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

#### 1.1 Product identifier

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

Use of the : Fertilizer Substance/Mixture

#### 1.3 Details of the supplier of the safety data sheet

Company	: COMPO EXPERT GmbH Krögerweg 10 D-48155 Münster
Telephone	: +49 (0) 251 29 79 81 - 000
Telefax	: +49 (0) 251 29 79 81 - 111
E-mail address of person responsible for the SDS	: info@compo-expert.com

### 1.4 Emergency telephone number

GBK GmbH - Global Regulatory Compliance - 24h Telephone: +49 (0) 6132 - 84463

# **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

### Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

#### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

:

Hazard statements
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Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Supplemental Hazard	:	EUH210
Statements		

Safety data sheet available on request.

### 2.3 Other hazards

None known.

# **SECTION 3: Composition/information on ingredients**



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#### 3.2 Mixtures

Chemical nature

: Mixture of nutrient salts based on various inorganic salts.

#### Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
potassium nitrate	7757-79-1 231-818-8 01-2119488224-35- XXXX	Ox. Sol. 3; H272	>= 10 - <= 50

For explanation of abbreviations see section 16.

# **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

General advice	: Take off immediately all contaminated clothing.		
If inhaled	<ul> <li>Move to fresh air.</li> <li>If symptoms persist, call a physician.</li> <li>If unconscious place in recovery position and seek medical advice.</li> </ul>		
In case of skin contact	: Wash off with soap and water.		
In case of eye contact	: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.		
If swallowed	: Clean mouth with water and drink afterwards plenty of water.		
2 Most important symptoms and effects, both acute and delayed			

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

Symptoms : No information available.

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

Treatment : Treat symptomatically.

### **SECTION 5: Firefighting measures**



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# 5.1 Extinguishing media

Suitable extinguishing media	: Water Water spray Dry chemical
Unsuitable extinguishing media	: Carbon dioxide (CO2) Foam Sand

#### 5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Can decompose at above 130 °C. Thermal decomposition products: Nitrogen monoxide, nitrogen dioxide, dinitrogen oxide, ammonia, chloride, hydrogen chloride.
5.3 Advice for firefighters Special protective equipment		In the event of fire, wear self-contained breathing apparatus.
for firefighters	•	in the event of me, wear sen-contained breathing apparatus.
Further information	:	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

# **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures			
Personal precautions	: Remove all sources of ignition.		
<b>6.2 Environmental precautions</b> Environmental precautions	: Do not empty into drains. Retain and dispose of contaminated wash water.		
6.3 Methods and material for con	tainment and cleaning up		
Methods for cleaning up	: Use mechanical handling equipment.		
6.4 Reference to other sections			
For personal protection see se	ction 8.		
SECTION 7: Handling and storage			
7.1 Precautions for safe handling			
Advice on safe handling	: not required under normal use		
Advice on protection against fire and explosion	: The product is not flammable.		
Hygiene measures	: Wash hands before breaks and at the end of workday.		
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Requirements for storage areas and containers	<ul> <li>To maintain product quality, do not store in heat or direct sunlight. Keep away from sources of ignition - No smoking. Keep away from combustible material. Protect from contamination. Protect from moisture.</li> </ul>
Storage class (TRGS 510)	: 13, Non Combustible Solids
7.3 Specific end use(s) Specific use(s)	: Always read the label and product information before use.

# **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

## Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
potassium nitrate	Workers	Inhalation	Systemic effects	36,7 mg/m3
	Workers	Skin contact	Systemic effects	20,8 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Ingestion	Systemic effects	12,5 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Skin contact	Systemic effects	12,5 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Inhalation	Systemic effects	10,9 mg/m3

## Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
potassium nitrate	Fresh water 0,45 n	
	Marine water	0,045 mg/l
	Ceiling Limit Value	4,5 mg/l
	Sewage treatment plant	18 mg/l

#### 8.2 Exposure controls



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<b>Personal protective equipm</b> Eye protection	ent : In case of dust formation: Tightly fitting safety goggles	
Hand protection Material	: Gloves	
Skin and body protection	: Wearing of closed work clothing is recommended.	
Respiratory protection	: Particle filtering disposable mask DIN EN 149 with filter FFP2.	
Environmental exposure controls		
General advice	: Do not empty into drains. Retain and dispose of contaminated wash water.	

# **SECTION 9: Physical and chemical properties**

# 9.1 Information on basic physical and chemical properties

Physical state	: crystalline
Colour	: various
Odour	: odourless
рН	: ca. 5, Concentration: 100 g/l (20 °C)
Melting point/range	: No data available
Boiling point/boiling range	: Not applicable
Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: The product is not flammable.
Upper explosion limit	: Not explosive



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Lower explosion limit	: Not explosive
Vapour pressure	: Not applicable
Relative vapour density	: Not applicable
Relative density	: Not applicable
Bulk density	: ca. 1.200 kg/m <sup>3</sup>
Solubility(ies) Water solubility	: soluble
Partition coefficient: n- octanol/water	: Not applicable
Decomposition temperature	: ca. 130 °C To avoid thermal decomposition, do not overheat.
Viscosity Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties <b>Particle characteristics</b> Particle Size Distribution	: Method: Manual of tests and criteria. Test O.1 (United Nations Recommendations on the Transport of Dangerous Goods). Not considered an oxidizing substance
	: D50 = 390 μm D50 Tolerance range = 312 μm - 468 μm Measurement technique: Sieve analysis

### 9.2 Other information

No data available

# **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



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Hazardous reactions	: No decomposition if stored and applied as directed.
10.4 Conditions to avoid	
Conditions to avoid	: Temperature 130 degrees Celsius Heat, flames and sparks.
10.5 Incompatible materials	
Materials to avoid	: Acids Bases Organic materials Powdered metals
10.6 Hazardous decomposition	products
Hazardous decomposition	: Nitrogen oxides (NOx)

