

Trade name: Kalii nitras crist

Substance number: 064816

Version: 7 / CH

Date revised: 10.11.2025

Replaces Version: 6 / CH

Print date: 10.11.25

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

1.1. Product identifier

Kalii nitras crist

Item No. 06481600

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

Use of the substance/preparation

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.

P220 Keep away from clothing and other combustible materials.

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P280
P370+P378.1

Wear protective gloves/protective clothing/eye protection/face protection.
In case of fire: Use water sprayjet, carbon dioxide, alcohol-resistant foam or dry powder for extinction.

P501.3
P501.3

Disposal in compliance with local and national regulations.
Disposal in compliance with local and national regulations.

Reduced labeling (<= 125 ml)**Hazard pictograms *******Signal word *****

Warning

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**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**

Take off contaminated clothing and shoes immediately.

After inhalation

Ensure supply of fresh air. In case of respiratory arrest induce breathing with a respiratory device. Seek medical advice. If necessary, give oxygen. In the event of symptoms take medical treatment.

After skin contact

Wash skin thoroughly with water (15 min.). Remove contaminated, soaked clothing immediately and dispose of safely. Consult a doctor if skin irritation persists.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). By continuous complaints consult a physician.

After ingestion

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Rinse out mouth and give plenty of water to drink. Never give anything by mouth to an unconscious person. Summon a doctor immediately.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide, Dry powder, Water spray jet, Extinguishing measures to suit surroundings

5.2. Special hazards arising from the substance or mixture

The product supports fire.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Use self-contained breathing apparatus. Wear protective clothing. Cool closed containers exposed to fire with water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep away unprotected persons. Keep away sources of ignition. Ensure adequate ventilation.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Handle and open container with care. Avoid dust formation. Dust deposits that cannot be avoided must be taken up regularly. Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

The product is not combustible. Oxidizing. Keep away from sources of ignition - No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep tightly closed in a dry and cool place.

Hints on storage assembly

Do not store with combustible materials.

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, cool and dry.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Derived No/Minimal Effect Levels (DNEL/DMEL)**potassium nitrate**

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
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

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	36.7	mg/m ³

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

Type of value	PNEC	
Type	Water	
Concentration	0.45	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	0.045	mg/l

Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	4.5	mg/l

Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	18	mg/l

8.2. Exposure controls

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Exposure controls

See Section 7. No measures exceeding the ones mentioned necessary.

General protective and hygiene measures

Keep away from food-stuffs, beverages and feed-stocks. Wash hands before breaks and after work. Do not inhale dust/fumes/mist. At work do not eat, drink, smoke or take drugs.

Respiratory protection

If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Breathing apparatus in the event of aerosol or mist formation. Breathing apparatus in the event of vapours. Particle filter P1; EN 14387

Hand protection

The glove material must be sufficient impermeable and resistant to the substance. Check the tightness before wear. Gloves should be well cleaned before being removed, then stored in a well ventilated location.

Appropriate Material	Natural Latex	
Material thickness	0.5	mm
Breakthrough time	>= 8	h
Appropriate Material	Polychloroprene	
Material thickness	0.5	mm
Breakthrough time	>= 8	h
Appropriate Material	nitrile rubber - NBR	
Material thickness	0.35	mm
Breakthrough time	>= 8	h
Appropriate Material	Butyl rubber - Butyl	
Material thickness	0.5	mm
Breakthrough time	>= 8	h
Appropriate Material	Fluoro carbon rubber - FKM	
Material thickness	0.4	mm
Breakthrough time	>= 8	h
Appropriate Material	PVC	
Material thickness	0.5	mm
Breakthrough time	>= 8	h

Hand protection must comply with EN 374.

Eye protection

Safety glasses

Body protection

Personnel should wear protective clothing.

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

Physical state	solid
Colour	colourless to white
Odour	odourless

Melting point

Value 333 to 337 °C

Boiling point or initial boiling point and boiling range

Remarks not determined

Flammability

evaluation Danger of fire if contact with combustible materials.

