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

1.1. Product identifier

Sodium chloride (CAS: 7647-14-5, EC: 231-598-3)

Synonyms: Evaporated salt (wet and dry), food grade salt, food grade iodized, feed salt, nitrite curing salt, salt tablets, winter sidewalks salt.

The registration number: Not subject to registration in accordance with paragraph 7 of Annex V of the REACH Regulation.

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

Relevant identified uses: Depending on the type of product - food, meat processing, fodder, chemical industry, water treatment, de-icing sidewalks.
Uses advised against: Not determined.

1.3. Details of the supplier of the safety data sheet

Producer: CIECH Soda Polska S.A.
Address: Poland; PL 88-101 Inowrocław; Fabryczna 4 Street
Telephone: +48 52 354 15 00
E-mail address of the person responsible for the SDS: sds@ciechgroup.com

1.4. Emergency telephone number

112 (emergency call), 999 (emergency telephone number)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation 1272/2008/EC:
Does not meet the criteria of classification.

2.2. Label elements

Label accordance with Regulation 1272/2008/EC (CLP)
Hazard pictograms, signal words: None.
Hazard statements: None.
Precautionary statements: None.

2.3. Other hazards

The substance does not meet the criteria for PBT and vPvB. The PBT or vPvB criteria of Annex XIII to the Regulation 1907/2008/EC does not apply to inorganic substances.

The potential risk is at work: the possibility of the release of hydrochloric dust by abrasion, resulting in exceeding the rate specified for TWA salt dust.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance name:	**Sodium chloride**
Concentration [%]:	99.0-99.9
CAS Number:	7647-14-5
EC Number:	231-598-3
Index Number:	-
Classification 1272/2008/EC:	None

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: Move the affected person to fresh air and keep rested. Seek medical advice if necessary.
Skin contact: Immediately remove contaminated clothing. Flush contaminated skin with plenty of water and soap, then rinse with plenty of water. Seek medical advice if necessary.
Eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Avoid strong stream of water due to the risk of mechanical damage to the cornea. Seek medical advice if necessary.
Ingestion: Do not induce vomiting. Rinse mouth with water, and then give to drink plenty of water. Seek medical advice if necessary.

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

Inhalation: Salt dust may cause slight irritation of the respiratory tract and mucous membranes of nose and throat.
Eye contact: Causes irritation, redness, tearing.
Skin contact: May cause slight redness, irritation.
Ingestion: After ingestion of larger amounts are nausea and/or vomiting.

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

Remove affected person from the contaminated product of the environment. In the event of health problems, consult your doctor or the center of toxicological concern. Provide the information contained in the SDS. If unconscious, do not give anything by mouth.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media: Extinguishing media suitable to the burning media in the surrounding should be applied.
Unsuitable extinguishing media: Water jet.

5.2. Special hazards arising from the substance or mixture
Non-flammable substance. During combustion produce hazardous products. Avoid inhalation of combustion products because they may pose a health risk.

5.3. Advice for firefighters
Wear full protective equipment and self-contained breathing apparatus with independent air circulation. Containers exposed to fire or high temperature cool with water and if possible remove from the danger zone. Take up mechanically. Keep out of drains, surface waters and soil against pollution. Water from fire treated as hazardous pollution and accumulate in separate containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
For non-emergency personnel: Should restrict access to non-emergency personnel to the area of failure until the completion of the disposal of the product. Wear appropriate personal protective equipment. Do not drink, eat and smoke. Provide adequate local and general ventilation. Avoid direct contact with the substance. Avoid inhalation of dust.
For emergency responders: Wear appropriate personal protective equipment. Do not drink, eat and smoke. Provide adequate local and general ventilation. Avoid direct contact with the substance. Avoid inhalation of dust.

6.2. Environmental precautions
Secure the gullies. Prevent contamination of surface water and ground. In the event of any serious pollution of the environment, notify the appropriate administrative authority, control and rescue services. Dispose of used packaging to deliver to eligible organizations.

