

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

1.1. Product identifier

Product form	: Substance
Name	: Potassium Nitrate
EC-No.	: 231-818-8
CAS-No.	: 7757-79-1
REACH registration No	: 01-2119488224-35-0032
Formula	: KNO ₃

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

1.2.1. Relevant identified uses

Use of the substance/mixture	: Pharmaceutical industry Food-stuff industry Ink for offset printing
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1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

JOST CHEMICAL CO.
8150 Lackland
P.O. Box MO 63114
Saint Louis - USA
T +1 314-428-4300 - F +1 314-428-4366
sds@jostchemical.com

Distributor

JOST CHEMICAL EUROPE SPRL
Rue du Bois Portal 30/1-3
5300 Andenne - BELGIQUE
T +32 85 552 655 - F +32 85 552 654
info@josteurope.com

1.4. Emergency telephone number

Emergency number	: For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night United States and Canada: 1-800-424-9300 / +1 703-527-3887 Global: +1 703-741-5970
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Ox. Sol. 3 H272

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

Oxidizing. Contact with combustible material may cause fire. Presents no particular risk to the environment, provided the disposal requirements (see section 13) and national or local regulations are complied with.

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. P221 - Take any precaution to avoid mixing with combustible materials. P280 - Wear protective clothing, protective gloves, eye protection, face protection.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Potassium Nitrate	(CAS-No.) 7757-79-1 (EC-No.) 231-818-8 (REACH-no) 01-2119488224-35-0032	99 - 100	Ox. Sol. 3, H272

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	: Move the affected person away from the contaminated area and into the fresh air. Obtain medical attention if breathing difficulty persists.
First-aid measures after skin contact	: Wash skin thoroughly with mild soap and water. Immediately remove contaminated clothing or footwear. In case of redness or irritation, call a doctor.
First-aid measures after eye contact	: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult an eye specialist.
First-aid measures after ingestion	: Induce vomiting. Rinse mouth out with water. Never give anything by mouth to an unconscious person.

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

Symptoms/effects	: In case of repeated or prolonged exposure : Methemoglobinemia. Anemia. Damage to kidneys.
Symptoms/effects after ingestion	: On ingestion in large quantities: Nausea. Vomiting.

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 : Foam. Carbon dioxide. Dry powder. For small fire: Water spray. For large fire: Water.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: May intensify fire; oxidiser.
Hazardous decomposition products in case of fire	: Toxic gases are released. Nitrogen oxides. Potassium oxides. potassium nitrite.

5.3. Advice for firefighters

Firefighting instructions	: Contain the extinguishing fluids by bunding. Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Complete protective clothing. Self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Mechanically ventilate the spillage area. Do not smoke. No flames, no sparks. Eliminate all sources of ignition.

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

Do not allow product to spread into the environment. Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

For containment	: Sweep up or vacuum up the product. Collect up the product and place it in a spare container suitably labelled. Do not absorb in saw-dust or other combustible absorbents.
Methods for cleaning up	: Clean contaminated surfaces with an excess of water. Dispose of contaminated materials in accordance with current regulations.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Extraction to remove dust at its source. Avoid contact with skin and eyes. Avoid creating or spreading dust. Avoid contact with : Combustible materials.
- Hygiene measures : Do not drink, eat or smoke in the workplace. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Does not require any specific or particular technical measures.
- Storage conditions : Store in original container. Store in tightly closed containers. Keep in a well-ventilated room. Keep away from sources of ignition. Keep away from heat. Keep away from incompatible materials.
- Incompatible materials : Flammable materials. Combustible materials. Powdered metals. Organic materials. reducing materials. Acids. Sulphides.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Extraction to remove dust at its source.

Hand protection:

Nitrile-rubber protective gloves. The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN 374. Breakthrough time : refer to the recommendations of the supplier

Eye protection:

Safety glasses

Respiratory protection:

If dust are formed : Gas mask with filter type P1/FFP1

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid
- Appearance : Crystalline powder. Pellet.
- Molecular mass : 101.103 g/mol
- Colour : Colourless. White.
- Odour : odourless.
- Odour threshold : No data available
- pH : 5 - 7.5 (20 °C)
- pH solution : 50 g/l
- Relative evaporation rate (butylacetate=1) : No data available
- Relative evaporation rate (ether=1) : Not determined
- Melting point : 335 °C (1013 hPa)
- Freezing point : Not applicable
- Boiling point : Decomposes before boiling
- Flash point : Not applicable
- Auto-ignition temperature : > Melting point
- Decomposition temperature : 1385 °C
- Flammability (solid, gas) : Non flammable
- Vapour pressure : Negligible.
- Relative vapour density at 20 °C : Not determined
- Relative density : 2.1 (20 °C)
- Solubility : Water: > 100 g/l (25 °C)
- Log Pow : Not applicable (inorganic substance)
- Viscosity, kinematic : Not applicable

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Viscosity, dynamic	: No data available
Explosive properties	: Not explosive.
Oxidising properties	: Oxidizing.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Oxidizing. Explosive when mixed with combustible material.

