



# HARRIS FILTERS SODIUM CHLORIDE

## MATERIAL SAFETY DATA SHEET

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

Product Name: Sodium Chloride

Company Identification: Harris Filters  
42 & 43 Zoar Street  
Lower Gornal  
Dudley  
West Midlands  
DY3 2PA, UK  
Tel: 01384 253073

### 2. Composition/Information on ingredients

Alternative Name: Salt

Chemical formulae: NaCl

Name	CAS No.	EINECS No.
Sodium Chloride	7647-14-5	231-598-3

### 3. Hazard Identification

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

**Skin contact:** Dry salt and concentrated solutions can cause of withdrawal of fluid from 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 concentration produce inflammatory reactions in the gastrointestinal tract and can cause vomiting, diarrhoea, convulsions and collapse. The ingestion of hypertonic solutions and cause fatal disturbances of body electrolyte and fluid balance, particularly in the young and elderly. Less than tablespoon of salt may severely poison an infant and sometimes prove fatal.

### 4. First Aid Measures

**Inhalation** Move to fresh air. Keep warm and rest. Give drinks if desired.

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

Eye Contact: Irrigate with eye wash solution or clean water. If symptoms develop obtain medical attention.

Skin Contact: Wash with plenty of water.

Most important symptoms and effects, both acute and delayed:

No further relevant information

Indication of any immediate medical attention and special treatment needed:

No further relevant information

### 5. Fire Fighting Measures

Fire extinguishing media: Use agents suitable for type of surrounding: water spray, CO<sub>2</sub>, dry chemical or foam.

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

Advice for firefighters: As applicable to the combustion products associated with the fire.

### 6. Accidental Release Measures

Spillage: Spillage should be swept up or may be safely water hosed to drain under normal circumstances.

Personal Protection: 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 available.

### 7. Handling & Storage

Handling: 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.

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 above 75%.

### 8. Exposure Controls/Personal Protection

Occupational exposure limits: As total dust 10 mg/m<sup>3</sup> (8 hr TWA)  
As respirable dust 5mg/m<sup>3</sup> (8 hr TWA)  
None specified

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

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 and body protection	Skin should be washed to remove salt. Dry salt and concentrated solutions can cause withdrawal of fluid from skin.
Other protective measures	An eyewash and hand washing facilities should be readily available.

## 9. Physical & Chemical Properties

Physical and chemical properties	Value
Appearance	Granular crystals
Colour	White
Boiling point	1413C
Melting point/range	801C
Density	1.1 gm/ml
Solubility in water	360g/l @ 200C

## 10. Stability & Reactivity

Stability	Stable
Hazardous decomposition products	Trace amounts of hydrogen chloride gas may be evolved at temperatures in excess of 800C. Contains no water on crystallisation. Does not react with alkalis at ordinary temperatures.
Conditions to avoid	Reacts with strong sulphuric acid or nitric acid to give hydrogen chloride gas.
Incompatible materials	Under wet conditions can corrode many common materials, particularly iron, aluminium and zinc. Stainless steel resists attack.

## 11. Toxicological Information

Eyes	Dust may be irritating
Skin	Irritation after prolonged contact
Ingestion	Salt is an essential constitute 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 not hazardous.
Inhalation	Dusts may be irritating
Carcinogenicity	Not considered to be carcinogen
Mutagenicity	Not considered to be a mutagen
Reproductive effects	None identified

## 12. Ecological Information

A maximum value of 412 mg/l ensures the protection of all aquatic life. Source: Water research Centre – September 1990.

Toxicity to fish	LC50	96 hrs	6750	Mg/l	
Toxicity to daphnia	EC50	48 hrs	2024	Mg/l	Daphnia magna
Toxicity to algae	IC	72 hrs	3014	Mg/l	
Daphnia Sub Acute			1062	Mg/l	
Fish Sub acute			433	Mg/l	
BOD 5 day			0	Mg/e	
COD			0	Mg/e	
Earthworm toxicity			1000	Hg/cm2	

### 13. Disposal Consideration

Disposal should be in accordance with local regulations.

### 14. Transport Information

The product is not classified as dangerous (nor regulated) for transport.

### 15. Regulatory Information

The product is not classified as dangerous for supply or conveyance.

Harris Filters has compiled the information contained in this data sheet to the best of its own knowledge and of available reliable data.

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