

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

1.1. Product identifier

Product form	: Substance
Trade name	: Potanit
IUPAC name	: Potassium nitrate
EC-No.	: 231-818-8
CAS-No.	: 7757-79-1
REACH registration No	: 01-2119488224-35
Type of product	: Pure substance
Formula	: KNO ₃
Synonyms	: MULTI K GG / nitrate of potash / nitrate of potassium / nitrate volumetrical standard / nitre / nitric acid potassium salt / Potassium nitrate / saltpeter / saltpetre / vicknite
BIG no	: 10150

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

1.2.1. Relevant identified uses

Main use category	: Industrial use
Industrial/Professional use spec	: Fertilizer
Use of the substance/mixture	: Agriculture.
Function or use category	: Fertilisers

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Anorel NV
Lintsesteenweg 632
2540 Hove
T +3234880233
anorel@anorel.net - www.anorel.net

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Llandough Hospital	Penarth CF64 2XX Cardiff	0344 892 0111	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Oxidising Solids, Category 3 H272

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

May intensify fire; oxidiser.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS03

Signal word (CLP)	: Warning
Hazard statements (CLP)	: H272 - May intensify fire; oxidiser.
Precautionary statements (CLP)	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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P220 - Keep/Store away from clothing and other combustible materials.
P221 - Take any precaution to avoid mixing with combustibles...
P370+P378 - In case of fire: Use ... to extinguish.

2.3. Other hazards

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%
potassium nitrate	(CAS-No.) 7757-79-1 (EC-No.) 231-818-8 (REACH-no) 01-2119488224-35	100

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation : After inhalation. Coughing. May cause irritation or asthma-like symptoms.

Symptoms/effects after skin contact : Red skin.

Symptoms/effects after eye contact : Redness of the eye tissue.

Symptoms/effects after ingestion : On ingestion in large quantities: Gastrointestinal pain. nausea, vomiting. Diarrhea. Large quantities. Blood in stool. Methemoglobinemia.

Chronic symptoms : Skin rash/inflammation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

Unsuitable extinguishing media : Unsuitable extinguishing media. None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : May intensify fire; oxidiser.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to heat: have neighbourhood close doors and windows.

Firefighting instructions : Do not move the load if exposed to heat. Dilute toxic gases with water spray.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Reactivity hazard: compressed air/oxygen apparatus. Reactivity hazard: gas-tight suit.

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking.

Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

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6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Pump up the product into a suitably labelled spare container.
Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.
Incompatible materials : combustible materials.
Storage temperature : 20 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Potanit (7757-79-1)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	20.8 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	36.7 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	12.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	10.9 mg/m ³
Long-term - systemic effects, dermal	12.5 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.45 mg/l
PNEC aqua (marine water)	0.045 mg/l
PNEC aqua (intermittent, freshwater)	4.5 mg/l
PNEC (STP)	
PNEC sewage treatment plant	18 mg/l

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Insulated gloves. Safety glasses. Dustproof clothing. Keep away from any flames or sparking source.

Hand protection:

Protective gloves

Eye protection:

Standard EN 166 - Personal eye-protection.

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

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In case of insufficient ventilation, wear suitable respiratory equipment. Dust production: dust mask with filter type P2



Environmental exposure controls:

Avoid release to the environment. Local exhaust and general ventilation must be adequate to meet exposure standards.

Consumer exposure controls:

Do not eat, drink or smoke in areas where product is used. Remove contaminated clothing immediately.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystals.
Molecular mass	: 101.1 g/mol
Colour	: Colourless. white.
Odour	: Odourless.
Odour threshold	: No data available
pH	: 6 - 8 (5 %)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 334 °C
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: > 600 °C
Flammability (solid, gas)	: Non flammable
Vapour pressure	: < 0.001 kPa
Relative vapour density at 20 °C	: No data available
Relative density	: 2.1
Density	: 2100 kg/m ³
Solubility	: Soluble in water. Soluble in glycerol. Water: 32 g/100ml Ethanol: 0.16 g/100ml
Log Pow	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: May intensify fire; oxidiser.
Explosive limits	: Not applicable

9.2. Other information

Minimum ignition energy	: Not applicable
SADT	: Not applicable
VOC content	: 0 %
Other properties	: Translucent.

SECTION 10: Stability and reactivity

10.1. Reactivity

Decomposes on exposure to temperature rise. On burning: release of toxic and corrosive gases/vapours hydrogen chloride carbon monoxide - carbon dioxide. Reacts violently with many compounds. May cause or intensify fire; oxidiser.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts violently with (some) acids. combustible materials.

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10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Combustible materials.

10.6. Hazardous decomposition products

On burning: release of (highly) toxic gases/vapours. Potassium oxides. potassium nitrite. Nitrous fumes. Reacts violently with (some) acids.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Potanit (7757-79-1)	
LD50 oral rat	3750 mg/kg bodyweight (Rat)
LD50 dermal rat	> 5000 mg/kg bodyweight
LC50 inhalation rat (mg/l)	> 0.527 mg/l/4h

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: 6 - 8 (5 %)

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: 6 - 8 (5 %)

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Obstructs oxygen absorption. Practically non-toxic if swallowed (LD50 oral 2000/5000 mg/kg). Slightly irritant to skin. Slightly irritant to respiratory organs.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Ecology - air : Not dangerous for the ozone layer.