Flash point

Value °C

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Remarks Not applicable

Decomposition temperature

Value > 400 °C

pH valueValue 4.5 to 8.5
Concentration/H₂O 5 %**Partition coefficient n-octanol/water (log value)**

Remarks Not applicable

Density and/or relative densityValue 2.11 g/cm³
Temperature 20 °C**9.2. Other information****Odour threshold**

Remarks No data available

Solubility in waterValue 316 g/l
Temperature 20 °C**Explosive properties**

evaluation no

Oxidising properties

evaluation oxidizing

Other information

The product is not dangerous for explosions.

SECTION 10: Stability and reactivity**10.1. Reactivity**

Reactions with combustible substances.

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

Oxidising agents

10.4. Conditions to avoid

Keep away from sources of heat and ignition.

10.5. Incompatible materials

Reactions with combustible substances. Reactions with metals in powder form. strong acids, Organic materials, Reaction with Sulfuric acid. Reactions with reducing agents, heavy metals. Potassium permanganate

10.6. Hazardous decomposition productsnitrous oxides (NO_x), Toxic gases/vapours**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity**

Remarks Based on available data, the classification criteria are not met.

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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

Remarks	Based on available data, the classification criteria are not met.
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Acute dermal toxicity (Components)**potassium nitrate**

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

Acute inhalational toxicity

Remarks	Based on available data, the classification criteria are not met.
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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

Remarks	Based on available data, the classification criteria are not met.
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Skin corrosion/irritation (Components)**potassium nitrate**

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

Serious eye damage/irritation

Remarks	Based on available data, the classification criteria are not met.
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Serious eye damage/irritation (Components)**potassium nitrate**

Species	rabbit	
evaluation	non-irritant	
Method	OECD 405	

Sensitization

Remarks	Based on available data, the classification criteria are not met.
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Sensitization (Components)**potassium nitrate**

Species	mouse	
evaluation	non-sensitizing	
Method	OECD 429	

Mutagenicity

Remarks	Based on available data, the classification criteria are not met.
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Mutagenicity (Components)**potassium nitrate**

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

potassium nitrate

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

Reproductive toxicity

Remarks Based on available data, the classification criteria are not met.

Reproduction toxicity (Components)**potassium nitrate**

Remarks No data available.

Carcinogenicity

Remarks Based on available data, the classification criteria are not met.

Carcinogenicity (Components)**potassium nitrate**

Remarks No data available.

Specific Target Organ Toxicity (STOT)**Single exposure**

Remarks Based on available data, the classification criteria are not met.

Repeated exposure

Remarks Based on available data, the classification criteria are not met.

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

Remarks No data available.

Aspiration hazard

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

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.

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*

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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)**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**Partition coefficient n-octanol/water (log value)**

Remarks Not applicable

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

Will not adsorb on soil.

12.5. Results of PBT and vPvB assessment**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 undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

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

EWG waste code No not dispose with rubbish.
Disposal in compliance with local and national regulations.

Disposal recommendations for packaging

Dispose of as unused product.

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SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number or ID number	1486	1486	1486
14.2. UN proper shipping name	POTASSIUM NITRATE	POTASSIUM NITRATE	POTASSIUM NITRATE
14.3. Transport hazard class(es)	5.1	5.1	5.1
Label			
14.4. Packing group	III	III	III
Limited Quantity	5 kg	5 kg	
Transport category	3		
Tunnel restriction code	E		

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

Other information ***

The product does not contain substances according to Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH) with a content of $\geq 0.1\%$ w/w.

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

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

Ox. Sol. 3

H272

On basis of test data

Hazard statements listed in Chapter 2/3

H272

May intensify fire; oxidizer.

CLP categories listed in Chapter 2/3

Ox. Sol. 3

Oxidising solid, Category 3

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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.