

Product : SALT  
Issue Number : 6  
Issue Date : 17-06-2011  
Supersedes : Issue No.5 dated: February 2011  
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# BRITISH SALT

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product Identifier

Product Name : SALT  
Chemical Name : Sodium chloride  
Alternative Name : Vacuum salt, Compacted salt, Halite  
Chemical Formula : NaCl  
Trade Names :  
CAS Number : 76417-14-5  
EC Number : 231-598-3  
REACH Registration Number : Exempted from Registration according to Article 2 (7)b and Annex V of REACH

1.2 Relevant identified uses of the substance : Chemical manufacture, food industry, animal feed industry, water treatment

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

### 1.3 Company Details

Company Name : British Salt Limited  
Address : Tata Chemicals Europe Limited  
Cledford Lane  
Middlewich  
Cheshire  
CW10 0JP  
  
Telephone : +44 (0)1606 832881  
Fax : +44 (0)1606 835999  
Web : www.british-salt.co.uk  
www.tatachemicals.com/europe  
E-mail address of competent person : msds-tce@tatachemicals.com

### 1.4 Emergency Telephone

Emergency Telephone No. (Office hours) : +44 (0)1606 832881  
(Out of hours) : +44 (0)1606 839241

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance

#### 2.1.1 Classification according to Regulation (EC) 1272/2008

- Not Classified

#### 2.1.2 Classification according to the Dangerous Substances Directive 67/548/EEC

- Not Classified

### 2.2 Labelling elements

#### 2.2.1 Labelling according to Regulation (EC) 1272/2008

- No labelling requirements

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### 2.2.1 Labelling according to the Dangerous Substances Directive 67/548/EEC

- No labelling requirements

### 2.3 Other hazards

- unlikely to cause harmful effects under normal conditions of handling and use

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substance

| Main constituent | Formula | CAS Number | EC Number | Wt. Percent              |
|------------------|---------|------------|-----------|--------------------------|
| Sodium Chloride  | NaCl    | 7647-14-5  | 231-598-3 | >99.9%w/w (on dry basis) |

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

### 3.2 Hazardous Ingredients

- contains no Hazardous Ingredients in accordance with EC Regulation 1907/2006

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General advice

- no known delayed effects

#### Following inhalation

- remove patient from exposure

#### Following skin contact

- wash skin with water

#### Following 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

#### After 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

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing Media

#### 5.1.1 Suitable extinguishing media

- the product is non-flammable
- use extinguishing measures that are appropriate to local circumstances and the surrounding environment

#### 5.1.2 Unsuitable extinguishing media

- none

### 5.2 Special hazards arising from the substance

- 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

### 5.3 Advice for firefighters

- no special precautions required

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## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Precautions

#### 6.1.1 For non-emergency personnel

- 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

### 6.2 Environmental Precautions

- spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environment Agency or other appropriate regulatory body

### 6.3 Methods for containment and clean 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

## 7. HANDLING AND STORAGE

### 7.1 Precautions for Safe Handling

#### 7.1.1 Protective measures

- 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)

#### 7.1.2 Advice on general occupational hygiene

- normal good handling and housekeeping practice is adequate

### 7.2 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

### 8.1 Control parameters

#### 8.1.1 Occupational Exposure Limits

- listed by H&SE (Guidance Note EH40)
- WEL Recommended Limits: Total Inhalable Dust is: 10mg/m<sup>3</sup> (8hr TWA)  
Respirable Dust is : 4mg/m<sup>3</sup> (8hr TWA)

### 8.2 Exposure Controls

#### 8.2.1 Appropriate 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

#### 8.2.2 Personal protection

##### 8.2.2.1 Eye/face protection

- wear chemical safety goggles in situations where contact with the eyes may occur

##### 8.2.2.2 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

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#### 8.2.2.3 Skin/body protection

- no special protective equipment required
- skin should be washed to remove salt