Ecology - water : Not harmful to fish. Mild water pollutant (surface water). May cause eutrophication at high concentrations.

Potanit (7757-79-1)	
LC50 fish 1	1378 mg/l (96 h, Poecilia reticulata, Static system)
ErC50 (algae)	> 1700 mg/l
ErC50 (other aquatic plants)	10d

12.2. Persistence and degradability

Potanit (7757-79-1)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

Potanit (7757-79-1)	
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

Potanit (7757-79-1)	
Ecology - soil	Low potential for adsorption.

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12.5. Results of PBT and vPvB assessment

Potanit (7757-79-1)

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

12.6. Other adverse effects

Other adverse effects : May cause eutrophication at high concentrations.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : LWCA (the Netherlands): KGA category 05.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

European List of Waste (LoW) code : 15 01 10* - packaging containing residues of or contaminated by dangerous substances
06 10 02* - wastes containing dangerous substances

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1486	1486	1486	1486	1486
14.2. UN proper shipping name				
POTASSIUM NITRATE	POTASSIUM NITRATE	Potassium nitrate	POTASSIUM NITRATE	POTASSIUM NITRATE
Transport document description				
UN 1486 POTASSIUM NITRATE, 5.1, III, (E)	UN 1486 POTASSIUM NITRATE, 5.1, III	UN 1486 Potassium nitrate, 5.1, III	UN 1486 POTASSIUM NITRATE, 5.1, III	UN 1486 POTASSIUM NITRATE, 5.1, III
14.3. Transport hazard class(es)				
5.1	5.1	5.1	5.1	5.1
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

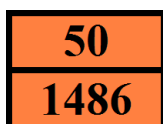
Transport regulations (ADR) : Subject
Classification code (ADR) : O2
Limited quantities (ADR) : 5kg
Excepted quantities (ADR) : E1
Packing instructions (ADR) : P002, IBC08, LP02, R001
Special packing provisions (ADR) : B3
Mixed packing provisions (ADR) : MP10
Portable tank and bulk container instructions (ADR) : T1, BK1, BK2
Portable tank and bulk container special provisions (ADR) : TP33
Tank code (ADR) : SGAV
Tank special provisions (ADR) : TU3
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Bulk (ADR) : VC1, VC2, AP6, AP7
Special provisions for carriage - Loading, unloading and handling (ADR) : CV24

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Hazard identification number (Kemler No.) : 50
Orange plates :



Tunnel restriction code (ADR) : E
EAC code : 1Z

- Transport by sea

Transport regulations (IMDG) : Subject
Special provisions (IMDG) : 964, 967
Limited quantities (IMDG) : 5 kg
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P002, LP02
IBC packing instructions (IMDG) : IBC08
IBC special provisions (IMDG) : B3
Tank instructions (IMDG) : T1, BK2, BK3
Tank special provisions (IMDG) : TP33
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-Q
Stowage category (IMDG) : A
Properties and observations (IMDG) : White crystals or powder. Soluble in water. Mixtures with combustible material are readily ignited and may burn fiercely. Harmful if swallowed.

- Air transport

Transport regulations (IATA) : Subject to the provisions
PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y546
PCA limited quantity max net quantity (IATA) : 10kg
PCA packing instructions (IATA) : 559
PCA max net quantity (IATA) : 25kg
CAO packing instructions (IATA) : 563
CAO max net quantity (IATA) : 100kg
ERG code (IATA) : 5L

- Inland waterway transport

Classification code (ADN) : O2
Limited quantities (ADN) : 5 kg
Excepted quantities (ADN) : E1
Carriage permitted (ADN) : B
Equipment required (ADN) : PP
Provisions prior to loading (ADN) : LO04
Provisions for carriage in bulk (ADN) : CO02
Number of blue cones/lights (ADN) : 0
Additional requirements/Remarks (ADN) : CO02 and LO04 apply only when this substance is carried in bulk or without packaging

- Rail transport

Transport regulations (RID) : Subject
Classification code (RID) : O2
Limited quantities (RID) : 5kg
Excepted quantities (RID) : E1
Packing instructions (RID) : P002, IBC08, LP02, R001
Special packing provisions (RID) : B3
Mixed packing provisions (RID) : MP10
Portable tank and bulk container instructions (RID) : T1, BK1, BK2
Portable tank and bulk container special provisions (RID) : TP33
Tank codes for RID tanks (RID) : SGAV
Special provisions for RID tanks (RID) : TU3

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Transport category (RID)	: 3
Special provisions for carriage – Bulk (RID)	: VW8
Special provisions for carriage - Loading, unloading and handling (RID)	: CW24
Colis express (express parcels) (RID)	: CE11
Hazard identification number (RID)	: 50

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Potanit is not on the REACH Candidate List

Potanit is not on the REACH Annex XIV List

VOC content : 0 %

15.1.2. National regulations

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:

Ox. Sol. 3	Oxidising Solids, Category 3
H272	May intensify fire; oxidiser.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product