1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product Identifier:

Product Name: Salt

Alternative Name: Sodium Chloride, vacuum salt, compacted salt, Halite

Chemical Formula: NaCl

CAS Number: 7647-14-5

EC Number: 231598-3

REACH Registration Number: Exempted from Registration according to Article 2 (7)b and Annex V of REACH

Relevant identified uses of the substance or mixture and uses advised against:

Identified use(s): Chemical manufacture, food industry, animal feed industry, water treatment.

Uses advised against: No uses advised against have been identified.

Company name:

Nexchem Ltd
Unit 3 Barshaw Park
Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
24/7 Emergency Tel: 0800 246 1274
Email: sales@nexchem.co.uk

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification (EC 1272/2008): Not classified.

Classification (1999/45/EEC): Not classified.

Label elements:

Label in Accordance With (EC) No. 1272/2008: No labelling required.

Label in Accordance with (1999/45/EEC): No label required.

Other Hazards: Unlikely to cause harmful effects under normal conditions of handling.

[cont…]

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance:

Main Constituent: Sodium Chloride

Formula: NaCl

CAS No.: 7647-14-5

EC No.: 231-598-3

Wt Percent: >99.9% w/w (on dry basis)

Contains: Part per million (ppm) levels of a non-toxic anti-caking additive, Sodium hexacyanoferrate (II – E535)

Hazardous Ingredients: Contains no hazardous ingredients in accordance with EC Regulation 1907/2006

4. FIRST AID MEASURES

Description of first aid measures:

General Advice: No known delayed effects.

Inhalation: Remove patient from exposure.

Ingestion: Do not induce vomiting. Wash out mouth with water and give 200 – 300 ml (half a pint) of water to drink. Obtain medical advice if ill effects occur.

Skin contact: Wash skin with water.

Eye contact: Remove contact lenses if worn. Rinse eye thoroughly with eye wash solution or clean water for at least 10 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. If symptoms develop seek medical attention.

Most important symptoms and effects, both acute and delayed: No further information.

Indication of any immediate medical attention and special treatment needed: No further information given.

5. FIRE-FIGHTING MEASURES

Extinguishing media: The product is non-flammable. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Unsuitable extinguishing media: None.

Special hazards arising from the substance or mixture: Salt withstands temperatures up to its melting point and beyond without decomposing, but at very high temperatures (greater than approximately 800oC), a vapour may be emitted which is particularly irritating to the eyes

Advice for fire-fighters: No special precautions required

Protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

[cont…]

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

- avoid prolonged contact with the skin and inhalation of dust concentrations.
- no special protective clothing is required.
- normal good handling and housekeeping practice is adequate.
- an eyewash bottle with clean water should be available.

Environmental precautions: Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environment Agency or other appropriate regulatory body.

Methods and material for containment and cleaning up: Clear up spillages. Use vacuum suction, or shovel into containers for disposal. Store material in a suitable, correctly labelled closed container, preferably for re-use, otherwise for disposal.

Reference to other sections: For personal protection, see section 8. For waste disposal, see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid prolonged skin contact. Keep dust levels to a minimum, salt is non-flammable, but static electricity can be generated by pneumatic conveying, therefore pipes should be bonded and earthed, especially in environments where a spark could prove hazardous atmospheric levels should be controlled in compliance with the workplace exposure limit (see Section 8.1).

Advice on good occupational hygiene: Normal good handling and housekeeping practice is adequate.

Conditions for safe storage, including any incompatibilities: Due to its hygroscopic nature, dried vacuum salt should be stored in a dry atmosphere and away from concentrated acids absorbs moisture if the relative humidity is greater than 75%.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Occupational Exposure Limits

Listed by H & SE (Guidance Note EH40)

WEL Recommended Limits: Total Inhalable Dust is: 10 mg/m3 (8h TWA). Respirable Dust is: 4 mg/m3 (8h TWA)

Exposure controls:

Engineering Measures: Static electricity can be generated by pneumatic conveying; therefore, pipes should be bonded and earthed, especially in environments where a spark could prove hazardous.

Hand protection: Protective gloves to be worn if prolonged contact is anticipated. Dry salt and concentrated solutions can cause withdrawal of fluid from the skin.

Eye protection: Wear chemical safety goggles in situations where contact with the eyes may occur.

Skin protection: No special protective equipment required. Skin should be washed to remove salt.

Respiratory Protection: If the process is such that salt dust is generated, a disposable face mask should be worn.

