

**Salt tablets - Sodium Chloride  
for water softening**

 According to Regulation:  
(EC) 1907/2006

**SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**
**1.1 Product identifier**

 Trade name : Salt tablets for water softening  
 Synonyms : Art. 231265  
 CAS number : 7647-14-5  
 EC number : 231-598-3

**1.2 Relevant identified uses and uses advised against**

 Relevant identified uses : Industrial; water treatment plants  
 Uses advised against : undefined

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

 : Hendi b.v., Steenoven 21, 3911 TX Rhenen, Nederland  
 tel: +31 (0)317 681040  
 info@hendi.eu  
 www.hendi.eu

**1.4 Emergency telephone number** : NL NVIC Poison Centre: +31 (0)30 2748888 (only for medical personnel in case of acute or unintentional poisoning).

**SECTION 2. HAZARDS IDENTIFICATION**
**2.1 Classification of the substance or mixture**

 EC Index number : 231-598-3  
 CLP Regulation (EC 1272/2008) : Not classified as a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

**2.2 Label elements**

 CLP Regulation (EC 1272/2008)  
 Pictogram(s) : none  
 Signal word : none  
 Hazard statement(s) : none  
 Precautionary statement(s) : none

**2.3 Other hazards** : The product does not contain ingredients that meet the criteria for PBT or vPvB in accordance with Annex XIII.  
 The ability to create a cloud of dust from the mixture.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**
**3.1 Substance:**

Chemical name	CAS number	EC number	Index number	Registration number	%
Sodium chloride	7647-14-5	231-598-3	---	-	≥99,0
Lead	7439-92-1	231-100-4	---	-	Max. 0,001
Arsenic	7440-38-2	231-148-6	033-001-00-X	-	0,0005
Cadmium (non-pyrophoric)	7440-43-9	231-152-8	048-002-00-0	-	0,00005
Mercury	7439-97-6	231-106-7	080-001-00-0	-	0,00003

**Salt tablets - Sodium Chloride  
for water softening**

 According: Regulation:  
(EC) 1907/2006

<b>Additionally product contain:</b> Water (105 °C)					Max. 0,5
Insoluble in water					Max. 0,05
Anti-caking agent E 536 (K4 [Fe (CN) 6])					Max. 0,003
<b>Chemical formula:</b>					NaCl
<b>Structural formula:</b>					Na <sup>+</sup> Cl <sup>-</sup>

**SECTION 4. FIRST AID MEASURES**
**4.1 Description of first aid measures**
**Exposure routes:**

Respiratory tract, digestive tract, skin contact, eye contact.

**Inhalation:**

Remove person to fresh air and keep comfortable for breathing.

Ensure warmth and calm.

Provide medical assistance if necessary.

**If swallowed:**

Do not induce vomiting.

Rinse mouth with water.

If unconscious – do not give the person anything to swallow.

Transport the injured person to a hospital if necessary.

**Eye contact:**

Remove contact lenses.

Rinse contaminated eyes with lukewarm water for 10-15 minutes with the eyelids rolled back. Make the upper eyelid overlap the lower one from time to time.

Provide medical assistance if necessary.

**Skin contact:**

Remove contaminated clothing immediately.

Clean contaminated skin, wash with plenty of water, then wash with water and mild soap.

If skin irritation persists, consult a doctor.

**4.2 Most important symptoms and effects, both acute and delayed**

High dust concentration of the substance may cause mechanical irritation of the skin, eyes and respiratory tract. Consumption of large amounts may cause nausea and vomiting.

**4.3 Indication of any immediate medical attention and special treatment needed**

Symptomatic treatment.

At the workplace should be available for first aid measures.

**SECTION 5. FIREFIGHTING MEASURES**
**5.1 Extinguishing media**
**Suitable extinguishing media:**

 Fire-fighting foam, carbon dioxide CO<sub>2</sub>, fire-extinguisher powders, dispersed water

Use appropriate extinguishing media to extinguish fires in the vicinity.

**Unsuitable extinguishing media:**

Do not direct dense jets of water onto the surface of a burning product.

**Salt tablets - Sodium Chloride  
for water softening**According to Regulation:  
(EC) 1907/2006**5.2 Special hazards arising from the substance or mixture:****Combustion products**

Toxic thermal decomposition products, chlorine, hydrogen chloride, sodium oxide, may be generated during combustion.

**Explosive mixtures:**

Some components may form explosive mixtures with air under favourable thermal conditions.

**5.3 Advice for firefighters:**

Use standard firefighting methods for extinguishing chemical fires.

Use water to cool containers exposed to high temperatures, and if possible, remove them from the area affected.

Use water spray jets to disperse vapours.

**Fire-fighter protective equipment:**

Full personal protective equipment.