6.3. Methods and material for containment and cleaning up
Secure the gullies. Keep damaged packaging. Damaged container and place in a substitute container. Collect the spilled substance mechanically avoiding the formation of dust, transfer to a tightly sealed containers and be disposed of or recycled. Contaminated area with plenty of water.

6.4. Reference to other sections
Disposal - see Section 13. Personal protective equipment - see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not eat, drink, smoke or take drugs at work. Remove contaminated clothing and clean before reuse. Avoid skin and eye contact. Avoid inhalation of dust. Wash your hands before break and after working with the product. The workplace should be equipped with a shower and eye wash position. Prevent against penetration into drains, surface and ground water and soil.

7.2. Conditions for safe storage, including any incompatibilities

Keep in properly labeled, factory tightly sealed, with a label which complies with current regulations. Store in dry, cool and well-ventilated storage room. Protect against moisture (substance may be lumpy). Avoid contact with acids, alkali metals and strong oxidants. Corrosive to metals in the aquatic environment.

7.3. Specific end use(s)

Depending on the type of product - food, meat processing, fodder, chemical industry, water treatment, de-icing sidewalks.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Substance name	TWA	STEL	BLV
Dusts	10 mg/m^3 (inhalable)	-	-

Legal basis: Ordinance on maximum permissible concentration and intensity of harmful factors in the work environment in accordance with national limit values.
EH40/2005 Workplace exposure limits, second edition, published 2011, ISBN 978 0 7176 6446 7.

Monitoring procedures:
Use methods described in European Standards.

A chemical safety report is not required.

8.2. Exposure controls

8.2.1 Appropriate engineering controls

Mandatory general regulations on occupational health. Do not allow the crossing of the environment, the workplace concentration limits for hazardous constituents. After work, wash and clean the surface of the body and protective clothing. Do not eat, drink, smoke or

take drugs at work. Remove contaminated clothing and clean before reuse. Wash hands and face before break and after working with the product. Avoid skin and eye contact. Avoid inhalation of dust. Provide adequate local exhaust and general ventilation. The workplace should be equipped with a shower and eye wash position.

8.2.2 Individual protection measures, such as personal protective equipment
Eye/face protection: Wear suitable protective glasses of goggles type, e.g. made of polycarbonate (EN 166).
Skin Protection: In industrial usage wear protective clothing made of natural materials (cotton) or synthetic fibers and gloves (glove materials: nitrile-, butyl-, neoprene-rubber or PVC); glove thickness: 0.5 mm, break through time: ≥480 min (EN 374).
Respiratory protection: In the case of high concentrations of dust, use respiratory equipment with particle filter color-coded white and the symbol P.
Thermal Hazards: Not required.

Used personal protective equipment should meet the requirements of local/regional/ national laws. The employer must provide personal protective equipment appropriate to the type of work and meeting all requirements, including maintenance and cleaning.

Concentrations should be monitored hazardous substances in the workplace in accordance with recognized test methods. Mode, method, type and frequency of testing and measurement of harmful factors in the working environment should meet the requirements of local/regional/national laws.

8.2.3 Environmental exposure controls
Do not introduce the product to ground water, sewage, waste water or soil.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Solid - finecrystalline powdery white powder (20^{o}C and 101.3 kPa) Salt tablets (diameter: 25 mm; Thickness: 17 mm, weight: 14-15 g)
Odour:	Odourless
Odour threshold:	Not applicable (the substance is odorless)
pH:	Approx. 7 (1% aqueous solution at 25°C) 8-9 (5% aqueous solution at 25°C)
Melting point/freezing point:	801^{o}C
Initial boiling point and boiling range:	In accordance with Annex VII of REACH (section 7.3), study does not need to be conducted, as sodium chloride has a melting point >300^{o}C
Flash point:	In accordance with Annex VII of REACH (section 7.9) a flash point study is not needed, as sodium chloride is inorganic

