



SIGMA-ALDRICH

Material Safety Data Sheet

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Version 1.50

Section 1 - Product and Company Information

Product Name SODIUM SULFATE ANHYDROUS
Product Number S9627
Brand Sigma Chemical

Company Sigma-Aldrich
Street Address 3050 Spruce Street
City, State, Zip, Country SAINT LOUIS, MO 63103 US
Technical Phone: 314 771 5765
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Section 2 - Composition/Information on Ingredient

Substance Name SODIUM SULFATE ANHYDROUS
CAS # 7757-82-6
SARA 313 No

Formula Na₂SO₄
Synonyms Bisodium sulfate, Dibasic sodium sulfate, Disodium monosulfate, Disodium sulfate, Kernol, Natriumsulfat (German), Salt cake, Sodium sulfate anhydrous, Sodium sulphate, Sulfuric acid, disodium salt, Thenardite

Section 3 - Hazards Identification

HMIS Rating
Health: 0 Flammability: 0 Reactivity: 1

NFPA Rating
Health: 0 Flammability: 0 Reactivity: 1

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation Exposure
If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Dermal Exposure
In case of contact, immediately wash skin with soap and copious amounts of water.

Eye Exposure
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Autoignition Temp: N/A

Extinguishing Media
Suitable

Noncombustible. Use extinguishing media appropriate to surrounding fire conditions.

Firefighting

Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s)

Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling

User Exposure

Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage

Suitable

Keep tightly closed. Store in a cool dry place.

Special Requirements

Hygroscopic.

Section 8 - Exposure Controls / PPE

Engineering Controls

Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment

Respiratory

Government approved respirator.

Hand

Compatible chemical-resistant gloves.

Eye

Chemical safety goggles.

General Hygiene Measures
Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance	Color	Form
	White	Fine crystals
Molecular Weight:	142.04 AMU	
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	884 °C	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	2.68 g/cm ³	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatiles%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point °F	N/A	
Flash Point °C	N/A	
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Solubility	Solubility in Water: 1 M in H ₂ O, 20°C, complete, colorless	

N/A = not available

Section 10 - Stability and Reactivity

Stability
Stable
Stable.
Conditions to Avoid
Protect from moisture.
Materials to Avoid
Strong acids, Aluminum, Magnesium.

Hazardous Decomposition Products
Hazardous Decomposition Products
Sulfur oxides.

Hazardous Polymerization
Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information

Route of Exposure
Skin Contact
May cause skin irritation.
Skin Absorption
May be harmful if absorbed through the skin.
Eye Contact
May cause eye irritation.
Inhalation
May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion
May be harmful if swallowed.

RTECS Number: WE1650000

Toxicity Data

Oral - Mouse: 5,989 mg/kg (LD50)
Intravenous - Rabbit: 1220 MG/KG (LD50)

Chronic Exposure Carcinogen

Mouse - Subcutaneous: 806 MG/KG 26W I
Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors.

Chronic Exposure - Teratogen

Species	Dose	Route of Application	Exposure Time
Mouse	60 MG/KG	Parenteral	(8D PREG)

Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).
Specific Developmental Abnormalities: Musculoskeletal system.

Chronic Exposure - Reproductive Hazard

Species	Dose	Route of Application	Exposure Time
Mouse	14 GM/KG	Oral	(8-12D PREG)

Result: Effects on Newborn: Other neonatal measures or effects.

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation
Contact a licensed professional waste disposal service to dispose of this material.
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA
Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

United States Regulatory Information

SARA Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information**WHMIS Classification**

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

Section 16 - Other Information

Disclaimer

For R&D use only. Not for drug, household or other uses.

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.