

Trade name: POTASSIUM NITRATE**Product no.:** 017-40533 -01**Current version :** 2.2.1, issued: 02.09.2014**Replaced version:** 2.2.0, issued: 13.03.2012**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name****POTASSIUM NITRATE****Identification numbers**

CAS no. 7757-79-1

EC no. 231-818-8

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

Chemical processes general

1.3 Details of the supplier of the safety data sheet**Address**

Shimadzu Europa GmbH

Albert-Hahn-Str. 6-10

47269 Duisburg

Telephone no. +49 (0)203 - 7687-0

Fax no. +49 (0)203 - 711045

Information provided by / telephone

Tel.: +49 (0)203 - 7687-0

Advice on Safety Data Sheet

sdb_info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification in accordance with Directive 67/548/EEC or 1999/45/EC**

O; R8

2.2 Label elements**Labelling according to Directive 1999/45/EC****Hazard symbols**

Oxidizing

R phrases

8

Contact with combustible material may cause fire.

S phrases

16

Keep away from sources of ignition — No smoking.

17

Keep away from combustible material.

41

In case of fire and/or explosion do not breathe fumes.

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients**3.1 Substances****Chemical characterization**

Substance name POTASSIUM NITRATE

Identification numbers

CAS no. 7757-79-1

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3.2 Mixtures

Not applicable. The product is not a mixture.

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In case of persisting adverse effects, consult a physician. Change contaminated, saturated clothing.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air.

After skin contact

Wash off immediately with soap and water.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.).

After ingestion

Seek medical advice immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

No data available.

Unsuitable extinguishing media

No data available.

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Nitrous oxides (NO_x)

5.3 Advice for firefighters

Product itself does not burn. Adapt extinguisher and fire-fighting measures to fire in the environment.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Refer to protective measures listed in sections 7 and 8. Avoid dust formation.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Take up mechanically. When picked up, treat material as prescribed under heading "Disposal considerations".

6.4 Reference to other sections

No data available.

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

No special measures necessary if stored and handled as prescribed.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Do not inhale dust.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition.

7.2 Conditions for safe storage, including any incompatibilities**Technical measures and storage conditions**

Store in a dry place.

Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage.

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Do not store with combustible materials.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

No parameters available for monitoring.

8.2 Exposure controls**Appropriate engineering controls**

No data available.

Personal protective equipment**Respiratory protection**

No special measures required.

Eye / face protection

Safety glasses (EN 166)

Hand protection

In case of intensive contact, wear protective gloves (EN 374). Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Form/Colour**

crystalline powder

white

Odour

odourless

Odour threshold

No data available

pH value

No data available

Boiling point / boiling range

No data available

Melting point / melting range

Value	334	°C
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Decomposition point / decomposition range

Value	> 400	°C
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Flash point

Not applicable

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No data available

Oxidising properties

No data available

Explosive properties

No data available

Flammability (solid, gas)

No data available

Lower flammability or explosive limits

No data available

Upper flammability or explosive limits

No data available

Vapour pressure

No data available

Vapour density

No data available

Evaporation rate

No data available

Relative density

No data available

Density

Value	2.11	g/cm ³
Reference temperature	20	°C

Solubility in water

Value	320	g/l
Reference temperature	20	°C

Solubility(ies)

No data available

Partition coefficient: n-octanol/water

No data available

Viscosity

No data available

9.2 Other information**Other information**

No data available.

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

No data available.

10.2 Chemical stability

No data available.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

None, if handled according to order.

10.5 Incompatible materials

Reactions with metals in powder form. Reactions with combustible substances. Reactions with organic substances.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

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SECTION 11: Toxicological information**11.1 Information on toxicological effects**

Acute oral toxicity		
LD50	3540	mg/kg
Species	rat	
Source	RTECS	
Acute dermal toxicity		
No data available		
Acute inhalational toxicity		
No data available		
Skin corrosion/irritation		
No data available		
Serious eye damage/irritation		
No data available		
Respiratory or skin sensitisation		
No data available		
Germ cell mutagenicity		
No data available		
Reproduction toxicity		
No data available		
Carcinogenicity		
No data available		
STOT-single exposure		
No data available		
STOT-repeated exposure		
No data available		
Aspiration hazard		
No data available		
Delayed and immediate effects as well as chronic effects from short and long-term exposure		
Irritates the mucous membrane.		

SECTION 12: Ecological information**12.1 Toxicity**

Toxicity to fish (acute)		
LC50	1378	mg/l
Duration of exposure	96	h
Species	Poecilia reticulata	
Source	Merck	
Toxicity to fish (chronic)		
No data available		
Toxicity to Daphnia (acute)		
EC50	490	mg/l
Duration of exposure	48	h
Species	Daphnia magna	
Source	Merck	

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No data available

Toxicity to algae (acute)

No data available

Toxicity to algae (chronic)

No data available

Bacteria toxicity

No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

12.7 Other information**Other information**

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information**14.1 Transport ADR/RID/ADN**

Class	5.1
Classification code	O2
Packing group	III
Hazard identification no.	50
UN number	UN1486
Technical name	POTASSIUM NITRATE
Tunnel restriction code	E
Label	5.1

14.2 Transport IMDG

Class	5.1
Packing group	III
UN number	UN1486
Proper shipping name	POTASSIUM NITRATE
EmS	F-A+S-Q
Label	5.1

14.3 Transport ICAO-TI / IATA

Class	5.1
Packing group	III
UN number	UN1486
Proper shipping name	Potassium nitrate
Label	5.1

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14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15: Regulatory information

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

No data available.

15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

EC Directive 67/548/EC resp. 1999/45/EC as amended in each case.

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Department issuing safety data sheet

UMCO Umwelt Consult GmbH

Georg-Wilhelm-Str. 183 , D-21107 Hamburg

Tel.: +49 40 / 79 02 36 300 Fax: +49 40 / 79 02 36 357 e-mail: umco@umco.de

This information is based on our present state of knowledge and experience.

The security data sheet describes products with a view to the security requirements.

However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.