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Hazardous decomposition	: Nitrogen oxides (NO)
products	ammonia

# **SECTION 11: Toxicological information**

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

### Acute toxicity

# **Product:**

Acute oral toxicity	<ul> <li>Assessment: The substance or mixture has no acute oral toxicity Remarks: Calculation method</li> </ul>
<u>Components:</u> potassium nitrate: Acute oral toxicity	: LD50 (Rat): > 2.000 mg/kg
Acute inhalation toxicity	: LC50 (Rat): 0,527 mg/l

#### Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg

### Skin corrosion/irritation

# Product:

Species: Rabbit Method: OECD Test Guideline 404 Result: non-irritant

#### **Components:**

#### potassium nitrate: Species: Rabbit



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Result: No skin irritation

#### Serious eye damage/eye irritation

#### Product:

Species: Rabbit Method: OECD Test Guideline 405 Result: non-irritant

#### **Components:**

potassium nitrate: Species: Rabbit Result: No eye irritation

### Respiratory or skin sensitisation

#### Product:

Result: non-sensitizing

### **Components:**

potassium nitrate: Result: non-sensitizing

#### germ cell mutagenicity

#### Product:

Genotoxicity in vitro

: Remarks: Contains no hazardous ingredients according to GHS

# Components:

potassium nitrate:

Genotoxicity in vitro

: Remarks: No data available

#### Carcinogenicity

### Product:

Remarks: Contains no ingredient listed as a carcinogen

### Components:

### potassium nitrate:

Remarks: Did not show carcinogenic effects in animal experiments.



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Reproductive toxicity	
Product:	
Effects on fertility	: Remarks: Contains no ingredient listed as toxic to reproduction
Effects on foetal development	: Remarks: Contains no ingredient listed as toxic to reproduction
Components:	
<b>potassium nitrate:</b> Effects on fertility	
Effects of fertility	Remarks: No toxicity to reproduction
Effects on foetal development	: Remarks: Did not show teratogenic effects in animal experiments.

### STOT - single exposure

#### Product:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### **Components:**

#### potassium nitrate:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### STOT - repeated exposure

#### Product:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### **Components:**

#### potassium nitrate:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### **Repeated dose toxicity**

#### Components:

potassium nitrate: Species: Rat NOAEL: >= 1.500 mg/kg



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Exposure time: 1 d

### Aspiration hazard

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

### 11.2 Information on other hazards

### **Endocrine disrupting properties**

No data available

#### Experience with human exposure

#### Product:

General Information : Danger of methaemoglobin formation.

#### **Further information**

### Product:

Remarks: The toxicological data has been taken from products of similar composition.

### **SECTION 12: Ecological information**

#### 12.1 Toxicity

Pr	odı	uct	:
_			

Ecotoxicology Assessment Toxicity Data on Soil	:	Not expected to adsorb on soil.
<u>Components:</u> potassium nitrate:		
Toxicity to fish	:	LC50 (Fish): > 100 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 490 mg/l Exposure time: 48 h
Toxicity to algae	:	LC50 : >= 1.700 mg/l Exposure time: 10 d

### 12.2 Persistence and degradability

<u>Components:</u> potassium nitrate:	
Biodegradability	: Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.

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12.3 Bioaccumulative potential		
Product: Bioaccumulation	: Remarks: Does not accumulate in organisms.	
<u>Components:</u> potassium nitrate: Bioaccumulation	: Remarks: Does not bioaccumulate.	
12.4 Mobility in soil		
Product: Distribution among environmental compartments	: Remarks: Slightly mobile in soils	
Components:		
<b>potassium nitrate:</b> Mobility	: Remarks: No data available	
12.5 Results of PBT and vPvB as	sessment	
Product:		
Assessment	: Remarks: No data available	
<u>Components:</u> potassium nitrate: Assessment	: This substance is not considered to be persistent, bioaccumulating and toxic (PBT) This substance is not considered to be very persistent and very bioaccumulating (vPvB)	
12.6 Endocrine disrupting prope	rties	
No data available		
12.7 Other adverse effects		
Product: Additional ecological information	: Additional ecological information The following ecotoxicological data refer to: potassium nitrate	
SECTION 13: Disposal considerations		

### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Product

: Dispose of wastes in an approved waste disposal facility.



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Contaminated packaging

: Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

## **SECTION 14: Transport information**

### 14.1 UN number or ID number

Not regulated as a dangerous good

#### 14.2 UN proper shipping name

Not regulated as a dangerous good

# 14.3 Transport hazard class(es)

Not regulated as a dangerous good

#### 14.4 Packing group

Not regulated as a dangerous good

#### 14.5 Environmental hazards

Not regulated as a dangerous good

### 14.6 Special precautions for user

Not applicable

#### 14.7 Maritime transport in bulk according to IMO instruments

Remarks

: Not relevant

### **SECTION 15: Regulatory information**

# 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Water contaminating class (Germany)	: WGK 1 slightly water endangering	

Other regulations : This product is subject to Regulation (EU) 2019/1148; suspicious transactions, disappearance or theft of the product must be reported to the relevant authority.

### **15.2 Chemical Safety Assessment**

Not relevant

#### **SECTION 16: Other information**

### Full text of H-Statements

H272

: May intensify fire; oxidizer.

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#### Full text of other abbreviations

Ox. Sol.

: Oxidizing solids

(Q)SAR - (Quantitative) Structure Activity Relationship; 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; ASTM -American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; DIN - Standard of the German Institute for Standardisation; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail: SADT - Self-Accelerating Decomposition Temperature: SDS - Safety Data Sheet: TRGS - Technical Rule for Hazardous Substances; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS -Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice

### Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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