

Nasc

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IMPORTANT
MATERIAL SAFETY DATA SHEET

READ CAREFULLY BEFORE USING CHEMICAL
 OSHA requires that this form be kept on file.

Product No. KM 1053M

Product Name SULFURIC ACID, 95-98%

Principal Hazardous Component(s)

*Sulfuric Acid

24 HOUR EMERGENCY ASSISTANCE

CHEMTREC 800-424-9300
HAZARD RATING

4-EXTREME
 3-SEVERE
 2-MODERATE
 1-SLIGHT
 0-MINIMAL

Health Hazard	3
Flammability	0
Reactivity	3

SECTION 2 - HAZARD IDENTIFICATION

Chemical Synonyms	Oil of Vitriol
Formula	H ₂ SO ₄
C.A.S. No.	7664-93-9

Principal Hazardous Component(s)	%	P.E.L.	TLV Units
*Sulfuric Acid	95-98	1 mg/m ³	1 mg/m ³

* chemical subject to the reporting requirements of SARA Title III.

Melting Point (°F)	ca. 6°F	Specific Gravity (H ₂ O=1)	1.84
Boiling Point (°F)	ca. 590°F	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	1 @ 146°C	Evaporation Rate (=1)	N/A
Vapor Density (Air=1)	<0.3 @ 25°C		
Solubility in Water	Infinite @ 20°C		
Appearance & Odor	Colorless, oily liquid; odorless.		

Flash Point (Method Used)	N/A	Flammable Limits in Air % by Volume	Lower	Upper
			N/A	N/A
Extinguisher Media	Dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool.			

Special Firefighting Procedures

In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Unusual Fire and Explosion Hazards

Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Reacts with most metals releasing flammable, potentially explosive hydrogen gas.

D.O.T. Sulfuric acid, 8, UN1830, PGII

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

Threshold Limit Value

1 mg/m³ (TWA)

Effects of Overexposure

Inhalation: Inhalation produces damaging effects on the mucous membranes and upper respiratory tract. May cause lung edema. Symptoms may include irritation of the nose and throat, and labored breathing.
Ingestion: Corrosive. Swallowing can cause severe burns of the mouth, throat, and stomach, leading to death. Can cause sore throat, vomiting, diarrhea. **Skin Contact:** Symptoms of redness, pain, and severe burn can occur. **Eye Contact:** Splashes can cause blurred vision, redness, pain and severe tissue burns.
Chronic Exposure: Long-term exposure to mist or vapors may cause damage to teeth.

Emergency and First Aid Procedures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician. **Ingestion:** Do not induce vomiting. Give large quantities of water or milk if available. Call a physician immediately. Never give anything by mouth to an unconscious person. **Skin Contact:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. **Eye Contact:** Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Stability	Stable <input checked="" type="checkbox"/> Unstable <input type="checkbox"/>	Conditions to Avoid	N/A
Incompatibility (Materials to Avoid)		Water, bases, organic material, halogens, metal acetylides, oxides and hydrides, strong oxidizing and reducing agents and many other reactive substances	
Hazardous Decomposition Products		Toxic fumes of oxides of sulfur. Will react with water or steam to produce toxic and corrosive fumes. Reacts with carbonates to generate carbon dioxide gas, and with cyanides and sulfides to form poisonous hydrogen cyanide and hydrogen sulfide respectively.	
Hazardous Polymerization	May Occur <input type="checkbox"/> Will Not Occur <input checked="" type="checkbox"/>	Conditions to Avoid	N/A

Steps to be Taken in Case Material is Released or Spilled

Dike and cover leaking or spilled liquid with dirt, vermiculite or other inert absorbent. Cover spill with sodium bicarbonate or soda ash and mix. Clean-up personnel require protective clothing and respiratory protection from vapors and mists. Flush area of spill with dilute soda ash solution and discard to sewer.

Waste Disposal Method

Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Neutralized waste may be containerized and disposed in a RCRA approved waste disposal facility.

Respiration Protection (Specify Type)	NIOSH approved respirator if TLV exceeded.		
Ventilation	Local Exhaust	X	Special -----
	Mechanical (General)	-----	Other -----
Protective Gloves	Impervious gloves	Eye Protection	Goggles and faceshield
Other Protective Equipment	Impervious protective clothing		

Precautions to be Taken in Handling & Storing

Keep container tightly closed when not in use. Store in a cool, dry, ventilated storage area. Keep out of direct sunlight and away from heat, water and incompatible materials.

Other Precautions

Read label on container before using. Do not wear contact lenses when working with chemicals. When diluting, always add the acid to water; never add water to the acid.

Approved by Steven C. Quandt Effective Date 10/31/94

For laboratory use only. Not for drug, food or household use. Keep out of reach of children

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.