



Technical Data Sheet Rock Salt

Product Identification:

- Product Name: Rock Salt
- Chemical Name: Sodium Chloride
- Common Names: Halite, De-icing Salt, Road Salt
- CAS Number: 7647-14-9

Product Description:

- Appearance: White to grey crystalline solid
- Purity: Typically 95-99.1% NaCl
- Source: Mined from underground deposits

Physical and Chemical Properties:

- Molecular Formula: NaCl
- Molecular Weight: 58.44 g/mol
- Melting Point: 801°C (1474°F)
- Boiling Point: 1413°C (2575°F)
- Solubility: Highly soluble in water (40 g/100 mL at 25°C)
- Density: 1.18 g/cm³
- pH: 6.7-7.3 (in solution)^a
- Hygroscopicity: Absorbs moisture from the air

Specifications:

- Particle Size Distribution:
- Granular: 1-10 mm
- Fine: 0.5-1 mm
- Moisture Content: ≤ 1%^a
- Impurities:
- Insolubles: ≤ 1.0%
- Calcium: ≤ 0.3%
- Magnesium: ≤ 0.1%
- Additives: None

Applications:

- De-icing: Effective for melting ice on roads, sidewalks, and driveways
- Water Treatment: Used in water softening processes
- Industrial Uses: Raw material in chemical manufacturing
- Agricultural Uses: Livestock feed supplement and soil treatment





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Quality and Compliance:

- Standards: Meets ASTM D632-12 for road salt
- Regulations: Complies with relevant FDA and EU regulations

Handling and Storage:

- Storage Conditions: Store in a cool, dry place away from moisture
- Shelf Life: Indefinite under proper storage conditions
- Packaging Options:
- 1250 kg Jumbo bags
- Bulk

Safety Precautions:

- Use personal protective equipment (PPE) such as gloves and goggles
- Avoid inhalation of dust

Health and Safety Information:

- Safety Data Sheet (SDS): Available upon request
- Toxicological Information: Non-toxic when used as directed
- First Aid Measures:
- Skin Contact: Wash with plenty of water
- Eye Contact: Rinse immediately with water for several minutes
- Ingestion: Drink plenty of water, seek medical attention if necessary
- Environmental Impact: Non-hazardous, but excessive use can affect soil and water salinity

Contact Information:

- Manufacturer: Al Asema Group Company for Construction and Salt Export
- Address: Siwa, Marsa, Matruh, Egypt
- Customer Service: +20 1128 561 316
- Technical Support: info@sadatglobal.com



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Section 4: First Aid Measures

Eye Contact	With open eyelids irrigate with eyewash solution or water for a minimum of 15 minutes. Seek medical attention.
Ingestion	Vomiting will probably occur. Give plenty of fluids. Seek immediate medical attention especially if vomiting has not occurred.
Inhalation	Move patient to fresh air. Keep warm and resting. Give fluids if desired. Seek medical attention if breathing becomes difficult.
Skin Contact	Wash the affected area(s) with water. Brush or remove affected clothing.
Advice to Doctor	Treat symptomatically

Section 5: Fire Fighting Procedures

Flammability Conditions	This material is not flammable.
Suitable Extinguishing Equipment	Use extinguishing agents that are suitable for surrounding fire.
Specific Hazards Arising from Combustion Products	Hydrogen chloride which is toxic by inhalation and a strong irritant of the eyes and skin may be formed during a fire.
Protective Equipment & Precautions for Fire Fighters	Wear self-contained breathing apparatus for firefighting if necessary.

Section 6: Accidental Release Measures

Personal precautions, protective equipment & emergency procedures	Clean-up personnel should wear personal protective equipment as necessary to protect against skin and eye contact and inhalation of dust.
Environmental Precautions	Use extinguishing agents that are suitable for surrounding fire.
Methods & materials for containment and cleaning up	Scoop up into a sealable container for recovery or disposal. Work up wind or increase ventilation. Collect and seal in properly labelled containers or drums for disposal. Trace residues can be washed down with large quantities of water.

Section 7: Handling & Storage

Handling	Avoid eye contact and repeated or prolonged skin contact.
Storage	Store in a cool, dry location. Keep container closed when not in use. Keep out of sunlight to prevent deterioration of packaging material. Avoid incompatibles described in Section 10.

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Section 8: Exposure Controls & Personal Protection

Control Parameters	Sodium chloride: None value assigned by Worksafe Australia. Should be considered as a 'Nuisance Particulate' 10 mg/m3, measured as inseparable dust (TWA). <i>Time Weighted Average (TWA) exposure standard refers to the average concentration of a substance when calculated over a normal eight hour working day/five day working week.</i>
Appropriate Engineering Controls	Choose equipment and handling to minimise dust formation. Salt facilitates corrosion of many common metals (especially in damp conditions), iron, steel, zinc and aluminium being particularly susceptible, while stainless steel is fairly resistant.
Individual Protective Measures	Where airborne concentrations of dust are high (> 10 mg/m3) an approved respirator meeting Australian Standard 1716 should be provided. Wear safety glasses to prevent eye injury. Always wash hands before eating, drinking, smoking or using the toilet.

