

## Safety Data Sheet for all grades of Vacuum Salt (Sodium Chloride) (also applicable to all grades of compacted products)

### 1. Identification of the substance/preparation and of the company/undertaking

#### 1.1 Product identifier

Trade Name : Salt  
Substance Name : Sodium Chloride

#### 1.2 Relevant identified uses of the substance/preparation and uses advised against

Uses of the substance/preparation : Chemical manufacture, food industry, animal feed industry, water treatment

Uses advised against : Reacts with strong sulphuric acid or nitric acid to give hydrogen chloride gas

#### 1.3 Details of supplier of the safety data sheet

Address/Telephone No. : As on letterhead  
Email : [Lab@british-salt.co.uk](mailto:Lab@british-salt.co.uk)

#### 1.4 Emergency telephone No.

Emergency telephone : 01606-832881 (Office Hours)  
: 01606-839241 (Out of Hours)

### 2. Hazards identification

EC Classification : Not classified as Dangerous according to EC Directive 67/548/EEC

Hazards : Unlikely to cause harmful effects under normal conditions of handling and use

### 3. Composition/information on ingredients

Chemical identity	:	Sodium Chloride 99.9% minimum on dry basis. Composition by weight is 39.4% sodium and 60.6% chlorine. It is treated with part per million levels of a non-toxic anti-caking additive, Sodium hexacyanoferrate(II) - E535.
Common name	:	Salt
Synonyms	:	Halite
CAS number	:	7647-14-5
EC number	:	231-598-3

3.1 Hazardous Ingredient(s) : Contains no Hazardous Ingredients in accordance with EC Regulation 1907/2006

### 4. First aid measures:

<b>Inhalation</b>	Remove patient from exposure.
<b>Skin Contact</b>	Wash skin with water.
<b>Eye Contact</b>	Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes. If symptoms develop, obtain medical attention.
<b>Ingestion</b>	Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Obtain medical attention if ill effects occur.
<b>Further medical treatment</b>	Symptomatic treatment and supportive therapy as indicated.

### 5. Fire-fighting measures

<b>Extinguishing media</b>	Non-flammable. As appropriate for the surrounding materials/equipment
<b>Hazardous decomposition product(s)</b>	Salt withstands temperatures up to its melting point and beyond without decomposing, but at very high temperatures (greater than approximately 800°C) a vapour may be emitted which is particularly irritating to the eyes.
<b>Fire-fighting Protective Equipment</b>	No special requirements.

### 6. Accidental release measures

<b>Personal precautions:</b>	Avoid prolonged contact with the skin and inhalation of dust concentrations, otherwise normal good handling and housekeeping practice is adequate.
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No special protective clothing is required. An eyewash bottle with clean water should be available.

**Environmental precautions:**

Clear up spillages. Transfer to a container for disposal. Wash the spillage area with water. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environment Agency or other appropriate regulatory body.

**7. Handling and storage**

**7.1 Precautions for safe handling:**

Avoid prolonged skin contact. Atmospheric levels should be controlled in compliance with the occupational exposure limit. Keep away from strong acids and common metals. Salt dust 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.

**7.2 Storage:**

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**

**8.1 Control parameters**

Regulatory Basis	:	UK EH40 Workplace Exposure Limits (WELs)
Regulatory List	:	EH40 WEL
Long Term Exposure Limit	:	8 hr Time Weighted Average (TWA)
Total Inhalable Dust	:	10mg/m <sup>3</sup>
Respirable Dust	:	4mg/m <sup>3</sup>

**8.2 Engineering controls:**

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

**8.3 Personal protection:**

**Respiratory protection:**

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

**Hand protection:**

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:** Skin should be washed to remove salt. Dry salt and concentrated solutions can cause withdrawal of fluid from the skin.

**Other protective measures** An eyewash and hand washing facilities should be readily available.

## 9. Physical and chemical properties.

Form	:	Crystalline solid
Colour	:	White / Colourless
Odour	:	Odourless
pH	:	10.0 approx. (10% solution)
Boiling Point	:	1413°C
Melting Point	:	802°C
Flash Point	:	Non-flammable
Flammability	:	Non-flammable
Explosive Properties	:	Non-flammable
Oxidising Properties	:	Non-flammable
Vapour Pressure	:	2.4mm Hg at 747°C
Density	:	Up to 2.165 g cm <sup>-3</sup> at 20°C
Solubility (Water)	:	35.9 g/100g at 0°C ; 39.2 g/100g at 100°C)
Viscosity	:	Not applicable
Vapour Density	:	Not applicable

## 10. Stability and Reactivity

**Chemical Stability** : Stable

**(a) Conditions to avoid:** Reacts with strong sulphuric acid or nitric acid to give hydrogen chloride gas.

**(b) Material to avoid:** Under wet conditions can corrode many common metals, particularly iron, aluminium and zinc. Stainless steel and Monel resist attack. Does not react with alkalis at ordinary temperatures.

**(c) Thermal decomposition products:** Trace amounts of hydrogen chloride gas may be evolved at temperatures in excess of 800°C. Contains no water of crystallisation.

**(d) Flammability** Not flammable

**(e) Ignition sensitivity** Not applicable

**(f) Explosive severity** Not explosive. Static electricity can be generated by pneumatic conveying; therefore pipes should be bonded and earthed, especially in environments where a spark could prove hazardous.

## 11. Toxicological Information

- Inhalation:** High concentrations of dust may be irritant to the respiratory tract.
- Ingestion:** 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. It provides important body electrolytes and is the source of hydrochloric acid present in the gastric juices. The blood stream contains nearly 1% sodium chloride. In normal industrial use salt is Non-hazardous. LD50 3000mg/kg oral, rat.
- Skin:** Repeated or prolonged contact may result in dryness leading to mild irritation.
- Eyes:** Dust may cause irritation.
- Carcinogenicity:** Not considered to be a carcinogen.
- Mutagenicity:** Not considered to be a mutagen.
- Reproductive Effects:** None identified.
- Long Term Exposure:** Repeated ingestion of excessive amounts may cause disturbance of body electrolyte and fluid balance.

## 12. Ecological Information

### 12.1 Toxicity

A maximum value of 412 mg/l ensures the protection of all aquatic life.

Source: Water Research Centre - September 1990

96 hour	LC 50 (Fish)	6750 mg/l
48 hour	EC 50 (Daphnia)	2024 mg/l
72 hour	IC 50 (Algae)	3014 mg/l
	Daphnia Subacute	1062 mg/l
	Fish Subacute	433 mg/l
	BOD 5 Day	0 mg/l
	COD	0 mg/l
	Earthworm Toxicity	1000 hg/cm <sup>2</sup>

### 12.2 Persistence and degradation

No data available.

### 12.3 Bioaccumulative potential

No potential for bioaccumulation.

### 12.4 Mobility in soil

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

**13. Disposal Considerations**

Disposal should be in accordance with local, state or national legislation.

**14. Transport Information**

Not Classified as Dangerous for Transport.

U.N. Number : Not listed

**15. Regulatory Information**

Not Classified as Dangerous for Supply/Use.

**EEC Classification:**

Under the Classification, Packaging and Labelling of Dangerous Substances Regulations, 1984, this material is not dangerous for supply or conveyance.

**16. Other Information (none)**

This safety data sheet was prepared in accordance with EC Regulation 1907/2006.

Information in this publication is believed to be accurate and is given in good faith, but it is for the Customer to satisfy itself of the suitability for its own particular purpose.

The following sections contain revisions or new statements: 1, 3, 6, 9, 12 and 16

**Last reviewed February 2011**