#### 8.2.2.4 Respiratory protection

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

#### 8.2.3 Environmental exposure controls

- contain any spillage
- avoid discharges to the environment where possible

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 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 <sup>o</sup> c  |
| Boiling point             | : 1413 <sup>o</sup> c   |
| Flash point               | : non-flammable   |
| Evaporation rate          | : no data   |
| Flammability              | : non-flammable   |
| Upper flammability limit  | : non-flammable   |
| Lower flammability limit  | : non-flammable   |
| Vapour pressure           | : 2.4mm Hg @ 747 <sup>o</sup> c                                     |
| Vapour Density            | : not applicable  |
| Relative density          | : up to 2.165 g cm <sup>-3</sup> @20 <sup>o</sup> c                 |
| Water solubility          | : 35.9 g/100g @ 0 <sup>o</sup> c ; 39.2 g/100g @ 100 <sup>o</sup> 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

#### 10.1 Reactivity

- reacts with strong sulphuric acid or nitric acid

#### 10.2 Chemical Stability

- stable under normal storage and handling conditions

#### 10.3 Possibility of hazardous reactions

- reacts with strong sulphuric acid or nitric acid

#### 10.4 Conditions to avoid

- contact with strong sulphuric acid or nitric acid (hydrogen chloride gas is emitted)

#### 10.5 Materials to avoid

- under wet conditions can corrode many common metals, particularly iron, aluminium and zinc

#### 10.6 Hazardous decomposition products

- trace amounts of hydrogen chloride gas may be evolved at temperatures in excess of 800<sup>o</sup>c

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute Toxicity

Inhalation : high concentrations of dust may be irritant to the respiratory tract  
Ingestion : Oral LD<sub>50</sub>, 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

**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

### 12.1 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)       | 96hr-LC <sub>50</sub> | : 6750 mg/l               |
| Acute aquatic toxicity (Daphnia)    | 48hr-EC <sub>50</sub> | : 2024 mg/l               |
| Acute aquatic toxicity (Algae)      | 72hr-IC <sub>50</sub> | : 3014 mg/l               |
| Subacute aquatic toxicity (Fish)    |                       | : 433 mg/l                |
| Subacute aquatic toxicity (Daphnia) |                       | : 1062 mg/l               |
| BOD 5 day                           |                       | : 0 mg/l                  |
| COD                                 |                       | : 0 mg/l                  |
| Earthworm toxicity                  |                       | : 1000 hg/cm <sup>2</sup> |

### 12.2 Persistence and degradeability

- In water : Not applicable (quickly dissociates)
- In soil : Not applicable (inorganic substance)
- In sediment : Not applicable (inorganic substance)

### 12.3 Biocummulative potential

: No potential for bioaccumulation

### 12.4 Mobility in Soil

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

### 12.5 PBT and vPvB assessment

: According to Annex XIII of REACH Regulation, inorganic substances do not require assessment

### 12.6 Other adverse effects

: No other adverse effects are identified

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### 13. DISPOSAL CONSIDERATIONS

#### 13.1 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

Salt (sodium chloride) is not classified as hazardous for transport

#### 14.1 UN Number

- not listed

#### 14.2 UN proper shipping name

- not regulated

#### 14.3 Transport hazard class

|                             |                    |                |
|-----------------------------|--------------------|----------------|
| - Land Transport            | : ADR/RID          | not restricted |
| - Inland Waterway Transport | : ADN              | not regulated  |
| - Sea Transport             | : IMO/IMDG         | not regulated  |
| - Air Transport             | : ICAO-TI/IATA-DGR | not regulated  |

### 15. REGULATORY INFORMATION

#### 15.1 Safety, health and environmental regulations

- Not classified as dangerous for supply or conveyance

### 16. OTHER INFORMATION

#### 16.1 Indication of changes

(a) The new Issue updates the Safety Data Sheet in accordance with Annex II of the REACH Regulation (EC) 1907/2006 and also to include the Classification, Labelling and Packaging (CLP) Regulation (EC) 1272/2008

(b) Section 1 – change of company ownership and certain contact details

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#### 16.2 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              |

#### 16.3 Further information

##### 16.3.1 **The substance(s) covered in this document do not legally require a Safety Data Sheet (SDS).**

16.3.2 The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid.

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