



SAFETY DATA SHEET

PRODUCT NAME: SODIUM SULPHATE

Issue Date: May 23

IDENTIFICATION

Product Name: Sodium Sulphate
Other Names: Salt cake; Sodium sulphate; Bisodium Sulphate; Anhydrous Sodium Sulphate
Product Code: ZSSULPH
Uses: Manufacture of craft paper, paperboard and glass, filler in synthetic detergents, sodium salts, ceramic glazes, processing textile fibers, dyes, tanning, pharmaceuticals, freezing mix, laboratory reagent, and food additive.
Supplier: HamChem Hamilton Chemicals Ltd, 75 Ruffell Rd, Te Rapa Park, Hamilton
Phone: 079744971 Web: www.hamchem.nz Email: sales@hamchem.nz

- In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.
- In case of poisoning phone National Poisons Centre – 0800 764 766

HAZARD IDENTIFICATION

Non-hazardous.
Health injuries are not known or expected under normal use.
Adverse ecological effects are not known or expected under normal use.

Precautionary Statements

Ingestion of large amounts may cause diarrhoea.
Avoid generating excessive dust.
Do not breathe dust.
If in contact with eyes, rinse thoroughly.

COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportion (%)
Sodium Sulphate	7757-82-6	>90%

FIRST AID MEASURES

SWALLOWED: Rinse mouth. Give a glass of water. Get medical advice if large amounts are swallowed. First aid is not generally required. If unwell or in doubt, contact a Poison Centre (0800 764 766) or a doctor.

EYE: If this product comes into contact with eyes, wash out immediately with water. If irritation continues, seek medical attention.

SKIN: If skin or hair contact occurs flush skin and hair with running water (and soap if available). Seek medical attention in the event of irritation.

INHALED: Remove to fresh air. Other measures are usually unnecessary. If symptoms persist, call a doctor.

NOTES TO PHYSICIAN: Treat symptomatically.

FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions: water, water spray, dry powder, foam, carbon dioxide (CO₂).

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FIRE FIGHTING: Alert Fire Brigade and tell them location and nature of hazard. Use standard procedure for chemical fires. Clear fire area of all non-emergency personnel. Stay upwind. Eliminate ignition sources. Prevent spillage from entering drains or water courses. Use water delivered as a fine spray to control fire and cool adjacent area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD: Combustible solid which burns but propagates flame with difficulty. Avoid generating dust, particularly clouds of dust in a confined or unventilated space. Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.

HAZARDS FROM COMBUSTION PRODUCTS: Combustion products include toxic fumes of Sulphur oxides.

FIRE INCOMPATIBILITY: Violent explosions occur when sodium sulphate is melted with aluminium and magnesium.

PERSONAL PROTECTIVE EQUIPMENT: Firefighters should wear protective firefighting clothing (including firefighting helmet, coat, trousers, boots and gloves).

ACCIDENTAL RELEASE MEASURES

MINOR SPILLS: Clean up all spills immediately. Remove all ignition sources. Stop spill if safe to do so. Avoid contact with skin and eyes. Avoid generating dust/mist/spray. Pick up and transfer to properly labeled containers for disposal. After cleaning, flush away traces with water.

MAJOR SPILLS: Clear area of personnel. Control personal contact by using protective equipment. Use spark-proof tools and equipment. Dam or dyke spilled material. Prevent spillage from entering drains, sewers or water courses. If contamination of drains or waterways occurs, advise emergency services. Recover product wherever possible. Put residues in labelled plastic pails or other suitable sealed containers for disposal. Wash spill area with plenty of water.

HANDLING & STORAGE

PROCEDURE FOR HANDLING: Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with skin and eyes. Keep containers closed until ready for use. Avoid dust formation.

SUITABLE PACKAGING: Original packaging as recommended by manufacturer. Check all packaging is clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY: Incompatible with aluminium and magnesium at elevated temperatures. Avoid moisture.

STORAGE REQUIREMENTS: Store tightly closed in dry, cool well ventilated conditions out of direct sunlight. Observe manufacturer's storing and handling recommendations.

EXPOSURE CONTROLS & PERSONAL PROTECTION
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EXPOSURE CONTROLS

Source	Material	TWA mg/m ³
New Zealand WES 2022	inspirable dust	10 mg/m ³
New Zealand WES 2022	respirable dust.	3 mg/m ³

No exposure limits set by WorkSafe New Zealand or Safe Work Australia.

ENGINEERING CONTROLS - VENTILATION SYSTEM: Remove dust as necessary. Refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

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PERSONAL PROTECTION EQUIPMENT (PPE)

PERSONAL RESPIRATORS: Respirators are not required, however, if in doubt, seek expert occupational hygiene advice. AS/NZS 1715:2009 and AS/NZS 1716:2012.

