )	-	85 - 103 mg/m <sup>3</sup> ( Rat ) 1 h

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation**

Causes severe burns.

**Serious eye damage/eye irritation**

Classification based on data available for ingredients. Causes burns. Risk of serious  
damage to eyes.

**Respiratory or skin sensitization**

No information available.

**Germ cell mutagenicity**

No information available.

**Carcinogenicity**

See section 2 for classified hazards based on component information.

Chemical name	ACGIH	IARC	NTP	OSHA
Sulfuric acid 7664-93-9	A2	1	Known	X

**ACGIH (American Conference of Governmental Industrial Hygienists)**

A2 - Suspected Human Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans

**NTP (National Toxicology Program)**

Known - Known Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Reproductive toxicity** No information available.**STOT - single exposure** Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). Causes damage to organs.**STOT - repeated exposure** No information available.**Target Organ Effects:** Eyes, Respiratory system, Skin, Teeth.**Other Adverse Effects:** No information available.**Aspiration hazard** No information available.**12. Ecological Information****Ecotoxicity** The environmental impact of this product has not been fully investigated.

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Sulfuric acid 7664-93-9	-	500: 96 h Brachydanio rerio mg/L LC50 static	-	29: 24 h Daphnia magna mg/L EC50

**Ceriodaphnia dubia Acute Toxicity Evaluation:** 93 - 100% Sulfuric Acid: 48-hour NOEC: 50 ppm, 48-hour LOEC: 100 ppm, 48-hour LC<sub>50</sub>: 70.71 ppm**Persistence and Degradability:** No information available.**Bioaccumulation:** There is no data for this product.**Other Adverse Effects:** No information available.**13. Disposal Considerations****Waste treatment methods****Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.**Contaminated packaging** Do not reuse empty containers.**14. Transport Information****DOT**

**Proper shipping name** SULFURIC ACID  
**Hazard Class** 8  
**UN/ID No** UN1830  
**Packing Group** II  
**Description** UN1830, SULFURIC ACID, 8, PG II



## 15. Regulatory Information

### International Inventories

AICS	Complies
TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies

Chemical name	AICS	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS
Sulfuric acid	Present	Present ACTIVE	Present	-	Present	-	Present	Present [23017]	Present	Present

### Inventory Legend

**AICS** - Australian Inventory of Chemical Substances  
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**RESTRICTIONS - REACH TITLE VII** No information available

### US Federal Regulations

#### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	SARA Extremely Hazardous Substances TPQ
Sulfuric acid	1000 lb	1000 lb	1000 lb TPQ

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Sulfuric acid	1.0

### SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic health hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive hazard	Yes

**U.S. State Right-to-Know Regulations****California Proposition 65:**

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65:
Sulfuric acid	Carcinogen

**16. Other Information****NSF/ANSI 60 Certification**

**Maximum Use (mg/L unless otherwise indicated):** 50

**Prepared By:** HSE Department

**Issue Date:** 22-Feb-2013

**Revision Date:** 19-Nov-2019

**Revision Note:** Reviewed and Re-issued.

**Disclaimer:**

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.

**End of Safety Data Sheet**