



AXAL® PRO Salt tablets

Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Issue date:

Revision date: 07/09/2022

Version: 20.1

SECTION 1: Identification

1.1. GHS Product identifier

Product form : Substance
Trade name : AXAL® PRO Salt tablets
Substance type : Mono-constituent
Type of product : Water softeners
EC-No. : 231-598-3
CAS-No. : 7647-14-5
Formula : NaCl

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Water softeners

1.4. Supplier's details

Manufacturer

K+S Minerals and Agriculture GmbH
Bertha-von Suttner-Str. 7
34131 Kassel - Deutschland
T +49 561 9301- 0
info@k-plus-s.com - www.kpluss.com

1.5. Emergency phone number

Emergency number : For Chemical Emergency Call : for incidents involving hazardous materials [or dangerous goods] spill, leak, fire, exposure or accident, call CHEMTREC 24hr/day 7days/week
Within USA and Canada: +1 800 424 - 9300
Outside USA and Canada: +1 703 741 - 5970
(collect calls accepted)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Not classified

2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

No labelling applicable

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent
Name : AXAL® PRO Salt tablets
CAS-No. : 7647-14-5
EC-No. : 231-598-3
Product identifiers: See section 1.1

Name	Product identifier	%
Sodium chloride	(CAS-No.) 7647-14-5	> 98

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general : If you feel unwell, consult a doctor/medical service.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Rinse mouth out with water. If you feel unwell, seek medical advice.

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4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after skin contact	: No effects known.
Symptoms/effects after ingestion	: AFTER INGESTION OF HIGH QUANTITIES: Nausea. Vomiting.
Potential adverse human health effects and symptoms	: Practically non-toxic if swallowed (LD50 oral, rat > 2000 mg/kg). Not irritant to skin. Non-toxic in contact with skin (LD50 skin > 5000 mg/kg). Slightly harmful by inhalation. Not irritant to eyes.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	: Adapt extinguishing media to the environment for surrounding fires.
Unsuitable extinguishing media	: Strong water jet.

5.2. Specific hazards arising from the chemical

Fire hazard	: DIRECT FIRE HAZARD: Non combustible.
Explosion hazard	: DIRECT EXPLOSION HAZARD: No direct explosion hazard. The product is not explosive. Is not classified according to Regulation (EU) 2019-1148.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. hydrogenchloride.

5.3. Special protective actions for fire-fighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Complete protective clothing. Self-contained breathing apparatus.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment.
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6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid sub-soil penetration. Do not allow product to spread into the environment. Do not allow to enter drains or water courses.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up	: Mechanically recover the product. Avoid dust formation. Wash down leftovers with plenty of water. This material and its container must be disposed of in a safe way, and as per local legislation. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.
Other information	: Disposal must be done according to official regulations. Ensure adequate air ventilation. Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. Do not breathe dust. Avoid dust formation.
Hygiene measures	: Observe normal hygiene standards.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a dry place. Store at room temperature. Protect from moisture.
Information on mixed storage	: KEEP SUBSTANCE AWAY FROM: oxidizing agents. metals. water/moisture.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Eye protection	: Where excessive dust may result, wear goggles
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Dust formation: dust mask. EN 143

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Personal protective equipment symbol(s)



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystals
Molecular mass	: 58.44 g/mol
Colour	: Colourless to white.
Odour	: Odourless.
Odour threshold	: Not available
Melting point	: 801 °C (1013 hPa)
Freezing point	: Not available
Boiling point	: No data available (test not performed)
Flammability (solid, gas)	: Not available
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable (solid)
Decomposition temperature	: > 804 °C
pH	: 6 – 9 (50 g/l; 20°C; DIN 38404-5)
pH solution	: Not available
Viscosity, kinematic (calculated value) (40 °C)	: Not applicable (solid)
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: No data available (test not performed)
Vapour pressure at 50 °C	: Not available
Density	: 2160 kg/m ³ (25 °C)
Relative density	: 2.16 (25 °C)
Relative vapour density at 20 °C	: Not applicable
Solubility	: Soluble in water. Water: 35.9 g/100ml (20 °C)
Viscosity, dynamic	: Not applicable (solid)
Explosive properties	: Product is not explosive
Oxidising properties	: Non oxidizing
Particle size	: 1.293 mm (D50, CIPAC MT 59.1)
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle specific surface area	: Not available

9.2. Data relevant with regard to physical hazard classes (supplemental)

Minimum ignition energy	: Not applicable
VOC content	: Not applicable (inorganic)
Bulk density	: ≈ 1000 kg/m ³
Other properties	: Hygroscopic.

