



COLUMBUS CHEMICAL INDUSTRIES INC.

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Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910 1200. Standard must be consulted for specific requirements

U.S. Department of Labor

Occupational Safety and Health Administration
 (Non-Mandatory Form)
 Form Approved
 OMB No. 1218-0072

IDENTITY (as Used on Label and List)

Sulfuric Acid

Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

Section I

Manufacturers /Distributor Address Number Street City State and Zip Code	Emergency Telephone Number
Columbus Chemical Industries	Chemtrec 1-800-424-9300
P.O. Box 8, N4335 Temkin Rd.	Telephone Number for Information
Columbus, WI 53925-0008	920-623-2140
	Date Prepared
	06-02-2005
	Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity, Common Name(s))	CAS #	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Sulfuric Acid*	7664-93-9	1mg/m ³	1mg/m ³	STEL	90-98%

*Chemical Subject to the reporting requirements of SARA Title III Section 313

*EPA TSCA Section 8(B) Chemical Inventory.

*Synonyms: Dihydrogen sulfate; Oil of Vitreol; Sulphuric acid.

Section III - Physical/Chemical Characteristics

Boiling Point	307 °C (585 °F)	Specific Gravity (H ₂ O = 1) @ 60 °F / 60 °F	1.8
Vapor Pressure (mm Hg) @ 20 °C (77 °F)	0.002 mmHg	Melting Point	-13.7 °C (7 °F)
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	<1

Solubility in Water
 Complete (in all proportions).
 Appearance and Odor
 Clear ro slightly cloudy, oily liquid. Odorless to slightly pungent liquid.

Section IV Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
Not Flammable.	Not applicable	Not applicable	Not applicable

Extinguishing Media
 Use dry chemical or CO₂.
 Special Fire Fighting Procedures
 Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece respirator operated in positive pressure mode. Cool exterior of storage tanks.

Unusual Fire and Explosion Hazards
 Reacts violently with water. Emits toxic fumes under fire conditions. Corrosive. Contact with combustible material under fire conditions may cause fire, heat, and dense white fumes. Reacts with most metals to form flammable hydrogen gas.

Section V Reactivity Data

Stability	Unstable		Conditions to Avoid	Water, combustible materials and metals/metal surfaces.
	Stable	X		

Incompatibility Materials to Avoid

Alkali, carbonates, organic materials, metals, carbides, cyanides, chlorates, nitrates, picrates, permanganate, peroxides.

Hazardous Decomposition or Byproducts

Oxides of sulfur (e.g. sulfur dioxide); hydrogen sulfide.

Hazardous Polymerization**Conditions to Avoid**

	May Occur		Not available
	Will Not Occur	X	

Section VI Health Hazard Data

Routes of Entry	Inhalation ?	Skin ?	Ingestion ?
Multiple-including eyes	Yes	Yes	Yes

Health Hazards (Acute and Chronic)

Destructive to mucous membranes and upper respiratory tract, eyes and skin. Eye contact may cause permanent eye damage. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, pulmonary edema and chemical pneumonitis. May effect teeth and cardiovascular system. Ingestion may be fatal.

Carcinogenicity	NTP	IARC Monographs	OSHA REGULATED?
	Not listed	Yes (as mist)	Not Listed

Signs and Symptoms of Exposure.

Burning sensation of skin, eyes and/or upper respiratory tract. Coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Skin burns, irritation of eyes and inflammation and/or edema of exposed tissues.

Medical Conditions Generally Aggravated by Exposure

Unknown to CCI.

Emergency and First Aid Procedures **INGESTION:** Wash out mouth with water provided person is conscious. Call a physician immediately. **INHALATION:** Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. **SKIN:** Flush with water for at least 15 minutes. Remove contaminated clothing; call a physician. **EYES:** Flush with large amounts of water for at least 15 minutes, lifting lower and upper eyelids. Call a physician immediately.

Section VII Precautions for Safe Handling and Use**Steps to be Taken in Case Material is Released or Spilled**

Evacuate area. Wear self-contained breathing apparatus, rubber boots and heavy rubber

Stop leak if able to do so without risk. Ventilate area. Neutralize spill with soda ash or lime. With clean shovel carefully place material into clean, dry container; cover and remove from area. Flush spill area with water.

Waste Disposal Method Dispose of material in accordance with all applicable Federal, state, and local regulations.

Precautions to be Taken in Handling and Storing

Store in a cool, dry, well-ventilated area in tightly-closed, plainly-labelled containers. Store in a resistant area. Protect against water, physical damage and light. Maintain adequate ventilation. Wash thoroughly after handling. Do not ingest or breathe. Protect exposed tissues. Store away from sources of ignition.

Other Precautions Do not allow contact with water. Containers, even when empty, will retain residue and vapors. Always obey hazard warnings and handle empty containers as if they were full.

Section VII Control Measures

Respiratory Protection (Specify Type) NIOSH / MSHA approved respirator with acid/organic cartridge.

Ventilation	Local Exhaust	Necessary.	Special	Safety Shower nearby.
	Mechanical (General)	Recommended.	Other	Eye wash station nearby.

Protective Gloves Compatible, chemical-resistant gloves. **Eye Protection** Chemical safety goggles.

Other Protective Clothing or Equipment Rubber apron, boots. Full rubber acid suit. Full face shield.

Work /Hygienic Practices Do not wear contact lenses when handling this material. Wash thoroughly after handling. Minimize vapor and mist levels. Avoid contact with skin and eyes. Do not breathe vapor. Avoid prolonged or repeated exposure.

CORROSIVE! Do not breathe vapor or mists.

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