

irish salt mining & exploration co. ltd.

Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Chemical Product Name	Sodium Chloride (Rock Salt)
Chemical Family	Halide
Chemical Name	Sodium Chloride (NaCl)
Commercial Use:	De-icing salt
Producer / Manufacturer	Emergency Telephone Numbers
Irish Salt Mining Co. Ltd	+44 (0)28 9335 1151
Fort Rd	+44 (0)7802 937142
Carrickfergus	
Co. Antrim	
BT38 9BT	

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

None for Salt – GRAS Substance (Generally Recognized As Safe)

Flammability: 0, Reactivity: 0, Protective Clothing: 0

Potential Health Effects

Route(s) Of Entry: Ingestion, skin/eye contact, inhalation.

Human Effects and Symptoms of Overexposure

Acute Inhalation: Irritation of the respiratory tract.

Acute Skin Contact: Large amounts can cause irritation, and, if applied to damaged skin, absorption can occur with effects similar to those of ingestion.

Acute Eye Contact: Irritation with burning and tearing (salt concentrations greater than the normal saline present).

Acute Ingestion: Intake of large amounts has generally occurred for deliberate reasons: suicide, absorption, and to induce vomiting. The following effects were observed; nausea and vomiting, diarrhoea, cramps, restlessness, irritability, dehydration, water retention, nose bleed, gastrointestinal tract damage, fever, sweating, high blood pressure. Death is generally due to cardiovascular collapse or CNS damage. Less than a few grams would not be harmful. For larger quantities drink large amounts of water or milk.

Carcinogenicity: Not listed as carcinogen or mutagen.

Medical Conditions Aggravated by Exposure: In some cases of confirmed hypertension, ingestion may result in elevated blood pressure.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Description

Brown crystalline solids

Contains (typically) 91.0% NaCl, composition by weight is 36% sodium and 55% chlorine.
2.5% Soluble Sulphates, expressed as CaSo4
6.5% Insoluble Clay/Marl, which gives the characteristic brown colour.

Sodium Hexacyanoferrate (E number - E535) is added at 80 ppm as an anticaking ingredient

4. FIRST AID MEASURES

First Aid for Eyes: Flush with water immediately.

First Aid for Skin: Remove clothing from affected area. Wash skin thoroughly.

First Aid for Inhalation: Remove patient to fresh air at once. Keep patient warm and give drinks if desired.

5. FIRE FIGHTING MEASURES

Flash Point: N/A

Extinguishing Media: N/A. This product is non-flammable.

Special Firefighting Procedures: At very high temperatures a vapour is emitted which is particularly irritating to the eyes.

6. ACCIDENTIAL RELEASE MEASURES

Spill or Leak Procedures: Contain spills to prevent contamination of water supply. Vacuum or sweep into containers for proper disposal.

7. HANDLING AND STORAGE

Storage Temperature (min./max.): Avoid humid or wet conditions as product will cake and become hard.

Special Sensitivity: Avoid contact with strong acids.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye Protection Requirements: Eye glasses or goggles should be worn in dusty areas.

Skin Protection Requirements: Protective Clothing may be worn in dusty areas but is generally not required.

Exposure Limits: Not Listed

Respiratory / Ventilation Requirements: Approved respirator for particulates.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Brown crystalline solid with slight halogen odor.

Colour: Brown to opaque

Odour: Halogen odour when heated.

Boiling Point: 1465 degrees centigrade

pH: 6.7 – 10.00

Solubility in Water: 26.4%

Specific Gravity: (H₂O=1) 2.16

Bulk Density: 1.3 tonnes per cubic metre

10. STABILITY AND REACTIVITY

Stability: Stable

Incompatibilities: Avoid contact with strong acids. Becomes corrosive to metals when wet.

Decomposition Products: May evolve chlorine gas when in contact with strong acids.

11. TOXICOLOGICAL INFORMATION

Description: Not Listed.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not Listed.

Environmental Degradation: Not listed.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Follow applicable Government and local regulations.

14. TRANSPORT INFORMATION

● Page 4

D.O.T. Shipping Name: Not listed

Technical Shipping Name: Not listed

D.O.T. Hazard Class: Not listed

U.N./ N.A. Number: Not listed

D.O.T. Label: Not listed

D.O.T. Placard: N/A

Freight Class Bulk: N/A

Freight Class Package: N/A

Product Label: N/A

15. REGULATORY INFORMATION

Product not listed or listed as non hazardous.

16. OTHER INFORMATION

Prepared By:

Title:

Contact:

Date:

MSDS No:



Disclaimer. All statements, technical information and recommendations contained herein are, to the best of our knowledge, reliable and accurate. However no warranty, either expressed or implied is made with respect thereto, nor will any liability be assumed for the use of the material described.