Self-contained breathing equipment.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment & emergency procedures:**

Provide adequate ventilation. Avoid contact with eyes and skin. Wear appropriate protective equipment. Remove all sources of ignition. Keep all persons not equipped with personal protection equipment away.

In case of a discharge of a significant volume of the mixture, warn its users and order all bystanders to leave the contaminated area.

Risk of slipping on spilt product.

**6.2 Environmental precautions:**

Prevent environmental contamination.

Protect drains.

In case of serious contamination of soil, watercourse or sewage system, notify the appropriate authorities.

**6.3 Methods and material for containment and cleaning up:**

Secure any damaged packaging.

Ventilate the area affected and avoid inhaling vapours.

Collect mechanically. Larger amounts of the substance, collect it with the use of industrial vacuum cleaners to replaceable tight packaging and hand over for possible management or destruction.

Sweep up and shovel. Keep in suitable, closed containers for disposal. Place all contaminated mass collected in a substitute container and send it for disposal in accordance with the local regulations.

Rinse the contaminated surface with plenty of water.

**6.4 Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection

See Section 13 for disposal information.

**SECTION 7. HANDLING AND STORAGE****7.1 Precautions for safe handling:****Recommendations for handling the mixture:**

Provide adequate ventilation.

Avoid contact with eyes and skin.

Avoid generating dust.

Avoid inhaling dust.

**General industrial health and safety regulations:**

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

Replace contaminated clothing.

Wash contaminated clothing before reusing.

The general rules of industrial hygiene apply.

**Salt tablets - Sodium Chloride  
for water softening**

 According: Regulation:  
(EC) 1907/2006

**7.2 Conditions for safe storage, including any incompatibilities:**

Storage rooms must be ventilated.  
 Keep container tightly closed.  
 Store in a dry and cool place.  
 Keep only in the original container.  
 Keep away from sunlight, as well as heat and ignition sources.  
 Do not store together with foodstuffs and animal feed.  
 Protect against moisture.  
 Read the material safety data sheet.

**7.3 Specific end use(s):**

No data available.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**8.1 Control parameters**

**Ingredients with limit values that require monitoring at the workplace:**

Name of the chemical agent	CAS	mg/m <sup>3</sup> ppm	Notation
Other non-toxic industrial dust - total dust		10 mg/m <sup>3</sup> TWA	
Lead and its inorganic compounds - as a Pb	7439-92-1	0.05 mg/m <sup>3</sup> TWA	
Arsenic and its inorganic compounds - as a As	7440-38-2	0.01 mg/m <sup>3</sup> TWA	
Cadmium and its inorganic compounds - as a Cd – dust and gases	7440-43-9	0.01 mg/m <sup>3</sup> TWA	0.002 TWA (respirable fraction)
Mercury and its inorganic compounds - as a Hg	7439-97-6	0.05 mg/m <sup>3</sup> TWA (vapor)	10 mg/m <sup>3</sup> IDLH

**Maximum concentrations in biological material (DSB)**

Lead and inorganic lead compounds	Lead	blood	400 µg/l
	ZPP zinc protoporphirin	blood	700 µg/l
	delta-aminolevulinic acid	urine	8 mg/l
Arsenic	Arsenic	urine	35 µg/l
Cadmium	Creatinine	blood	10 µg/g
	Cadmium	blood	5 µg/l
Mercury	Creatinine	urine	35 µg/g

**8.2 Exposure controls**
**Appropriate engineering controls:**

Workstations and storage rooms must be well ventilated to keep the dust/vapour concentrations in the air below their limit values.

**Individual protection measures**

**Eye or face protection:**

Use safety goggles compliant with the EN 166 standard. Eye wash bottle with clean water or eye washers must be provided near the work area.

**Skin protection**

**Hand protection:**

In case of danger, use chemical-resistant protective gloves compliant with the EN 374 standard.

Select glove material based on breakthrough time, rate of penetration and degradation.

It is recommended to change gloves regularly and immediately replace them if they have any signs of wear, damage (tears, holes) or their appearance changes (colour, flexibility, shape).

**Salt tablets - Sodium Chloride  
for water softening**

 According: Regulation:  
(EC) 1907/2006

**Body protection:**

The type of protective equipment must be selected based on the quantity and concentration of hazardous substances in the given work environment.

**Respiratory protection:**

In case of hazard due to the mixture vapours levels exceeding allowable levels in the air (e.g. due to ventilation failure), wear respiratory protection equipment

Use dust masks with filters compliant with the EN 149 standard when exposed to excessive dust.

**Environmental exposure controls:**

Do not discharge into drains and groundwater.