An approved dust mask e.g. a P1 respirator is recommended when using this product in dusty conditions. See Australian/New Zealand Standard, AS/NZS 1715:2009 and AS/NZS 1716:2012.

SKIN PROTECTION: Wear impervious protective clothing, including covered shoes, nitrile rubber gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

EYE PROTECTION: Use chemical safety glasses or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

PHYSICAL & CHEMICAL PROPERTIES

Appearance:	White crystals, granules or powder
State:	Solid
Molecular Weight:	142.04
Melting Range (°C):	844
Solubility in water (g/L, 20°C):	161-190
pH (5% solution, 25°C):	7
Volatile Component (%vol):	0
Relative Vapor Density(air=1):	Not Applicable
Lower Explosive Limit (%):	Not Applicable
Autoignition Temp (°C):	Not Applicable
Boiling Range (°C):	1429
Specific Gravity (water=1):	2.68
pH (as supplied):	Not Applicable
Evaporation Rate:	Not Applicable
Flash Point (°C):	Not Applicable
Upper Explosive Limit (%):	Not Applicable
Decomposition Temp (°C):	Not Available
Viscosity:	Not Applicable
Bulk Density (g/cm3):	1.1-1.6
Partition coefficient octanol/ water (log value):	-3
Refractive Index:	1.468

STABILITY & REACTIVITY

CHEMICAL STABILITY: Product is stable under normal conditions of use, storage and temperature.

CONDITIONS TO AVOID: Avoid excessive heat, direct sunlight, static discharges, moisture, freezing and high temperatures.

INCOMPATIBLE MATERIALS: Reacts violently with magnesium. Keep containers dry and tightly closed to avoid moisture absorption and contamination. At a temperature of 800°C sodium Sulphate and aluminium will explode. Avoid strong mineral acids and bases.

HAZARDOUS DECOMPOSITION: No decomposition if stored under normal conditions of use. Thermal decomposition can lead to release of Sulphur oxides.

HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

TOXICOLOGICAL INFORMATION

POTENTIAL ACUTE HEALTH EFFECTS: Sodium Sulphate is not expected to cause acute health effects under normal usage conditions.

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ACUTE HEALTH EFFECTS

SWALLOWED: Health injuries are not known or expected under normal use. Ingestion of large amounts may cause diarrhoea.

EYE: Dust may cause mild irritation.

SKIN: The material is not expected to produce adverse health effects or skin irritation following contact.

INHALED: No data available, however, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

CHRONIC HEALTH EFFECTS: No chronic adverse health effects are expected under normal use. Sulphate ions are important constituents of the mammalian body. A daily dose of approximately 25 mg/kg/day is well tolerated by humans.

TOXICITY AND IRRITATION DATA**TOXICITY:**

Acute Oral Toxicity, Rat, LD50: 10000 mg/kg

Acute Dermal Toxicity, LD50: Not available

Acute Inhalation Toxicity, LC50: Not available

IRRITATION: Not expected to cause skin or respiratory irritation under normal use conditions. May cause slight eye irritation.

ECOLOGICAL INFORMATION

ECOTOXICITY: No acute or long-term toxic effects on the environment expected.

ECOTOXICITY DATA

EC50 120h: 1,900 mg/l Algae

EC50 48h = 4,580 mg/l *Daphnia magna*

LC50 96h = 7,960 mg/l *Pimephales promelas*

Persistence and Degradability: Chemical oxygen demand (COD): No data available. Biochemical oxygen demand within 5 days (BOD5): No data available. In water sodium Sulphate completely dissociates into sodium and sulphate ions. In anaerobic environments Sulphate is reduced to Sulphide by Sulphate reducing bacteria or incorporated into living organisms as a source of Sulphur.

Mobility: In water sodium sulfate completely dissociates into sodium and sulfate ions, precipitates with Ba²⁺ and Pb²⁺ may occur.

Environmental Fate (Exposure): Exposure is most likely through drinking water and consumption of plant material. No adverse effects are expected.

Bioaccumulative Potential: Not expected to bioaccumulate.

DISPOSAL CONSIDERATIONS

Recycle wherever possible. Consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. Dispose of by: Burial in a licensed land-fill or Incineration in a licensed apparatus (after admixture with suitable combustible material). Empty contaminated packaging should be taken for local recycling, recovery or waste disposal.

TRANSPORT INFORMATION

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG.

Not classified as a Dangerous Good under NZS 5433 Transport of Dangerous Goods on Land.

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REGULATORY INFORMATION

Non-hazardous

OTHER INFORMATION

End of SDS.