

Material Safety Data Sheet

BDH3068-500MLP
BDH3070-2.5LPC
BDH3072-2.5LG
BDH3074-3.8LP
BDH3076-19L
BDH3078-56L
BDH3088-111L
BDH3090-185L
TXBDH307438CPI



Sulfuric Acid

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sulfuric Acid

Synonyms/Generic Names: Oil of Vitriol, Battery Acid, Sulphuric Acid, Dihydrogen Sulfate

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd. Columbus, WI. 53925

For More Information Call: 920-623-2140
(Monday – Friday 8:00-4:30)

IN CASE OF EMERGENCY CALL:
(24 Hours/Day, 7 Days/Week)

CHEMTREC
800-424-9300
703-527-3887

2. COMPOSITION/INFORMATION ON INGREDIENTS

Weight %	Component	CAS #	EINECS# / ELINCS#	Classification*
95 – 98%	Sulfuric Acid	7664-93-9	231-639-5	C; R35, **
Balance	Water	7732-18-5	N/A	N/A

*Symbol and R phrase according to EC Annex1

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

3. HAZARDS IDENTIFICATION

Clear, colorless solution with caustic odor.

R35 – Causes severe burns.

S1/2, S26, S30, S45

Routes of Entry: Skin, eyes, inhalation and ingestion.



Ingredients found on carcinogen lists:

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>	<u>ACGIH</u>
Sulfuric Acid	Known	Group 1	Not Listed	A2

4. FIRST AID INFORMATION

Inhalation: Inhalation of mists can cause corrosive action on mucous membranes. Symptoms include burning, choking, coughing, wheezing, laryngitis, shortness of breath, headache or nausea. Move casualty to fresh air and keep at rest. Get medical attention if symptoms persist.

Eyes: Contact rapidly causes severe damage. Symptoms include eye burns, watering eyes. Permanent damage to cornea may result. In case of eye contact, rinse with plenty of water and seek medical attention immediately.

Skin: Severe and rapid corrosion from contact. Extent of damage depends on duration of contact. Symptoms include burning, itching, redness, inflammation and/or swelling of exposed tissues. harmful if absorbed through skin. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.

Ingestion: Do Not Induce Vomiting! Severe and rapid corrosive burns of the mouth, gullet and gastrointestinal tract will result if swallowed. Symptoms include burning, choking, nausea, vomiting and severe pain. Wash out mouth with water and give a glass of water or milk. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point:	Not Flammable
Flash Point method:	Not Applicable
Autoignition Temperature:	Not Applicable
Upper Flame Limit (volume % in air):	Not Applicable
Lower Flame Limit (volume % in air):	Not Applicable

Extinguishing Media: Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water, keep away from common metals.

Special fire-fighting procedures: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Material can react violently with water (spattering and misting) and react with metals to produce flammable hydrogen gas.

Hazardous combustion products: Emits toxic fumes under fire conditions. (See also Stability and Reactivity section).

Unusual fire and explosion hazards: Contact with organic material may cause fire. Material can react with metals to produce flammable hydrogen gas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: See section 8 for recommendations on the use of personal protective equipment.

Environmental precautions: Cleanup personnel need personal protection from inhalation and skin/eye contact. Evacuate and ventilate the area. Prevent spillage from entering drains. Cautiously add water to spill, taking care to avoid splashing and spattering. Neutralize diluted spill with soda ash or lime. Absorb neutralized spill with vermiculite or other inert absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Any release to the environment may be subject to federal/national or local reporting requirements. Dispose of all waste or cleanup materials in accordance with local regulations. Containers, even when empty, will retain residue and vapors.

7. HANDLING AND STORAGE

Normal handling: See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Storage: Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Drains for storage or use areas for this material should have retention basins for pH adjustment and dilution of spills.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: (consult local authorities for acceptable exposure limits)

<u>Chemical name</u>	<u>Regulatory List</u>	<u>Value and type</u>
Sulfuric Acid	UK OES	1 mg/m ³ TWA
	USA OSHA PEL	1 mg/m ³ TWA
	STEL	3 mg/m ³ (15 minutes)
	USA ACGIH	1 mg/m ³ TLV
	USA NIOSH	1 mg/m ³ REL
	USA OSHA IDLH	15 mg/m ³
	VME France	1 mg/m ³ TWA 8 hr
VLE France (STEL)	3 mg/m ³ (15 minutes)	

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

STEL: Short Term Exposure Limit during 15 minutes.

IDLH: Immediately Dangerous to Life or Health

Ventilation: Provide local exhaust, preferably mechanical.

Respiratory protection: If necessary use an approved respirator with acid vapor cartridges.