It is the responsibility of the user to comply with all applicable Government and Local laws and regulations. It is also the responsibility of the user to maintain a safe workplace. The user should consider the health hazards and safety information provided herein as a guide and should take the necessary steps to instruct employees, and to develop work practice procedures to ensure a safe working environment.

Registered address as above.

Registered No. N.I. 6389

MATERIAL SAFETY DATA SHEET (MSDS) SALT – SODIUM CHLORIDE

SECTION I – GENERAL

Trade Name: **HALITE ROCK SALT (WITH ANTI-CAKING AGENTS: YPS)**
Item: **RS50**
C.A.S. Number: **7647-14-5**
Chemical Name: **SODIUM CHLORIDE**
Formula: **NaCl; YPS**
Molecular Weight: **58.4428**

SECTION II – FIRST AID

Emergency Phone Number: **56 (2) 2338550**
Skin: **Wash with water**
Eyes: **Irrigate with plenty of water**

SECTION III - HAZARDS INFORMATION – HEALTH

Inhalation: **Inhalation of product may cause mild irritation of nose and throat**
Ingestion: **Ingestion of large amounts (greater than 0.1 lb) may cause gastrointestinal upset.**
Skin: **Dust may cause irritation.**
Eyes: **Dust may cause irritation.**
Permissible Concentration: Air: **None established** Biological: **No TLV established**
Unusual Chronic Toxicity: **None**

SECTION IV - HAZARDS INFORMATION

Flash Point °C : **Not flammable** Auto ignition Temp °C : **N/A**
Flammable Limits In Air (% by volume) – **N/A**

SECTION V – PRECAUTIONS/PROCEDURES

Fire Extinguishing Agents Recommended: **N/A** Fire Extinguishing Agents to Avoid: **N/A**
Special Fire Fighting Precautions: **N/A**
Ventilation: **Local exhaust if dusty conditions prevail.**
Normal Handling: **Avoid eye contact or prolonged skin contact.**
Storage: **Wet or damp conditions can cause caking or corrosion of metal contact surfaces.**
Spill or Leak: **Shovel up dry material into an empty container. Flush residue with water down local sewer.**
Special: Precautions/Procedures/Label Instructions: **Store in cool, dry area. No special cautions or labeling are required.**

SECTION VI – PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: **When required, use a respirator approved by NIOSH for product dust.**
Eyes and Face: **In extremely dusty areas, chemical safety goggles should be used.**
Hands, Arms, and Body: **Wear long-sleeved shirts and trousers for routine product handling. Gloves are optional.**
Other Clothing and Equipment: **N/A**

SECTION VII – PHYSICAL DATA

Appearance and Odor: **White crystalline solid. Slight saline odor.**
Boiling Point: **1465°C** Specific Gravity (H₂O = 1): **2.16** Vapor Density (Air – 1): **N/A**
Melting Point: **800°C** Vapor Pressure (mm Hg at 20°C): **2.4 mm at 746.9°C**
Solubility In Water (% By Weight): **26.395 Max at 60°F** ph (20% Solution): **6.5 – 9.5**

SECTION VIII – REACTIVITY DATA

Conditions to Avoid: **Wet/damp conditions can cause corrosion.**
Incompatibility (Materials to Avoid): **None provided the product is dry.**
Hazardous Decomposition Products: **None**

SECTION IX – HAZARDOUS INGREDIENTS (Mixtures Only)

Material or Component/ C.A.S. No.: **Sodium Chloride, CAS 7645-14-5**
Weight %:
Hazard Data (See Section J):

SECTION X – ENVIRONMENTAL

Degradability / Aquatic Toxicity: **Product is inorganic and may persist in the environment.**
Waste Disposal Methods (Disposer Must Comply With Federal, State and Local Disposal or Discharge Laws):
Flush to sewer if permitted by applicable disposal regulations.
RCRA Status of Unused Material: **Not a “hazardous waste.”**
40 CFR 261

SECTION XI – REFERENCES

Permissible Concentration References:

Regulatory Standards: **FDA regulations apply to food use and USP/NF grades (21 CFR).**
USDA regulations apply to use in meat and poultry products.
D.O.T. Classification: N/A - 49 CFR
General: **(a) Recommendations of the Salt Institute**

SECTION XII – ADDITIONAL INFORMATION

This product is not for food or drug use unless material is labeled “food grade”, “USP grade”, or “NF grade”, as applicable. This product safety data sheet is offered solely for your information, consideration and investigation. Compania Minera Punta de Lobos S.A. provides no warranties, either express or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein.