## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product name: **SALT TABLETS - SODIUM CHLORIDE**

CAS 7647-14-5
WE 231-598-3

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Application: In water treatment systems, e.g. for the regeneration of ion exchangers and water softening, for the preparation of brine (26 % vol.) for the production of NaOCl used in the treatment and disinfection of water intended for human consumption. For the softening of water for water and steam boilers and water in central heating systems.

Uses advised against: Not for direct consumption.

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


Inowrocławskie Kopalnie Soli SOLINO Spółka Akcyjna
ul. Świętego Ducha 26 a
88-100 Inowrocław, Poland
tel.: +48 242569460
E-mail: solino@solino.pl
E-mail: sylwia.rzetelna@solino.pl


### 1.4. Emergency telephone number

+48 242569764 (07:00 ÷ 15:00)
European emergency number: 112

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008 (CLP)**
Not classified as a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

### 2.2. Label elements

Labeling according to Regulation (EC) No 1272/2008

**Signal word** none

**Pictograms** none

**Hazard statements**

None

**Precautionary statements**

None

**Additional information**
None

### 2.3. Other hazards

This substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

This substance does not have endocrine disrupting properties.
The ability to create a cloud of dust from the mixture.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

| Name of substance | Identifier | % weight |
|---|---|---|
| Sodium chloride | Index ---<br>CAS 7647-14-5<br>EINECS 231-598-3 | ≥99,0 |
| **Pollutants:** | | |
| Lead | Index ---<br>CAS 7439-92-1<br>EC 231-100-4 | max. 0.001 |
| Arsenic | Index 033-001-00-X<br>CAS 7440-38-2<br>EC 231-148-6 | 0.0005 |
| Cadmium (non-pyrophoric) | Index 048-002-00-0<br>CAS 7440-43-9<br>EC 231-152-8 | 0.00005 |
| Mercury | Index 080-001-00-0<br>CAS 7439-97-6<br>EC 231-106-7 | 0.00003 |
| **Additionally product contain:** | | |
| Water (105 °C) | | max. 0,5 |
| Insoluble in water | | max. 0,05 |
| Anti-caking agent E 536 (K4 [Fe (CN) 6]) | | max. 0,003 |
| **Chemical formula:** | | NaCl |
| **Structural formula**: | | $Na^+$ $Cl^-$ |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**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 $CO_2$, 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.

**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 and 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.

**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**

| | |
|---|---|
| Other non-toxic industrial dust - total dust | 10 mg/m³ TWA |
| Lead and its inorganic compounds - as a Pb | 0.05 mg/m³ TWA |
| Arsenic and arsenic compounds except arsine (as As) | 0.1 mg/m³ – (UK EH40/2005 Workplace exposure limits) |
| Cadmium and cadmium compounds except cadmium oxide fume, cadmium sulphide and cadmium sulphide pigments (as Cd) | 0.025 mg/m³ – (UK EH40/2005 Workplace exposure limits) |
| Mercury and divalent inorganic compounds including mercuric oxide and mercuric chloride (measured as mercury) | 0.02 mg/m³ – (UK EH40/2005 Workplace exposure limits) |

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

| | | | |
|---|---|---|---|
| Lead and inorganic lead compounds | Lead | blood | 400 µg/l |
| | ZPP zinc protoporfirin | blood | 700 µg/l |
| | delta-aminlewulinolic acid | urine | 8 mg/l |
| Arsenic | Arsenic | urine | 35 µg/l |
| Cadmium | Creatynine | blood | 10 µg/g |
| | Cadmium | blood | 5 µg/l |
| Mercury | Creatynine | 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).

**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:** | Write. |
| **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/cm³ (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 specifications.

**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.

**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 hazard classes as defined in Regulation (EC) No 1272/2008**

**Acute toxicity**
**Substances**
**Acute toxicity:**
Sodium chloride (CAS No. 7647-14-5)
$LD_{50}$ (rat): 3000 mg / kg
$LD_{50}$ (oral, mouse): 4000 mg / kg
$LDL_0$ (oral, rabbit): 8 g / kg
$LDL_0$ (subcutaneous guinea pig): 2160 mg / kg
**Skin corrosion/irritation**
Based on available data, the classification criteria are not met.
**Serious 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. Information on other hazards**

**Endocrine disrupting properties**

This substance does not have endocrine disrupting properties.

**Other information**

No data

## SECTION 12: Ecological information

**12.1. Toxicity**

**Acute toxicity:**

Sodium Chloride ( CAS no 7647-14-5)

$LC_{50}$ - fish (*Carassius auratus*) 7341 mg/l (96h)
$LC_{50}$ - fish (*Lepomis macrochirus*) 9675 mg/l (96h)
$LC_{50}$ - fish (*Pimephales promelas*) 7650 mg/l (96h)
$LC_{50}$ - fish (*Salmo gairdneri*) 11000 mg/l (96h)
$LC_{50}$ - fish (*Gambusia affinis*) 17550 mg/l (96h)
$LC_{50}$ - fish (*Cyprinus carpio*) 21500 mg/l (1h)
$EC_{50}$ - invertebrates (*Daphnia magna*) 3412 mg/l (24h)
$LC_{50}$ - invertebrates (*Snails*) 6200 mg/l (96h)
$LC_{50}$ - invertebrates (*Caddis flies*) 9000 mg/l (24h)
$LC_{50}$ - invertebrates (*Lymnea eggs*) 3412 mg/l (96h)
$EC_{50}$ – Algea (*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 and vPvB assessment**

This substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties.

**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.

**Waste code package:**

15 01 02 plastic packaging.

## SECTION 14: Transport information

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

## SECTION 15: Regulatory information

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

– Regulation (EC) No 1272/2008 (CLP) of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (REACH).

- REGULATION (EC) No 1907/2006 OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

- COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

### 15.2. Chemical safety assessment

A Chemical Safety Assessment has not been carried out for this substance.

## SECTION 16: Other information

**Full text of H-phrases mentioned in section 3:**

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**Classification procedures according to Regulation (EC) 1272/2008**

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**Changes:** section 1-16

**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

**Note to readers**

The product described in the safety data sheet should be stored and used in accordance with good industrial practices and in compliance with all applicable legal regulations.
The information contained in the safety data sheet is based on the current state of knowledge and is intended to describe the product in terms of health, safety and environmental regulations. It should not be considered a guarantee of any specific product properties.
We cannot make any representations or warranties regarding the accuracy or completeness of any information provided or the quality or specifications of any products, substances or mixtures discussed herein.
The user is responsible for creating conditions for the safe use of the product and for the consequences of its misuse.

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