

Version: 2.5 Date of last issue: 23.12.2022 Date of first issue: 12.04.2016 Revision Date: 07.04.2023

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

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



Revision Date:

07.04.2023

Version: 2.5 Date of last issue: 23.12.2022 Date of first issue: 12.04.2016

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	 Move to fresh air. If symptoms persist, call a physician. If unconscious place in recovery position and seek medical advice. 		
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



Version: 2.5 Date of last issue: 23.12.2022 Date of first issue: 12.04.2016

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.		
6.2 Environmental precautions 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.		
3 / 13			

Revision Date: 07.04.2023



Version: 2.5 Date of last issue: 23.12.2022 Date of first issue: 12.04.2016 Revision Date: 07.04.2023

Requirements for storage areas and containers	 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.
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



Revision Date:

07.04.2023

Version: 2.5 Date of last issue: 23.12.2022 Date of first issue: 12.04.2016

Personal protective equipm 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



Version: 2.5 Date of last issue: 23.12.2022 Date of first issue: 12.04.2016 Revision Date: 07.04.2023

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 ³
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 Particle characteristics 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



Version: 2.5 Date of last issue: 23.12.2022 Date of first issue: 12.04.2016 **Revision Date:** 07.04.2023

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	 Assessment: The substance or mixture has no acute oral toxicity Remarks: Calculation method
<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



Revision Date:

07.04.2023

Version: 2.5 Date of last issue: 23.12.2022 Date of first issue: 12.04.2016

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.



Version: 2.5 Date of last issue: 23.12.2022 Date of first issue: 12.04.2016 Revision Date: 07.04.2023

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:	
potassium nitrate: 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



Version: 2.5 Date of last issue: 23.12.2022 Date of first issue: 12.04.2016

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.

Revision Date: 07.04.2023



Version: 2.5 Date of last issue: 23.12.2022 Date of first issue: 12.04.2016 Revision Date: 07.04.2023

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:		
potassium nitrate: 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.



Revision Date:

07.04.2023

Version: 2.5 Date of last issue: 23.12.2022 Date of first issue: 12.04.2016

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.

12 / 13



Revision Date:

07.04.2023

Version: 2.5 Date of last issue: 23.12.2022 Date of first issue: 12.04.2016

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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