Evaporation rate:	Negligible, because sodium chloride is an inorganic salt (vapor pressure is practically equal to 0)
Flammability (solid, gas):	Non-flammable substance
Upper/lower flammability or explosive limits:	According to REACH Regulation Annex VII (point 7.11, specific rules for adaptation) the test does not need to be conducted. Based on the lack of chemical groups associated with explosive properties in the structure of the substance, its classification as explosive is not warranted
Vapour pressure:	In accordance with Annex VII of REACH (section 7.5), a vapour pressure study does not need to be conducted as sodium chloride has the melting point above 300°C. Sodium chloride is an inorganic salt, and therefore the value of the vapor pressure can be considered negligible.
Vapour density:	Not applicable (substance is a solid)
Relative density:	Density: 2.17 g/cm^3 (20^{o}C)
Solubility(ies):	In water: 358 g/l (20^{o}C) In ethanol: 0.51 g/l (25^{o}C)
Partition coefficient: n-octanol/ water:	According to REACH Regulation Annex VII (point 7.8) the test does not need to be conducted as sodium chloride is inorganic
Auto-ignition temperature:	Product is not selfigniting
Decomposition temperature:	No data available
Viscosity:	Not applicable (substance as a solid)
Explosive properties:	According to REACH Regulation Annex VII (point 7.11, specific rules for adaptation) the test does not need to be conducted. Based on the lack of chemical groups associated with explosive properties in the structure of the substance, its classification as explosive is not warranted
Oxidising properties:	Due to the molecular structure is not expected oxidizing properties

9.2. Other information
In water solutions heavily corrosive for the majority of metals.

SECTION 10: Stability and reactivity

10.1. Reactivity
Under the conditions of storage and handling as intended - no reactivity. A hygroscopic substance.

10.2. Chemical stability
Under normal conditions of use and storage of the substance is stable. A hygroscopic substance.

10.3. Possibility of hazardous reactions
Not specified.

10.4. Conditions to avoid
Moisture (substance may be lumpy).

10.5. Incompatible materials
Acids, alkali metals and strong oxidants. Corrosive to metals in the aquatic environment.

10.6. Hazardous decomposition products
Vapors of hydrogen chloride and sodium oxide are generated after heating to the decomposition temperature.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity:
Based on available data, the classification criteria are not met.

Oral:
LD_{50} (rat) 3000 mg/kg (Toxicology and Applied Pharmacology, 1971)
LD_{50} (mouse) 4000 mg/kg (Farmaco, 1972)
Dermal:
LD_{50} (rabbit) >10000 mg/kg (BIOFAX Industrial Bio-Test Laboratories, 1971)
Inhalation:
LC_{50} (rat) >42000 mg/m^3/1h (BIOFAX Industrial Bio-Test Laboratories, 1971)

Skin corrosion/irritation:
For prolonged contact may cause irritation.

Serious eye damage/irritation:
Causes eye irritation.

Respiratory or skin sensitization:
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.

Health effects of local exposure:
Inhalation: Salt dust may cause slight irritation of the respiratory tract and mucous membranes of nose and throat.
Eye contact: Causes irritation, redness, tearing.
Skin contact: May cause slight redness, irritation.
Ingestion: After ingestion of larger amounts are nausea and/or vomiting.

SECTION 12: Ecological information

12.1. Toxicity
Harmful to vegetation growth, plankton and fish life.

Acute toxicity to fish:
LC_{50} (*Lepomis macrochirus*) 5840 mg/l/96h (Birge WJ *et al*., 1985)
LC_{50} (*Pimephales promelas*) 6390 mg/l/96h (Mount DR *et al*., 1997)

Acute toxicity to invertebrates:
LC_{50} (*Daphnia magna*) 3412 mg/l/24h (Dowden BF; Proc La Acad Sci 23, 1961)

12.2. Persistence and degradability
Sodium chloride salt in the form of tablets in contact with water is slowly dissolved. Is an inorganic substance which can not be oxidized or be biodegradable by microorganisms. Sodium chloride is dissociated in water.

12.3. Bioaccumulative potential
In accordance with section 1 of REACH Annex XI, the study does not need to be conducted as in water, sodium chloride in the environment is in the dissociated form, which means that it will not accumulate in living tissues.
Octanol-water partition coefficient (K_{ow}): Not applicable (sodium chloride is salts of inorganic).
Bioconcentration factor (BCF): Not applicable (sodium chloride is salts of inorganic).