**General health and safety guidelines:**

Follow good personal hygiene practices.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**
**9.1 Information on basic physical and chemical properties**

Physical state	: solid in the form of briquettes, taste salty
Colour	: white
Odour	: odourless
Melting point / freezing point	: ok. 800.7 – 801°C (Sodium chloride)
Boiling point or initial boiling point and boiling range	: ok. 1413 – 1465°C (Sodium chloride)
Flammability	: no data available
Lower and upper explosion limit	: no data available
Flash point	: no data available
Auto-ignition temperature	: no data available
Decomposition temperature	: ≥801°C
pH	: 6,0 - 8,0 (1 % solution / 20°C)
Kinematic viscosity	: no data available
Solubility	: ok. 357 g/l (0°C), 360 g/l (20°C), 391 g/l (100°C) Soluble in glycerol, ethylene glycol, and formic acid, low in ethanol, methanol - 14.9 g/l, in liquid ammonia - 21.5 g/l/
Partition coefficient n-octanol/water (log value)	: no data available
Vapour pressure	: ok. 1.3 mm Hg w 865°C
Density and/or relative density	: ok. 2.165 – 2.17 g/cm <sup>3</sup> (Sodium chloride)
Relative vapour density	: no data available
Particle characteristics	: no data available

**9.2 Other information**

Information with regard to physical hazard classes: no data available

Other safety characteristics: in water, it is corrosive to most metals

**SECTION 10. STABILITY AND REACTIVITY**
**10.1 Reactivity:**

Not reactive if used according to specification.

**10.2 Chemical stability:**

Under normal storage and use of the substance is chemically stable.

**10.3 Possibility of hazardous reactions:**

The mixture formulated explosive mixture with air.

<b>Safety data sheet</b>	Page: 6 of 9
	Issue date: 10-02-2021
<b>Salt tablets - Sodium Chloride for water softening</b>	
	According: Regulation: (EC) 1907/2006

#### 10.4 Conditions to avoid:

Avoid sources of ignition, heat electrical sparks. High temperature (under fire conditions and high temperature (> 801°C) may occur Hazardous Decomposition Products: Chlorine, hydrogen chloride, sodium oxide).

Moisture (substance may become lumpy).

#### 10.5. Incompatible materials:

Avoid contact with Bromine trifluoride, lithium.

#### 10.6 Hazardous decomposition products:

No data available.

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity

Sodium chloride (CAS No. 7647-14-5) :  
 LD<sub>50</sub> (rat): 3000 mg/kg  
 LD<sub>50</sub> (oral, mouse): 4000 mg/kg  
 LDLo (oral, rabbit): 8 g/kg  
 LDLo (subcutaneous guinea pig): 2160 mg/kg

Skin corrosion/irritation	: Based on available data, the classification criteria are not met.
Eye damage/ irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Based on available data, the classification criteria are not met.
STOT- single exposure	: Based on available data, the classification criteria are not met.
STOT- repeated exposure	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.

#### Routes of exposure:

Inhalation, ingestion, skin contact, eye contact.

#### Local effects:

##### Contact with skin:

Dust may cause slight irritation. May be irritating to the damaged skin.

##### Eye contact:

Salt dust may cause slight redness and itching eyes. Direct contact with eyes may cause mild irritation, redness and pain (for concentrations higher than the concentration of saline - 0.9% NaCl solution in water).

##### Inhalation:

Dust may cause slight irritation of the mucous membranes of the nose and throat, cough, jerky breath. This may result in irritation and bronchopneumonia. As a result of inhalation of redness of the face, nausea, shortness of breath and cough.

##### Ingestion:

Swallowing large amounts may cause a burning sensation in the throat with nausea. Ingestion of large amounts can cause vomiting, diarrhea. In most organs is congestion and dehydration. Hypertonic solutions may cause severe inflammatory reactions in the gastrointestinal tract.

### 11.2 Other information

: Endocrine disrupting properties: no data  
 Other information: no data

**Salt tablets - Sodium Chloride  
for water softening**
**SECTION 12. ECOLOGICAL INFORMATION**
**12.1 Toxicity:**

Acute toxicity Sodium Chloride (CAS no 7647-14-5)

LC<sub>50</sub> - fish (*Carassius auratus*) 7341 mg/l (96h)  
 LC<sub>50</sub> - fish (*Lepomis macrochirus*) 9675 mg/l (96h)  
 LC<sub>50</sub> - fish (*Pimephales promelas*) 7650 mg/l (96h)  
 LC<sub>50</sub> - fish (*Salmo gairdneri*) 11000 mg/l (96h)  
 LC<sub>50</sub> - fish (*Gambusia affinis*) 17550 mg/l (96h)  
 LC<sub>50</sub> - fish (*Cyprinus carpio*) 21500 mg/l (1h)  
 EC<sub>50</sub> - invertebrates (*Daphnia magna*) 3412 mg/l (24h)  
 LC<sub>50</sub> - invertebrates (*Snails*) 6200 mg/l (96h)  
 LC<sub>50</sub> - invertebrates (*Caddis flies*) 9000 mg/l (24h)  
 LC<sub>50</sub> - invertebrates (*Lymnea eggs*) 3412 mg/l (96h)  
 EC<sub>50</sub> - Algae (*Nitzschia sp.*) 2430 mg/l (5 days)

**12.2 Persistence and degradability:**

Maximum concentrations of sodium ions into water and the land - 800 mg/l, chloride - 1000 mg/l, sulfate - 500 mg/l, cyanide-free - 0.1 mg, potassium - 80 mg/l, iron - 10 mg/l .