Eye protection: Wear chemical safety glasses with a face shield for splash protection.

Skin and body protection: Wear neoprene or rubber gloves, apron and other protective clothing appropriate to the risk of exposure.

Other Recommendations: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless to slight yellow liquid
Physical state:	Liquid
Odor:	Caustic
Odor Threshold:	Unknown
Specific Gravity:	1.8427
pH:	1
Melting Point/Freezing Point:	10°C (51°F)
Boiling Point/Range:	330°C (626°F)
Flammability:	Not Flammable (See section 5)
Flash point:	Not Flammable (See section 5)
Evaporation Rate (Butyl Acetate =1):	Not Available
Explosive Limits:	Not Explosive (See section 5)
Vapor Pressure (at 20°C):	Not Available
Vapor Density (air =1):	3.4
Solubility:	Completely soluble in water
Partition coefficient/n-octanol/water:	Not Available
% Volatile:	Not Available
Autoignition Temperature:	See section 5

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions to avoid: Uncontrolled addition of water.

Incompatibility: Moisture, bases, halides, organic material, metals, carbides, cyanides, chlorates, nitrates, picrates, permanganate, peroxides, zinc iodide, azides, perchlorates, phosphorus, nitrites and finely powdered metals.

Hazardous decomposition products: Oxides of sulfur, Hydrogen sulfide gas.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Effects: See section 4 for symptoms of exposure and effects. Likely routes of exposure are skin, eyes and inhalation.

Target organs: Teeth, blood, liver, bone marrow and cardiovascular system.

Acute Toxicity Data:

Sulfuric acid	Oral LD ₅₀ (rat): 2140 mg/kg
	LC ₅₀ (rat): 510 mg/m ³

Chronic Effects: Sulfuric Acid mists are listed as a possible carcinogen.

Teratogenicity: Inhalation (rabbit) 20 mg/m³/7hrs, 6-18 days pregnant, result-musculoskeletal deformities.

Mutagenicity: Hamster, 4 MMOL/L, ovary.

Embryotoxicity: Not Available

Synergistic Products/Effects: Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial): Data not available

Persistence and Degradability: Data not available

Bioaccumulative Potential: Data not available

Mobility in Soil: Data not available

Other Adverse Effects: Data not available

13. DISPOSAL CONSIDERATIONS

RCRA:

Hazardous waste? Yes RCRA ID number: DOO2

Waste Residues: Carefully dilute with water, neutralize per spill procedures in section 6. Neutralized material may be flushed to sewer (REGULATIONS PERMITTING!) or disposed of through a licensed contractor. Users should review their operations in terms of the applicable federal/nation or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

Product containers: Containers, if thoroughly cleaned, preferably by rinsing three times and handling the rinse water as waste residues, may be disposed of or recycled as non-hazardous waste. Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

DOT: UN1830, Sulfuric Acid, 8, pg II

TDG: UN1830, Sulfuric Acid, 8, pg II

PIN: Not Available

IDMG: UN1830, Sulphuric Acid, 8, pg II

Marine Pollutant: No

IATA/ICAO: UN1830, Sulphuric Acid, 8, pg II

RID/ADR: Class 8, Item 1(b), corrosive, Kemler plate: 80/1830

15. REGULATORY INFORMATION

TSCA Inventory Status: All ingredients are listed on the TSCA inventory.

Federal and State Regulations:

Pennsylvania RTK: Sulfuric Acid

Massachusetts RTK: Sulfuric Acid

SARA 302/304/311/312 extremely hazardous substances: Sulfuric Acid

SARA 313 toxic chemical notification and release reporting: Sulfuric Acid

CERCLA: Hazardous Substances: Sulfuric Acid

California Proposition 65: Yes - Strong inorganic acid mists containing sulfuric acid.

WHMIS Canada: Class E - corrosive liquid.

DSCL (EEC): R35 – Causes severe burns.

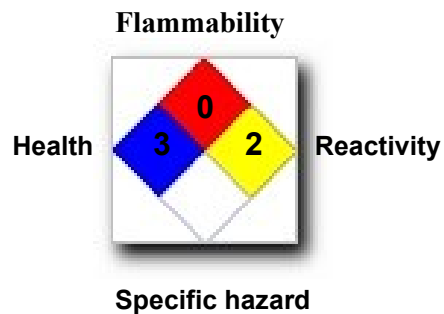
HMIS (U.S.A.)

Health Hazard	3
Fire Hazard	0
Reactivity	3

National Fire

Protection

Association (U.S.A.)



Protective Equipment:



ADR (Europe):



TDG (Canada):



DSCL (Europe):



16. OTHER INFORMATION

Current Issue Date: December 10, 2010

Prepared by: S. Brock

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