10.2. Chemical stability

Oxidizing.

10.3. Possibility of hazardous reactions

Can react violently with. Incompatible materials.

10.4. Conditions to avoid

No flames, no sparks. Eliminate all sources of ignition. Heat.

10.5. Incompatible materials

Flammable materials. combustible materials. Powdered metals. Organic materials. reducing materials. Acids. Sulphides.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

Potassium Nitrate (7757-79-1)	
LD50 oral rat	> 2000 mg/kg (OECD 425 method)
LD50 dermal rat	> 5000 mg/kg (OECD 402 method)
LC50 inhalation rat	> 0.527 mg/l/4h (OECD 403 method)

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 5 - 7.5 (20 °C)
Additional information	: Not irritating to rabbits on cutaneous application (OECD 404 method) (Results obtained on a similar product)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 5 - 7.5 (20 °C)
Additional information	: Not irritating to eyes (OECD 437 method) (OECD 405 method)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (OECD 429 method) (Results obtained on a similar product)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: In vitro Mammalian Cell Gene Mutation Test : negative (OECD 476 method) Bacterial mutation test : Negative (OECD 417 method) Chromosomal aberrations : Negative
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)
Additional information	: Developmen : NOAEL : >=1500 mg/kg/ days (OECD 422 method)
STOT-single exposure	: Not classified (Lack of data)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)

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Potassium Nitrate (7757-79-1)	
NOAEL (subacute, oral, animal/male, 28 days)	>= 1500 mg/kg bodyweight (OECD 422 method)
Aspiration hazard	: Not classified (Technical impossibility to obtain the data)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Avoid discharge of the product as is into the environment.
Acute aquatic toxicity	: Not classified (Based on available data, the classification criteria are not met)
Chronic aquatic toxicity	: Not classified (Based on available data, the classification criteria are not met)

Potassium Nitrate (7757-79-1)	
LC50 fish	1378 mg/l/96h (Poecilia reticulata) (OECD 203 method)
EC50 Daphnia	490 mg/l/48 h (Daphnia magna)
LC50, algae	> 1700 mg/l (10 days)
EC50, Bacteria	> 1000 mg/l (3 Hours)
NOEC, microorganisms	180 mg/l (OECD 204 method)

12.2. Persistence and degradability

Potassium Nitrate (7757-79-1)	
Persistence and degradability	Nitrogen and its various forms follow the nitrification / denitrification natural cycle.

12.3. Bioaccumulative potential

Potassium Nitrate (7757-79-1)	
Log Pow	Not applicable (inorganic substance)

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Potassium Nitrate (7757-79-1)	
Results of PBT assessment	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
	This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available




SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of in accordance with relevant local regulations.

SECTION 14: Transport information

In accordance with ADR / IATA / IMDG

ADR	IMDG	IATA
14.1. UN number		
1486	1486	1486
14.2. UN proper shipping name		
POTASSIUM NITRATE	POTASSIUM NITRATE	Potassium nitrate
14.3. Transport hazard class(es)		
5.1	5.1	5.1
		
14.4. Packing group		
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

14.6. Special precautions for user

- Overland transport

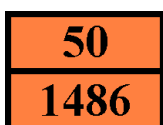
Classification code (ADR)	: O2
Limited quantities (ADR)	: 5kg

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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, BK3
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

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
Stowage and handling (IMDG)	: SW23

- Air transport

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
Special provisions (IATA)	: A803
ERG code (IATA)	: 5L

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

Potassium Nitrate is not on the REACH Candidate List

Potassium Nitrate is not on the REACH Annex XIV List

15.1.2. National regulations

No additional information available

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15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

This sheet has been revised completely (changes were not marked).

Data sources : ECHA - European Chemicals Agency. REACH registration.

Other information : Safety data sheet established by : LISAM SERVICES - TELEGIS
17 rue de la Couture F-60400 Passel
www.lisam-telegis.fr.

Full text of H- and EUH-statements:

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

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