12.4. Mobility in soil
In accordance with section 1 of Annex XI of the REACH Regulation, the study need not be conducted because sodium chloride is in the environment in the form of ions, which means that there will be adsorbed.

12.5. Results of PBT and vPvB assessment
The PBT or vPvB criteria of Annex XIII to the Regulation does not apply to inorganic substances.

12.6. Other adverse effects
The release of sodium chloride to water may cause local contamination of the ecosystem.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
During removal of waste comply with the regional/national laws.

Community legislation:
- Directive **2008/98/EC** of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.
- European Parliament and Council Directive **94/62/EC** of 20 December 1994 on packaging and packaging waste as amended.

Disposal methods for the product: Don't introduce into the environment. Collect spilt substance to the containers. Reused or pass in a properly labeled containers for disposal to the qualifying company.
Disposal methods for used packing: Product and packaging disposed of as waste material; delivered to undertakings so authorized.

SECTION 14: Transport information

14.1. UN number
Not applicable.

14.2. UN proper shipping name
Not applicable.

14.3. Transport hazard class(es)
Not applicable.

14.4. Packing group
Not applicable.

14.5. Environmental hazards
Substance isn't dangerous for the environment in accordance with the UN Model Regulations criteria.

14.6. Special precautions for user
Not applicable.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Regulation (EC) No 1907/2006 of the European Parliament and 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 as amended.
Regulation (EC) No 1272/2008 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 as amended.
Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.
European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended.

15.2. Chemical safety assessment
The Chemical Safety Assessment has not been performed by supplier.

SECTION 16: Other information

Key to abbreviations and acronyms:
BLV - Biological limit values.
DNEL - Derived no-effect level.
LC_{50} - Median lethal concentration.
LD_{50} - Median lethal dose.
STEL - Short-term exposure limit.
TWA - 8 hours time-weighted average.

Sources of key data: Producer SDS from 1st December 2010.

Training advice: Before use read the SDS.

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are also

treated as aid to safety in transport, storage and usage of the product. This does not free the user from the responsibility of improper usage of the information above also of improper compliance with the law norms in the field.

The information contained in this safety data sheet has been prepared by the manufacturer and verified by the ISOTOP s.c. Consulting Company; **www.isotop.pl**; e-mail: **reach@isotop.pl**

This SDS replaces and annuls all the previous versions.

Version	**Section(s)**	**Change(s)**
1 (18.07.2013)	1.3	Producer and E-mail address
2 (16.10.2013)	headline	Document name
	16	Sources of key data and information regarding creator
3 (28.07.2014)	headline	logo
	1.1	Product identifier Information about the registration number
	1.2, 7.3	Removed "in energetics" referring to the use in water treatment
	1.3	Details of the supplier changed
	2.1	Removed group division of threats Classification according to Directive 67/548/EEC removed Removed "In section 16 stated the importance of H-phrases and symbols"
	2.2	"The names of hazardous ingredients on the label" removed
	2.3	Information about other hazards changed
	3.1	Classification according to Directive 67/548/EEC removed
	3.2	Section removed
	7.2	Completion of conditions for safe storage, including any incompatibilities
	8.2.2	European standard for equipment protection to eye/face and skin
	10.5	Information about incompatible materials actualized
	10.6	Information about hazardous decomposition products added
	11.1	Updated information on acute toxicity studies
	12.1	Updated information about acute toxicity to fish and invertebrates
	13.1	Waste code removed
	14.7	Section title changed in accordance with new regulations
	15.1	The regulatory information update
	15.2	Changed information about chemical safety assessment
	16	"The full text of statements R and H under Sections 2 and 3" removed Key to abbreviations and acronyms update

4 (02.03.2016)	1.1	Updated synonyms
	1.2, 7.3	Information on identified uses of the product has been updated
	3.1	The concentration range of the substance has been changed
	9.1	Change record