

## Material Safety Data Sheet

### 1. Identification of Substance

Product Name: Granular Salt  
Chemical name: Sodium Chloride  
CAS No: 7647/14/5  
EINECS No: 231-598-3  
Formula: NaCl

### 2. Identification of company

Darlingtons Group Limited  
Bankfields Drive, Eastham,  
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### 3. Composition

Granular salt  
Sodium Chloride 99.8%

### 4. Physical and chemical properties

Physical State: White granular crystals, odourless  
Boiling Point: 1413°C  
Melting Point: 801°C  
Density: 0.9 - 1.1gm/ml  
Water Solubility: at 200oC 360 g/l

### 5. Hazards identification

**Inhalation** Very high concentrations of salt dust may result in inflammations of the mucus membranes of the respiratory tract.

**Skin contact** Dry salt and concentrated solutions can cause withdrawal of fluid from the skin and may, on prolonged contact produce irritation.

**Eye contact** Salt and salt solutions are not toxic to the eye but concentrations much above that of tears cause a stinging sensation.

**Ingestion** Acute and chronic toxic effects can result from the ingestion of excessive amounts of either salt or brine. Salt should not be used as an emetic to induce vomiting. High concentrations produce inflammatory reactions in the gastrointestinal tract and can cause vomiting, diarrhoea, convulsions and collapse. The ingestion of hypertonic solutions can cause fatal of body electrolyte and fluid balance particularly in the young and the elderly. Less than a tablespoon of salt may severely poison an infant and sometimes prove fatal.

### 6. First aid measures

**Inhalation** Remove patient to fresh air. Keep warm and at rest. Give drinks if desired.

**Ingestion** Vomiting will probably occur. Provided that the patient is conscious give plenty of liquid to drink. Obtain immediate medical attention especially if vomiting has not occurred.

**Eye contact** Irrigate with eyewash solution or water. If symptoms develop obtain medical help.

**Skin contact** Wash with plenty of water.

## 7. Fire fighting measures

<b>Flammability</b>	Non-flammable
<b>Extinguishing Agents</b>	Use agents suitable for type of surrounding fire (dry chemical, CO2, water, spray or foam).
<b>Special hazards</b>	Salt withstands temperatures up to its melting point 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>Protective equipment</b>	As applicable to the combustion products associated with the fire.

## 8. 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. No special protective clothing is required. An eyewash bottle with clean water should be made available.
<b>Spillages</b>	Spillages should be swept up or may be safely water hosed to drain under normal circumstances.

## 9. Handling & Storage

<b>Handling</b>	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.
<b>Storage</b>	Due to its hygroscopic nature, salt should be stored in a dry atmosphere and away from concentrated acids. It will absorb moisture if the relative humidity is above 75%.

## 10. Exposure controls

<b>Occupational exposure limits</b>	As total dust 10mg/m <sup>3</sup> (8hr TWA) As respirable dust 5mg/m <sup>3</sup> (8hr TWA)
<b>Dangerous exposure</b>	None specified
<b>Engineering controls</b>	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. Personal protection

<b>Respiratory protection</b>	If the process is such that salt dust is generated, a disposable facemask should be worn.
<b>Hand protection</b>	Gloves should be worn if prolonged contact is anticipated. Dry salt and concentrated solutions can cause withdrawal of fluid from the skin.
<b>Eye Protection</b>	Wear chemical safety goggles in situations where contact with the eyes may occur.
<b>Skin Protection</b>	Skin should be washed to remove salt. Dry salt and concentrated solutions can cause withdrawal of fluid from the skin.
<b>Other protective measures</b>	An eyewash and hand washing facilities should be readily available.

## 12. Stability and reactivity

<b>Chemical stability</b>	Stable
<b>Conditions to avoid</b>	Reacts with strong sulphuric acid or nitric acid to give hydrogen chloride gas.
<b>Material to avoid</b>	Under wet conditions salt can corrode many common metals, particularly iron, aluminium and zinc.
<b>Hazard decomposition products</b>	Trace amounts of hydrogen chloride gas may be evolved at temperatures in excess of 800°C. Contains no water of crystallisation. Does not react with alkalis at ordinary temperatures.

## 13. Toxicological information

<b>Eyes</b>	Dust may be irritating.
<b>Skin</b>	Irritation after prolonged contact.
<b>Ingestion</b>	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
<b>Inhalation</b>	Dusts may be irritating.
<b>Carcinogenicity</b>	Not considered to be a carcinogen.
<b>Mutagen city</b>	Not considered to be a mutagen.
<b>Reproductive effects</b>	None identified.

## 14. Disposal considerations

Disposal should be in accordance with local or national regulations.

## 15. Transport information

Material not included in the list of substances dangerous for supply. Material not included in the list of substances dangerous for conveyance by road.

## 16. Regulatory information

User: not classified as hazardous to users.

## 17. EEC Classification

Under the classification, packaging and labelling of dangerous substances regulations, 1984, this material is not dangerous for supply or conveyance