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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Hygroscopic.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Alkali metals. Acids. oxidising substances.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

AXAL® PRO Salt tablets (7647-14-5)

LD50 oral rat	> 3980 mg/kg bodyweight (Rat, Experimental value, 20% aqueous solution, Oral)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit, Experimental value, Dermal)
LC50 Inhalation - Rat	> 42 mg/l air (1 h, Rat, Male, Experimental value, 20% aqueous solution, Inhalation (aerosol))

Sodium chloride (7647-14-5)

LD50 oral rat	> 3980 mg/kg bodyweight (Rat, Experimental value, 20% aqueous solution, Oral)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit, Experimental value, Dermal)
LC50 Inhalation - Rat	> 42 mg/l air (1 h, Rat, Male, Experimental value, 20% aqueous solution, Inhalation (aerosol))

Skin corrosion/irritation	: Not classified pH: 6 – 9 (50 g/l; 20°C; DIN 38404-5)
Serious eye damage/irritation	: Not classified pH: 6 – 9 (50 g/l; 20°C; DIN 38404-5)
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

AXAL® PRO Salt tablets (7647-14-5)

Viscosity, kinematic	Not applicable (solid)
Potential adverse human health effects and symptoms	: Practically non-toxic if swallowed (LD50 oral, rat > 2000 mg/kg). Not irritant to skin. Non-toxic in contact with skin (LD50 skin > 5000 mg/kg). Slightly harmful by inhalation. Not irritant to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.
Ecology - air	: Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water	: Not harmful to crustacea (Daphnia). Not harmful to fishes. Not harmful to algae.

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Hazardous to the aquatic environment, short-term : Not classified (acute)

Hazardous to the aquatic environment, long-term : Not classified (chronic)

AXAL® PRO Salt tablets (7647-14-5)

LC50 - Fish [1]	5840 mg/l (ASTM, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)
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12.2. Persistence and degradability

AXAL® PRO Salt tablets (7647-14-5)

Persistence and degradability	Not applicable for inorganic substances.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

Sodium chloride (7647-14-5)

Persistence and degradability	Not applicable for inorganic substances.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

AXAL® PRO Salt tablets (7647-14-5)

Bioaccumulative potential	Not bioaccumulative.
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Sodium chloride (7647-14-5)

Bioaccumulative potential	Not bioaccumulative.
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12.4. Mobility in soil

AXAL® PRO Salt tablets (7647-14-5)

Mobility in soil	No additional information available
Surface tension	73.03 mN/m (23 °C, 14.5 g/l)
Ecology - soil	No (test)data on mobility of the substance available.

Sodium chloride (7647-14-5)

Surface tension	73.03 mN/m (23 °C, 14.5 g/l)
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available
Other information	: No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations	: Do not discharge into drains or the environment. Dispose of at authorized waste collection point. Remove waste in accordance with local and/or national regulations.
Additional information	: Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

SECTION 14: Transport information

In accordance with UN RTDG / IMDG / IATA

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UN RTDG	IMDG	IATA
14.1. UN number		
Not regulated for transport		
14.2. UN Proper Shipping Name		
Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)		
Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No
No supplementary information available		

14.6. Special precautions for user

- UN RTDG

Transport regulations (UN) : Not subject

- IMDG

Transport regulations (IMDG) : Not subject

- IATA

Transport regulations (IATA) : Not subject

14.7. Transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

SECTION 16: Other information

Revision date : 07/09/2022

Data sources : BIG.

Safety Data Sheet (SDS) K+S, UN

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.