Environmental Exposure Controls: Contain any spillage. Avoid discharges to the environment where possible.

Environmental Exposure Controls: Avoid release to the environment.

[cont…]

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Appearance:	White/colourless crystalline solid
Odour:	Odourless
Odour threshold:	Not applicable
pH:	10.0 approx. (10% solution)
Melting point:	802°C
Boiling point:	1413°C
Flash point:	Non flammable
Evaporation rate:	No data
Flammability:	Non flammable
Upper flammability limit:	Non flammable
Lower flammability limit:	Non flammable
Vapour pressure:	2.4 mm Hg @ 747°C
Vapour density:	Not applicable
Relative density:	Up to 2.165 g cm-3 @ 20°C
Water solubility:	3.59 g/100 g @ 0°C; 39.2 g/100g @ 100°C
Partition coefficient:	Not applicable
Auto-ignition temperature:	Non flammable
Decomposition temperature:	No available data
Viscosity:	Not applicable (solid)
Explosive properties:	Not applicable
Oxidising properties:	Not applicable

10. STABILITY AND REACTIVITY

Reactivity: Reacts with strong sulphuric acid or nitric acid.

Chemical stability: Stable under normal storage and handling conditions.

Possibility of hazardous reactions: Reacts with strong sulphuric acid or nitric acid.

Conditions to avoid: Control with strong sulphuric acid or nitric acid (hydrogen chloride gas is emitted).

Materials to avoid: Under wet conditions can corrode many common metals particularly iron, aluminium and zinc.

Hazardous decomposition products: Trace amounts of hydrogen chloride gas may be evolved at temperatures in excess of 800°C.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects: High concentrations of dust may be irritant to the respiratory tract Oral LD50, rat 3000 mg/kg. May cause vomiting and diarrhoea. The swallowing of small amounts is unlikely to have any adverse effects. Salt is an essential constituent of the diet and provides important body electrolytes and is the source of hydrochloric acid present in gastric juices. The blood stream contains nearly 1% sodium chloride.

[cont…]

Skin:	Repeated or prolonged contact may result in dryness leading to mild irritation.
Eyes:	Dust may cause irritation.
Mutagenicity:	Not considered to be a mutagen.
Carcinogenicity:	Not considered to be a carcinogen.
Reproductive toxicity:	No reproductive effects have been identified.
Long term exposure:	Repeated ingestion of excessive amounts may cause disturbance of body electrolyte and fluid balance.

12. ECOLOGICAL INFORMATION

Toxicity: A maximum value of 412 mg/l ensures the protection of all aquatic life (Source: Water Research Centre – September 1990).
Acute aquatic toxicity (Fish) 96h LC50: 6750 mg/l
Acute aquatic toxicity (Daphnia) 48 hr EC50: 2024 mg/l
Acute aquatic toxicity (Algae) 72hr IC50: 3014 mg/l
Sub-acute aquatic toxicity (Fish): 433 mg/l
Sub-acute aquatic toxicity (Daphnia): 1062 mg/l
BOD 5 day: 0 mg/l
COD: 0 mg/l
Earthworm toxicity: 1000 hg/cm2

Persistence and degradability: **In water:** Not applicable (quickly dissociates)
In soil: Not applicable (inorganic substance)
In sediment: Not applicable (inorganic substance)

Bioaccumulative potential: No potential for bioaccumulation.

Mobility in soil: Predicted to have high mobility in soil due to its high solubility in water.

Results of PBT and vPvB assessment: According to Annex XIII of REACH Regulation, inorganic substances do not require assessment.

Other adverse effects: No other adverse effects identified.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:	If recycling spilled product is not practicable, dispose of in compliance with local or national regulations.
Packaging:	Where possible, recycling is preferred to disposal or incineration.

14. TRANSPORT INFORMATION

Not classified as dangerous goods in accordance with ADR/RID/IMDG/IATA.

[cont…]

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

Not classified as dangerous for supply or conveyance.

Note: The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Abbreviations and acronyms:

WEL : Workplace exposure limit.
TWA : Time Weighted Average.
PBT : Persistent, Bioaccumulative, Toxic.
vPvB : very Persistent, very Bioaccumulative.
ADR : European Agreement Concerning the International Carriage of Dangerous Goods by Road.
RID : International Rule for Transport of Dangerous Substances by Rail.
ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterway.
IMO/IMDG :International Maritime Organization/International Maritime Dangerous Goods Code.
ICAO/IATA :International Civil Aviation Organization/International Air Transport Association.

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.