

Trade name: Kalii nitras

Substance number: 064832

Version: 7 / CH

Date revised: 08.07.2025

Replaces Version: 6 / CH

Print date: 08.07.25

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

1.1. Product identifier

Kalii nitras

Item No. 06483200

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

Use of the substance/preparation

Reagent for analyses, Precursor for explosive substances according to VSG (SR814.42). The provisions of Art. 14 and 15 VSG must be observed when dispensing/supplying.

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Hänseler AG

Industriestrasse 35

9100 Herisau

Telephone no. 0041 (0)71 353 58 58

E-mail address of sdb@haenseler.ch

person responsible
for this SDS

1.4. Emergency telephone number

Switzerland :145 / Abroad +41 (0)44 251 51 51

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Ox. Sol. 3 H272

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Warning

Hazard statements

H272 May intensify fire; oxidizer.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P221 Take any precaution to avoid mixing with combustibles...

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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P501.3 Disposal in compliance with local and national regulations.
P220 Keep away from clothing and other combustible materials.
P370+P378.2 In case of fire: Use extinguishing powder for extinction.

2.3. Other hazards

The Substance does not meet PBT-criteria. This substance does not meet the vPvB-criteria. This substance does not have endocrine disrupting properties with respect to humans. This substance does not have endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients

Molecular weight

Value	101.10	g/mol
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Further ingredients

potassium nitrate

CAS No.	7757-79-1			
EINECS no.	231-818-8			
Registration no.	01-2119488224-35-XXXX			
Concentration	>=	95	%	
Advice: [4]				
Classification (Regulation (EC) No. 1272/2008)				
Ox. Sol. 3	H272			

Note

[4] Voluntary information

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In any case show the physician the Safety Data Sheet.

After inhalation

Ensure supply of fresh air.

After skin contact

Remove contaminated, soaked clothing immediately and dispose of safely. After contact with skin, wash immediately with plenty of water.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Seek medical advice immediately.

After ingestion

Drink water in small gulps. By continuous complaints consult a physician.

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

Important or other important known symptoms and effects are described in the GHS labelling of the product (see section 2) and in section 11.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Extinguishing measures to suit surroundings

Non suitable extinguishing media

No extinguishing agent restrictions

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5.2. Special hazards arising from the substance or mixture

The product is not combustible. The product supports fire. If a fire breaks out nearby evolution of dangerous gases possible. In the event of fire the following can be released: Nitrous gases (NO_x); potassium oxide; Nitrous gases (NO_x); Nitrogen oxides (NO_x)

5.3. Advice for firefighters**Special protective equipment for fire-fighting**

Use self-contained breathing apparatus.

Other information

Do not discharge into surface waters/groundwater. Collect contaminated fire-fighting water separately, must not be discharged into the drains. Suppress vapours with water spray jet.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Avoid dust formation. Do not inhale dust. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

6.2. Environmental precautions

Do not empty into drains.

6.3. Methods and material for containment and cleaning up

Pick up mechanically. When picked up, treat material as prescribed under Section 13 "Disposal". Clean up affected area. Avoid raising dust.

6.4. Reference to other sections

Information regarding waste disposal, see Section 13.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Keep container tightly closed.

Advice on protection against fire and explosion

Keep away from ignition sources, fire and open light.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed in a well-ventilated place. Store away from sources of ignition and heat.

Storage classes

Storage class according to TRGS 510

5.1B

Oxidising hazardous substances

Storage category (Switzerland)

5

Oxidizing substances, organic peroxides

Further information on storage conditions

Keep container tightly closed and dry. Keep away from sources of ignition. Protect from warmth.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Derived No/Minimal Effect Levels (DNEL/DMEL)****potassium nitrate**

Type of value

Derived No Effect Level (DNEL)

Reference group

Worker

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Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	20.8	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	10.9	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Concentration	12.5	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Concentration	12.5	mg/kg/d

Predicted No Effect Concentration (PNEC)**potassium nitrate**

Type of value	PNEC	
Type	Water	
Concentration	0.45	mg/l

8.2. Exposure controls**General protective and hygiene measures**

Remove contaminated, soaked clothing immediately and dispose of safely. Wash hands before breaks and after work. Observe the usual precautions for handling chemicals.

Respiratory protection

Breathing apparatus in the event of aerosol. Particle filter P1; EN 143

Hand protection

Gloves
 Appropriate Material nitrile rubber - NBR
 Material thickness 0.11 mm
 Breakthrough time > 480 min
 Hand protection must comply with EN 374.

Eye protection

Safety glasses

Body protection

Protective clothing

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	crystalline
Colour	white

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Melting point

Value 334 °C

Boiling point or initial boiling point and boiling range

Remarks Not applicable

Flammability

Not ignitable

Upper and lower explosive limits

Remarks Not applicable

Flash pointValue °C
Remarks Not applicable**Ignition temperature**

Remarks Not applicable

Decomposition temperature

Remarks No data available

pH valueValue 5.0 to 7.5
Concentration/H₂O 50 g/l
Temperature 20 °C**Viscosity****dynamic**

Remarks No data available

Vapour pressure

Remarks Not applicable

Density and/or relative densityValue 2.109 g/cm³
Temperature 16 °C**Particle characteristics**Type d50
Particle size 306.905 µm**9.2. Other information****Solubility in water**Value 320 g/l
Temperature 20 °C**Bulk density**Value appr. 800 kg/m³**SECTION 10: Stability and reactivity****10.1. Reactivity**

No decomposition if stored and applied as directed.

