

SAFETY DATA SHEET

Sulfuric acid 1.8N

Version 1.0 Revision 8
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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Details

Product name : Sulfuric acid 1.8N solution
Trade name : Sulfuric acid 1.8N solution
Chemical name : Hydrogen sulfate solution, Sulfuric acid solution
Molar mass : 98.079 g/mol
Chemical family : Acid. Solution
Chemical formula : H₂SO₄ in H₂O
Manufacturer's code : CD04-600008
Use : Laboratory chemicals, analytical reagents

1.2 Company Identification

Manufacturer's name : Centronics Sdn Bhd
Distributor's name & address : Centronics Sdn Bhd
 Centronics Systems & Services Sdn Bhd
 No. 23, Jln Sungai Jerluh 32/196
 Seksyen 32, Bukit Kemuning
 40460 Shah Alam, SEL
Emergency tel. no. : 603-5525 2568
Fax. no. : 603-5131 5668

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the hazardous chemical

Corrosive/harmful to skin	Category 1A
Corrosive to metals	Category 1
Harmful/causing severe eye damage	Category 1

2.2 Label element



Signal Word

Danger

2.3 Hazard statements

H290 - May be corrosive to metals
 H314 - Causes severe skin burns and eye damage

2.4 Precautionary statements

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
 P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
 P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower
 P310 - Immediately call a POISON CENTER or doctor/ physician

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P234 - Keep only in original container

2.5 Emergency overview

DANGER! Liquid and mist cause severe burns to all body tissue. May be fatal if swallowed. Harmful if inhaled. Water reactive. May be harmful if inhaled. Corrosive to metals.

Potential health effects

Eyes Contact Corrosive. Causes severe eye irritation, blurred vision and possible burns.

Skin Contact Corrosive. Symptoms of redness and severe burn can occur.

Inhalation Symptoms may include irritation of the nose and throat.

Ingestion Corrosive. Swallowing can cause severe burns of the mouth, throat and stomach, leading to death. Can cause sore throat, vomiting, diarrhea.

SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS

CAS#	Chemical Name	%	Hazardous
7664-93-9	Sulfuric Acid	4-5	Yes
7732-18-5	Water	95-96	No
7785-87-7	Manganese(II) sulfate	<0.01	Yes

SECTION 4: FIRST AID MEASURES

Eyes	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Skin	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.
Ingestion	If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Immediate medical attention is required.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Flammability of the product

Non – flammable

5.2 Fire extinguishing media

Dry chemical, foam or carbon dioxide. Do not use water on material. However, water spray may be used to keep fire exposed containers cool.

5.3 Firefighting instructions

As in any fire, wear a self-contained breathing apparatus in pressure-demand, and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Use water with caution and in flooding amounts. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Non-combustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.

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5.4 Special hazards

None of the components known can caused special hazards

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1 General information

Use proper personal protective equipment as indicated in Section 8.

6.2 Small spill and leak

Dilute with water and mop up or absorb spill with inert dry material then place in appropriate waste disposal container.

6.3 Large spill and leak

Stop leak if without risk. Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading. Use water spray to reduce vapors. Avoid runoff into storm sewers and ditches which lead to waterways. Call for assistance on disposal

SECTION 7: HANDLING AND STORAGE

7.1 Handling

If necessary, use under a chemical fume hood. Wear personal protective equipment. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Discard contaminated shoes. Wash thoroughly after handling.

7.2 Storage

Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Protect from physical damage. Keep out of direct sunlight and away from heat. Do not wash out container and use it for other purpose.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Airborne Exposure Limits

Chemicals Name	ACGIH	NIOSH	OSHA
Water	None listed	None listed	None listed
Sulfuric Acid	0.2 mg/m ³ (TWA)	1 mg/m ³ TWA 15mg/m ³ IDLH	1mg/m ³ TWA
Manganese (II) sulfate	0.2 mg/m ³ (TWA)	0.2 mg/m ³ (TWA)	0.2 mg/m ³ (TWA)

8.2 Personal Protections

Skin Wear appropriate protective gloves (Nitrile) and suitable clothing to prevent skin exposure.

Eyes Wear chemical splash goggles.

Clothing Wear appropriate protective clothing to prevent skin exposure.

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Respirators A suitable respiratory protection must be wear.

8.3 Ventilation

Local exhaust ventilation is generally preferred.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Form : Liquid Color : Colorless
Odor	: Practically odorless
pH	: ~1.0
Vapor pressure	: No information available.
Vapor density	: >1.0
Evaporation rate	: Not available.
Boiling point	: 100°C
Melting point	: 0°C
Flash point	: Non flammable
Decomposition temperature	: Non flammable
Solubility	: Soluble in water
Specific gravity/density	: >1.0

SECTION 10: STABILITY AND REACTIVITY

Stability	: Stable.
Conditions to avoid	: Extreme temperatures.
Incompatibility (material to avoid)	: Metals, Powdered metals, Reducing agents, Bases, Organic Materials
Hazardous decomposition or by-products	: Sulfur oxides, Hydrogen
Hazardous polymerization	: Hazardous polymerization does not occur

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SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

RTECS number	Sulfuric Acid Water	WS5600000 ZC0110000
Toxicity	LD50: Not available	
Chronics effects on humans	Not available	
Irritancy	Cause irritation and burns.	
Carcinogenic	Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.	
Effects toxicity to reproductive system	Not available	
Acute effects on humans	Hazardous in case of eye contact. Causes eye burns. Hazardous in case of skin contact. Skin contact produce burns. Hazardous in case of inhalation (lung irritant).	

SECTION 12: ECOLOGICAL INFORMATION

Mobility & bioaccumulation	No data available
Ecotoxicity	No available.
Environmental	No information available
Toxicity of the products of biodegradation	The products of degradation are less toxic than the product itself

SECTION 13: DISPOSAL INFORMATION

Product

Whatever product cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved waste facility.

RCRA HAZARD CLASS: Not Listed

Contaminated packaging

Dispose of as unused product

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SECTION 14: TRANSPORT INFORMATION

Proper shipping name	Sulfuric Acid Solution
Un number	3264
Hazard class	8
Packing group	II
Special shipping instructions	Not applicable

SECTION 15: REGULATORY INFORMATION

NFPA ratings

Health: 3 Flammability: 0 Reactivity: 2

TSCA: Listed in TSCA inventory
Environmental Quality Act 1974: this product not contains air pollutant

SECTION 16: OTHER INFORMATION

Key literature references and sources for data

Suppliers safety data sheet,
Chemadvisor - LOLI,
Merck index,

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Revision of the SDS: Revision 8
Reason for revision: Change of product details

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End of Safety Data Sheet