

## 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	: KNO3
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](mailto:anorel@anorel.net) - [www.anorel.net](http://www.anorel.net)

### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Israel	Israel Poison Information Center Rambam Health Care Campus	6 Ha'Aliya Street 31096 Haifa	+972 4 854 1900	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
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.

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### 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/sparks/open flames/hot surfaces. - No smoking  
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 ... for extinction

### 2.3. Other hazards

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

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-phrases: see section 16

### 3.2. Mixture

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/injuries after inhalation : After inhalation. Coughing. May cause irritation or asthma-like symptoms.  
Symptoms/injuries after skin contact : Red skin.  
Symptoms/injuries after eye contact : Redness of the eye tissue.  
Symptoms/injuries 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.

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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.

##### 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 <sup>3</sup>
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	12.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	10.9 mg/m <sup>3</sup>
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

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### 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:

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 %)
pH solution	: 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 <sup>3</sup>
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.

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Explosive limits : Not applicable

### 9.2. Other information

Minimum ignition energy : Not applicable  
SADT : Not applicable  
VOC content : Not applicable  
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; oxidizer.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Reacts violently with (some) acids. combustible materials.

### 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)

Specific target organ toxicity (single exposure) : Not classified (Based on available data, the classification criteria are not met)

Specific target organ toxicity (repeated exposure) : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified

## 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 2	1378 mg/l (LC50; 96 h; Poecilia reticulata)
LC50 other aquatic organisms 2	490 mg/l (48 h; Daphnia magna)
ErC50 (algae)	> 1700 mg/l
ErC50 (other aquatic plants)	10d

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### 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

### 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.

### 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

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 : 06 10 02\* - wastes containing dangerous substances

## SECTION 14: Transport information

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

### 14.1. UN number

UN-No. (ADR) : 1486  
UN-No. (IMDG) : 1486  
UN-No. (IATA) : 1486  
UN-No. (ADN) : 1486  
UN-No. (RID) : 1486

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : POTASSIUM NITRATE  
Proper Shipping Name (IMDG) : POTASSIUM NITRATE  
Proper Shipping Name (IATA) : Potassium nitrate  
Proper Shipping Name (ADN) : POTASSIUM NITRATE  
Proper Shipping Name (RID) : POTASSIUM NITRATE  
Transport document description (ADR) : UN 1486 POTASSIUM NITRATE, 5.1, III, (E)  
Transport document description (IMDG) : UN 1486 POTASSIUM NITRATE, 5.1, III  
Transport document description (IATA) : UN 1486 Potassium nitrate, 5.1, III  
Transport document description (ADN) : UN 1486 POTASSIUM NITRATE, 5.1, III  
Transport document description (RID) : UN 1486 POTASSIUM NITRATE, 5.1, III

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 5.1  
Danger labels (ADR) : 5.1



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### IMDG

Transport hazard class(es) (IMDG) : 5.1

Danger labels (IMDG) : 5.1



### IATA

Transport hazard class(es) (IATA) : 5.1

Hazard labels (IATA) : 5.1



### ADN

Transport hazard class(es) (ADN) : 5.1

Danger labels (ADN) : 5.1



### RID

Transport hazard class(es) (RID) : 5.1

Danger labels (RID) : 5.1



### 14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

### 14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : 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

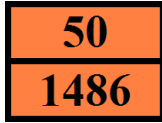
Packing instructions (ADR) : P002, IBC08, LP02, R001

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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
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



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### - 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
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 : Not applicable

#### 15.1.2. National regulations

##### Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 1 or 2; ID No. 346)

WGK remark : Classification water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 2)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### 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

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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*