SULFURIC ACID
MATERIAL SAFETY DATA SHEET

Section 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICTION

MANUFACTURER'S NAME: CARUS CORPORATION	**TELEPHONE NUMBER:** (815) 223-1500 **Web:** www.caruschem.com
MANUFACTURING FACILITY: Carus Corporation 1500 Eighth Street P. O. Box 1500 LaSalle, IL 61301	**EMERGENCY TELEPHONE NO.** (800) 435 - 6856 (USA) (815) 223 –1500 (other countries) **CHEMTREC® TELEPHONE NO.** (800) 424-9300 (USA)

Section 2. IDENTIFICATION

PRODUCT NAME:	Sulfuric Acid	**REVISION DATE:** None			
CHEMICAL NAME:	Sulfuric Acid	**FORMULA:** H_2SO_4			
SYNONYMS:	Hydrogen sulfate, Oil of Vitriol, Electrolyte Acid, Battery Acid.	**PACKING GROUP:** II			
D.O.T. HAZARD CLASS:	Corrosive, 8	**UN NO.**	1830	**CAS NO.**	7664-93-9
D.O.T. SHIPPING NAME:	Sulfuric Acid				
	RQ, Sulfuric Acid for packaging that contains >1000 pounds.				

Section3. PHYSICAL DATA

PHYSICAL STATE: Clear to amber liquid, heavy, oily liquid, which may have a penetrating odor.	**SPECIFIC GRAVITY AT 60°F:** 1.83	**pH**: < 1
BOILING POINT, °F: 535° F (279° C)	**SOLUBILITY IN WATER:** Miscible in all proportions in water. Also soluble in alcohol.	
FREEZING POINT, °F: -21.1	**VOLATILES VOLUME %:** Not established.	
VAPOR PRESSURE, mm Hg AT 102^{0}F: 0.0016	**EVAPORATION RATE:** Not established.	

Section 4. HAZARDOUS COMPONENTS GREATER THAN 1%

MATERIAL	OSHA PEL	ACGIH TLV, (STEL)	CAS.NO.	%
Sulfuric Acid	1 mg/m^3	1 mg/m^3, (3mg/m^3)	7664-93-9	93.2
CARCINOGENICITY:	Not considered carcinogenic by IARC, NTP or OSHA.			

Section 5. FIRE AND EXPLOSIVE HAZARD DATA

FLASH POINT:	Not applicable.
NORMAL EXTINGUISHING AGENT:	Water, dry chemical, or CO_2.
SPECIAL FIRE FIGHTING PROCEDURES:	Self-contained breathing apparatus.
UNSUAL FIRE AND EXPLOSION HAZARDS:	Not flammable but highly reactive.

Section 6. REACTIVITY DATA

STABILITY:	Stable under normal conditions.	**CONDITIONS TO AVOID:**	Reacts violently with water and organic materials with evolution of heat. Under fire conditions, decomposes to form sulfur oxides.
INCOMPATIBILITY (materials to avoid):		Metals and organic materials such as chlorate, carbides, fulminates and picrates.	
HAZARDOUS COMBUSTION / DECOMPOSITION PRODUCTS:		May liberate potentially toxic gases and vapors.	

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Section 7. HEALTH HAZARD DATA

ACUTE EFFECTS OF EXPOSURE	
INGESTION:	Severe burning and pain in the mouth, throat and abdomen. Vomiting, diarrhea and perforation of the esophagus and stomach lining may occur.
SKIN CONTACT:	Concentrated solution may cause pain and severe burns to the skin and brownish or yellow stains. Prolonged exposure and repeated exposure to the dilute solutions may cause irritation, redness, pain and drying and cracking of the skin.
INHALATION:	Vapor or mist from concentrated solutions may cause irritation of the eyes, nose, and respiratory tract. May cause increased pulmonary resistance, transient cough and bronchoconstriction. Severe overexposure may result in lung collapse and pulmonary edema, which can be fatal.
EYE CONTACT:	Immediate pain, sever burns and corneal damage which may result in blindness.
CHRONIC EFFECTS OF EXPOSURE:	No specific information.
OTHER HEALTH DATA:	No specific information.

EMERGENCY AND FIRST AID PROCEDURES	
INGESTION:	Never give anything by mouth to an unconscious person. Give ½ to 1 glass of water to dilute material. If vomiting occurs spontaneously, keep airway clear and give more water. Get immediate medical attention.
EYES :	Flush exposed area with water for at least 20 minutes. Hold eyelids apart to ensure complete irrigation of eye/lid tissue. If irritation persists, repeat flushing. Get immediate medical attention.
INHALATION:	Remove to fresh air. Give artificial respiration only if breathing has stopped. Give cardiopulmonary resuscitation if there is no breathing and no pulse. Get immediate medical attention.
SKIN:	Flush exposed area with water for at least 20 minutes. Under running water, remove contaminated clothing and shoes. If irritation persists, repeat flushing. Get immediate medical attention. Completely decontaminate clothing and shoes before re-use.

Section 8. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:	Remove all ignition sources. Ventilate area. Contain all spills, if safe to do so. Dike the area to prevent material from entering waterway. Absorb with lime, limestone, sodium carbonate, sodium bicarbonate, dilute sodium hydroxide or dilute aqua ammonia and dispose of properly.
WASTE DISPOSAL METHOD:	Disposal of all materials shall be in full and strict compliance with all federal, state, and local regulations.

Section 9. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:	Approved NIOSH/MSHA respirator.		
PROTECTIVE GLOVES:	Neoprene or PVC	**EYE PROTECTION:**	Chemical safety goggles.
VENTILATION:	Well-ventilated area.	**SPECIAL EQUIPMENT:**	Coveralls, boots, eyewash fountain, safety shower.

Section 10. SPECIAL PRECAUTIONS

HANDLING AND STORAGE:	Store in cool, dry place. Protect container from physical damage.
OTHER:	None known.

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