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

Possible incompatibility with materials listed under section 10.5.

10.4. Conditions to avoid

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Flames. Keep away from sources of heat and ignition.

10.5. Incompatible materials

Risk of explosion with: Metals, combustible substances, organic substances, sulfides, Boron, Alkaline metals, carbon, sulphur, phosphides, phosphorus, Magnesium, cyanide, peroxides, nitride, Fluorine, halocarbons, Risk of ignition or formation of inflammable gases or vapours with: calcium silicide

10.6. Hazardous decomposition products

nitrous oxides (NO_x), Nitrous gases

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity (Components)

potassium nitrate

Species	rat		
LD50	3015		mg/kg
Source	IUCLID		

potassium nitrate

Species	Rats (male/female)		
LD50	> 2000		mg/kg
Method	OECD 425		

Acute dermal toxicity (Components)

potassium nitrate

Species	Rats (male/female)		
LD50	> 5000		mg/kg
Method	OECD 402		

Acute inhalative toxicity (Components)

potassium nitrate

Species	Rats (male/female)		
LC50	> 0.527		mg/l
Duration of exposure	4	h	
Method	OECD 403		

Skin corrosion/irritation (Components)

potassium nitrate

Species	rabbit		
Observation Period	4	h	
evaluation	non-irritant		
Method	OECD 404		

Serious eye damage/irritation (Components)

potassium nitrate

Species	rabbit		
evaluation	non-irritant		
Method	OECD 405		

Sensitization (Components)

potassium nitrate

Species	mouse		
evaluation	non-sensitizing		
Method	OECD 429		

Mutagenicity (Components)

potassium nitrate

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Species evaluation Salmonella typhimurium
No mutagenicity in the Ames-test.

potassium nitrate

Species evaluation mammal, species unspecified
No mutagenicity according to various in vitro tests.
Method OECD 476

Reproduction toxicity (Components)**potassium nitrate**

Remarks No data available.

Carcinogenicity (Components)**potassium nitrate**

Remarks No data available.

Specific Target Organ Toxicity (STOT) (Components)**potassium nitrate**

Remarks No data available.

11.2 Information on other hazards**Endocrine disrupting properties with respect to humans**

This substance does not have endocrine disrupting properties with respect to humans.

Experience in practice

After Swallowing: Irritates the mucous membrane. nausea. vomiting. diarrhea. After resorption of toxic quantities: methaemoglobinaemia. headache. cardiac dysrhythmia. hypotension. dyspnea. spasms. cyanosis

Other information

Observe the usual precautions for handling chemicals.

SECTION 12: Ecological information**12.1. Toxicity****Fish toxicity (Components)****potassium nitrate**

Species rainbow trout (*Oncorhynchus mykiss*)
LC50 > 100 mg/l
Duration of exposure 96 h

potassium nitrate

Species guppy (*Poecilia reticulata*)
LC50 191 mg/l
Duration of exposure 96 h

Daphnia toxicity (Components)**potassium nitrate**

Species *Daphnia magna*
EC50 490 mg/l
Duration of exposure 48 h

Algae toxicity (Components)**potassium nitrate**

Species Algae
LC50 > 1700 mg/l
Duration of exposure 10 d

Bacteria toxicity (Components)

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potassium nitrate

Species	activated sludge	
EC50	> 1000	mg/l
Duration of exposure	3	h
Method	OECD 209	

12.2. Persistence and degradability**Biodegradability (Components)****potassium nitrate**

Remarks Inorganic product, cannot be eliminated from the water by biological purification processes.

12.3. Bioaccumulative potential**General information**

No data available

12.4. Mobility in soil**Mobility in soil (Components)****potassium nitrate**

Will not adsorb on soil.

12.5. Results of PBT and vPvB assessment**General information**

No data available

Results of PBT and vPvB assessment

The Substance does not meet PBT-criteria.

This substance does not meet the vPvB-criteria.

12.6 Endocrine disrupting properties**Endocrine disrupting properties with respect to the environment**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects**General information / ecology**

Do not allow it to reach ground water, water bodies or sewage system.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations for the product**

Disposal in compliance with local and national regulations.

Disposal recommendations for packaging

Dispose of as unused product.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number	The product does not constitute a hazardous substance in land transport.	The product does not constitute a hazardous substance in sea transport.	The product does not constitute a hazardous substance in air transport.

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SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Water Hazard Class (Germany)**

Water Hazard Class WGK 1

(Germany)

Remarks

Derivation of WGK according to Annex 1 No. 5.2 AwSV

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information**Hazard statements listed in Chapter 3**

H272 May intensify fire; oxidizer.

CLP categories listed in Chapter 3

Ox. Sol. 3 Oxidising solid, Category 3

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.