Section 9: Physical & Chemical Properties

Physical State	Crystalline solid
Physical Appearance	White opaque crystalline solid
Odour	None
Flashpoint (°C):	Not Applicable
Melting Point (°C):	801°C
Boiling Point (°C):	1413°C
Solubility in Water (g/L):	357 @ 0°C 391.2 @ 100°C
Vapour Pressure (pascals or mm Hg at 25°C):	Not applicable
Flammability Limits (%):	Not applicable
Specific Gravity:	2.165 for compressed solid, 1.5 for granular form (bulk density)
Solubility	Soluble in water and glycerol. Slightly soluble in alcohol.

Section 10: Stability & Reactivity

Reactivity	Sodium chloride is generally unreactive. Releases gaseous hydrogen chloride if mixed with a concentrated non-volatile acid such as sulfuric acid.
Chemical Stability	Hygroscopic – absorbs moisture from the atmosphere
Possibility of Hazardous Reactions	Sodium chloride will corrode many common metals particularly iron, aluminium, and zinc. Reaction with burning lithium forms the dangerously reactive sodium.
Conditions to Avoid	Avoid damp / moist conditions. Avoid incompatible materials (below).
Incompatible Materials	Strong acids, bromine trifluoride, lithium
Hazardous Decomposition Products	When heated to decomposition it emits toxic fumes of hydrochloric acid and disodium oxide. May evolve chlorine gas when in contact with strong acids.

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Section 11: Toxicological Information

Health Effects	No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet. Sodium chloride is listed in the Australian Inventory of Chemical Substances (AICS) as "identified as low concern to human health by application of expert validated rules". If the product is mishandled and overexposure occurs the symptoms or effects that might occur are:
Acute Toxicity	Not classified as toxic. Sodium chloride LD50 rat (oral) = 3000 mg/kg. Human Toxicity Data: Sodium chloride TDLO (oral) = 8.2 g/kg.
Skin Contact	No irritation is likely after brief contact but repeated or prolonged contact with the skin may cause irritation.
Eye Contact	Contact with dust will irritate and may burn the eyes.
Ingestion	Ingestion of large quantities may cause gastrointestinal irritation, nausea and/or vomiting. TDLo human (oral) = 8.2g/kg.
Inhalation	Breathing dust may irritate the nose and throat and cause coughing and chest discomfort.
Chronic Effects	Ingestion of large quantities can cause high blood pressure. May cause disturbance in the blood electrolyte and fluid balance following repeated ingestion of large quantities. Inhalation can cause rapid ineffective breathing. No evidence to carcinogenicity.

Section 12: Ecological Information

Ecotoxicity	Concentrations of salt above 1000 mg/L in natural waterways may have a detrimental effect on natural ecosystems.
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Section 13: Disposal Considerations

Disposal Methods	Recover product where practical, vacuum or sweep up remnants (avoid generating dust) & dispose of in sealed containers. Clean up with water but prevent release to water systems or environment. Waste material should be disposed of following local, state or national EPA regulations.
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Section 14: Transport Information

Road and Rail Transport	Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.
Marine Transport	Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.
Air Transport	Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

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Section 15: Regulatory Information

Classification Based on available information, not classified as hazardous according to Safe Work Australia;
NON-HAZARDOUS CHEMICAL.
Poisons Schedule (SUSMP): None allocated.
This material is listed on the Australian Inventory of Chemical Substances (AICS).

Section 16: Other Information

Version 2

Date Authorised 15 August 2024

Reason for Change Review and update of the information to bring into line with the requirements for safety data sheets under the Globally Harmonised System of classification and labelling of chemicals (GHS).

Please Note The information contained herein is derived from a variety of sources and standards published internationally and despite all care taken to ensure that the information is accurate we cannot warrant its accuracy.
Customers should make their own judgements and tests as to the products characteristics and performance in the context of intended use.

Please Note: The information provided in this document has been derived from a variety of internationally published sources and standards. Safety levels are not 'no effect' levels and therefore do not guarantee protection to every worker. Given the nature of human biological variation workers exposed to a particular chemical may react at or below levels prescribed.

This information is not to be interpreted as a warranty. The manufacturer employs strict quality control procedures during the manufacture of these products. As the supplier and manufacturer do not control transportation, storage, handling or use of these products we assume no liability resulting from their use. There is no guarantee provided as to the suitability, performance, effects or results of or during the use of these products. Customers must make their own judgements and tests as to the characteristics and performance of the products in the context of intended use.