Hydrolysis: Not applicable. Sodium chloride dissociates in water.

Biodegradation: Studies of biodegradation in the water, simulation studies on ultimate degradation in surface waters, simulation studies in sediments and soils are not carried out if the substance is inorganic.

**12.3 Bioaccumulative potential:**

Sodium chloride dissociates in water and both ions are components of the bodies of animals.

Octanol / water (Kow): N (sodium chloride is inorganic salt).

Bioconcentration factor (BCF): Not applicable (sodium chloride is inorganic salt).

**12.4 Mobility in soil:**

In water, sodium chloride is dissociated into ions of sodium and chloride ions. Chloride does not adsorb on particulates. Sodium ions can be adsorbed to soil particles.

**12.5 Results of PBT & vPvB assessment:**

The ingredients do not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH

**12.6 Endocrine disrupting properties:**

No data.

**12.7 Other adverse effects:**

No data.

**SECTION 13. DISPOSAL CONSIDERATIONS**
**13.1 Waste treatment methods**

- : Dispose of in accordance with current regulations.
- Recommendation:** Do not allow product to reach sewage system. Reutilise if possible or contact a waste processors for recycling or safe disposal.
- Waste disposal key:** In each case, you should contact the relevant authorities, or those companies legally authorized for elimination of waste.
- Uncleaned packaging:** The containers and packing materials contaminated with dangerous substances or preparations, have the same treatment as products.

**13.2 Other information**

- : **Waste code package:** 15 01 02 plastic packaging.

<b>Safety data sheet</b>	Page: <b>8 of 9</b>
	Issue date: 10-02-2021
<b>Salt tablets - Sodium Chloride for water softening</b>	
According: Regulation: (EC) 1907/2006	

## SECTION 14. TRANSPORT INFORMATION

	ADR/RID	IMDG	IATA
<b>14.1 UN number or ID number:</b>	---	---	---
<b>14.2 UN proper shipping name:</b>	---	---	---
<b>14.3 Transport hazard class(es):</b>			
<b>Label no:</b>	---	---	---
<b>14.4 Packing group:</b>	---	---	---
<b>14.5 Environmental hazards:</b>	---	---	---
<b>14.6 Special precautions for user:</b>		not relevant	
<b>14.7 Maritime transport in bulk according to IMO instruments:</b>		not relevant	

## SECTION 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation (EC)

REACH (EC 1907/2006)

- a) Substance of potential concern (Art.59) : Components are not included as substance of potential concern.
- b) Authorisation (Title VII) : Components are not included on authorisation list.
- c) Restrictions (Title VIII) : Components are not included on list of restrictions.

**15.2 Chemical safety assessment** : A Chemical Safety Assessment has been carried out for this substance.

## SECTION 16. OTHER INFORMATION

### 16.1 Revision comments

A vertical line in the left margin indicates that there is a relevant amendment from the previous version.

### 16.2 Abbreviations and acronyms used in the safety data sheet

#### Abbreviations and Acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulations Concerning the International Transport of Dangerous Goods by Rail

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

PP: Severe Marine Pollutant

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent



<b>Safety data sheet</b>	Page: <b>9 of 9</b>
	Issue date: 10-02-2021
<b>Salt tablets - Sodium Chloride for water softening</b>	
	According: Regulation: (EC) 1907/2006

**16.3 References and sources for data** : Safety data sheet manufacturer

#### **16.4 Other information and disclaimer**

All information given in this Safety Data Sheet is exclusively related to the product described and is provided assuming that the product will be used in a way and for the purposes as stated by the manufacturer. The information is based on our present state of knowledge and will be reviewed regularly. This Safety Data Sheet has only been set up with the intention to describe the safety aspects of the product and therefore should not be construed as guaranteeing specific properties of the product of concern or its suitability for a particular application. It is the user's own responsibility to take the precautionary measures described and also to take care that this information is complete and adequate for the use of this product. It is recommended to pass through the information in this Safety Data Sheet, whenever necessary in an adapted form, to all staff and interested parties of concern.

- *Changes, printing and typesetting errors reserved.*