

Sodium chloride

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 11/11/2016

Doc No: SDS-969.033/0



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

1.1. Product identifier

Product form : Substance
Substance name : Sodium chloride
EC no : 231-598-3
CAS No : 7647-14-5
Type of product : Pure substance, Hygroscopic substance. Preventive measures apply to the substance in dry state only
Formula : NaCl
Chemical structure :



Synonyms : Saline / salt / sea salt / sodium chloride (NaCl) / solar salt / solsel / sterling (=sodium chloride) / table salt // vacuum salt, electrolysis quality / white crystal

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Water treatment
Chemical raw material
Food industry: Preserving agent
Photographic chemical
Herbicide
De-icer
Laboratory chemical

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ISOLAB GmbH
Bahnhofstrasse 10, D-97877
Wertheim - Germany
T +49 93 42 912 355 - F +49 93 42 912 357
prodsafe@isolab.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Germany	Giftnotruf der Charité CBF, Haus VIII (Wirtschaftsgebäude), UG	Hindenburgdamm 30 12203 Berlin	+49 (0) 30 19240	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

No additional information available

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SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sodium chloride	(CAS No) 7647-14-5 (EC no) 231-598-3	99 - 100	Not classified

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Wash with water and soap. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Victim is fully conscious: immediately induce vomiting. Call Poison Information Centre (www.big.be/antif.htm). Consult a doctor/medical service if you feel unwell.

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

Symptoms/injuries after inhalation	: AFTER INHALATION OF DUST: Dry/sore throat. Coughing. Irritation of the nasal mucous membranes.
Symptoms/injuries after skin contact	: No effects known.
Symptoms/injuries after eye contact	: Slight irritation. Redness of the eye tissue.
Symptoms/injuries after ingestion	: AFTER ABSORPTION OF HIGH QUANTITIES: Nausea. Vomiting. Irritation of the gastric/intestinal mucosa. Loss of appetite. Tremor. Muscular pain. Mental confusion. Disturbances of consciousness.
Symptoms/injuries upon intravenous administration	: No effects known.
Chronic symptoms	: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin rash/inflammation. Coughing. Conjunctivitis. Affection of the nasal septum. High arterial pressure.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Adapt extinguishing media to the environment.
Unsuitable extinguishing media	: No unsuitable extinguishing media known.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD. Non combustible.
Explosion hazard	: DIRECT EXPLOSION HAZARD. Not applicable. INDIRECT EXPLOSION HAZARD. Not applicable.

5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Dilute toxic gases with water spray.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. See "Material-Handling" to select protective clothing.
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Emergency procedures : Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes.

Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.

Methods for cleaning up : Prevent dust cloud formation. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Comply with the legal requirements. Thoroughly clean/dry the installation before use. Avoid raising dust. Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

7.2. Conditions for safe storage, including any incompatibilities

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.

Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. metals. water/moisture.

Storage area : Store in a dry area. Meet the legal requirements.

Special rules on packaging : SPECIAL REQUIREMENTS: closing. watertight. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: copper. nickel. HDPE. polypropylene. Teflon. PVC. MATERIAL TO AVOID: No data available.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: butyl rubber. natural rubber. neoprene. nitrile rubber. PVC. GIVE LESS RESISTANCE: No data available. GIVE POOR RESISTANCE: No data available

Hand protection:

Gloves

Eye protection:

Safety glasses. In case of dust production: protective goggles

Skin and body protection:

Protective clothing

Respiratory protection:

Dust production: dust mask with filter type P1

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline solid. Crystalline powder. Grains.
Molecular mass	: 58.44 g/mol
Colour	: Colourless to white.
Odour	: Odourless.
Odour threshold	: No data available
pH	: 4.5 - 7.0 (100 g/l, H ₂ O, 20 °C)
pH solution	: 10 %
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 801 °C (1 atm)
Freezing point	: No data available
Boiling point	: 1461 °C
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: > 804 °C
Flammability (solid, gas)	: No data available
Vapour pressure	: 1.3 hPa at 865 °C
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 2.17 g/cm ³ (20 °C)
Solubility	: Soluble in water. Soluble in formic acid. Soluble in glycerol. Soluble in ethyleneglycol. Water: 35.8 g/100ml (20 °C)
Log Pow	: -3 (Calculated)
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

Minimum ignition energy	: Not applicable
VOC content	: 0 %
Bulk density	: 1140 kg/m ³
Other properties	: Hygroscopic.

SECTION 10: Stability and reactivity

10.1. Reactivity

At very high temperature: release of toxic and corrosive gases/vapours e.g.: hydrogen chloride.

10.2. Chemical stability

Hygroscopic.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Sodium chloride (7647-14-5)	
LD50 oral rat	3000 mg/kg (Rat; Experimental value; 3550 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit; Experimental value)

Skin corrosion/irritation : Not classified
pH: 6.0 - 7.0 (6 %; 7.0 - 10.0; 31.7 %; 20 °C)

Serious eye damage/irritation : Not classified
pH: 6.0 - 7.0 (6 %; 7.0 - 10.0; 31.7 %; 20 °C)

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Classification concerning the environment: not applicable. Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006). TA-Luft Klasse 5.2.1.

Ecology - water : Maximum concentration in drinking water: 250 mg/l (chloride) (Directive 98/83/EC); 200 mg/l (sodium) (Directive 98/83/EC). Not harmful to fishes (LC50(96h) >1000 mg/l). Not harmful to invertebrates (Daphnia). Not harmful to algae (EC50 >1000 mg/l).

Sodium chloride (7647-14-5)	
LC50 fish 2	5840 mg/l (LC50; ASTM; 96 h; Lepomis macrochirus; Flow-through system; Fresh water; Experimental value)
Threshold limit algae 2	2430 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 120 h; Algae; Static system; Fresh water; Experimental value)

12.2. Persistence and degradability

Sodium chloride (7647-14-5)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

12.3. Bioaccumulative potential

Sodium chloride (7647-14-5)	
Log Pow	-3 (Calculated)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Remove waste in accordance with local and/or national regulations. Recycle/reuse. Immobilize the toxic or harmful components. Precipitate/make insoluble. Remove to an authorized dump (Class I). Treat using the best available techniques before discharge into drains or the aquatic environment.

Additional information : LWCA (the Netherlands): KGA category 05. Can be considered as non hazardous waste according to Directive 2008/98/EC.

European List of Waste (LoW) code : 06 03 14 - solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

- Inland waterway transport

Not applicable

- Rail transport

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Sodium chloride is not on the REACH Candidate List

VOC content : 0 %

15.1.2. National regulations

Germany

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VwVwS Annex reference	: Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 1 or 2; ID No. 270)
WGK remark	: Classification water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 2)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen	: The substance is not listed
SZW-lijst van mutagene stoffen	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	: The substance is not listed

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
IATA	International Air Transport Association
EC50	Median effective concentration
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

Data sources	: 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.
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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product