Potassium Nitrate

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

1.1 Product identifier

Product name:	Potassium Nitrate
CAS Number:	7757-79-1
EC Number:	231-818-8

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

Recommended use: Laboratory chemicals, Industrial & for professional use only

1.3 Details of the supplier of the safety data sheet

Company name:	East Harbour Group Ltd 20 Clough Road, Severalls Industrial Park Colchester, Essex, CO4 9QS United Kingdom
Telephone:	+44 (0) 333 242 0100
Email:	info@eastharbourgroup.com

1.4 Emergency telephone number

Emergency telephone:	0800 246 1274

Section 2: Hazardous identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Oxidizing solids (Category 3)

Classification according to EU Directives 67/548/EEC or 1999/45/EC
Contact with combustible material may cause fire.

2.2 Label elements

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

Pictogram

Oxidizing

Potassium Nitrate

Signal word	Warning
Hazard statement(s) H272	May intensify fire; oxidiser.
Precautionary statement(s) P220	Keep/Store away from clothing/ combustible materials.
Supplemental Hazard Statements	None

According to European Directive 67/548/EEC as amended

Hazard symbol(s)

Oxidizing

R-phrase(s) R8	Contact with combustible material may cause fire.
S-phrases(s)	None

2.3 Other hazards
None

Section 3: Composition/information on ingredients

3.1 Substances
Substances

Formula:	KNO_3
Molecular Weight:	101,10 g/mol

Section 4: First aid measures

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Wash off with soap and plenty of water. Consult a physician
In case of eye contact
Flush eyes with water as a precaution

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If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
Absorption into the body leads to the formation of methaemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

Section 5: Fire-fighting measures

5.1 Fire Fighting Media and Instructions:
Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Nitrogen oxides (NOx), Potassium oxides

5.3 Advice for firefighters
Special protective equipment: Wear self-contained breathing apparatus for firefighting if necessary.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and material for containment and cleaning up
Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

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Section 7: Handling and storage

7.1 Precautions for safe handling
Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition. Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Hygroscopic

7.3 Specific end use(s)
No data available

Section 8: Exposure controls/personal protection

8.1 Control parameters
Components with workplace control parameters

8.2 Exposure controls /
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice.
Wash hands before breaks and at the end of workday.

8.3 Personal protective equipment
Eye/face protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection
Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	White
Physical State	Form: Crystalline
Odor	No data available
Odor Threshold	No data available
pH	5,5 - 8 at 50 g/l at 20 °C
Melting Point/Range	Melting point/range: 334 °C - lit.
Boiling Point/Range	No data available
Flash Point	No data available
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Upper/Lower flammability or Explosive Limits	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Relative Density	2,109 g/cm3
Water Solubility	No data available
Partition Coefficient: n-Octanol water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive Properties	No data available
Oxidizing Properties	No data available

9.2 Other safety information

Bulk Density	800 kg/m3

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	No data available
10.5 Incompatible materials	Strong reducing agents, powdered metals, strong acids, organic materials
10.6 Hazardous decomposition products	Other decomposition products – no data available

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Section 11: Toxicological Information

11.1 Toxicological effects:

Acute toxicity
LD50 Oral - rat - 3.750 mg/kg
Skin corrosion/irritation
No data available
Serious eye damage/eye irritation
No data available
Respiratory or skin sensitization
No data available
Germ cell mutagenicity
No data available
Carcinogenicity
IARC: 2A - Group 2A: Probably carcinogenic to humans (Potassium nitrate)

Reproductive toxicity
Reproductive toxicity - rat - Oral
Effects on Fertility: Other measures of fertility
Reproductive toxicity - rat - Oral
Effects on new-born: Behavioural.
Reproductive toxicity - rabbit - Oral
Effects on Fertility: Abortion.
Reproductive toxicity - guinea pig - Oral
Effects on new-born: Stillbirth.
Reproductive toxicity - guinea pig - Oral
Effects on Fertility: Female fertility index (e.g., # females pregnant per # sperm positive females; # females pregnant per # females mated). Effects on Embryo or Foetus: Other effects to embryo.

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
no data available
Aspiration hazard
no data available
Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

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Signs and Symptoms of Exposure
Absorption into the body leads to the formation of methaemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer.

Additional Information
RTECS: TT3700000

Section 12: Ecological Information

12.1 Toxicity

Toxicity to fish	LC50 - Gambusia affinis (Mosquito fish) - 22,5 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 226 mg/l - 72 h

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
Harmful to aquatic life.

Section 13: Disposal considerations

13.1 Waste treatment methods

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Container disposal:
Dispose of as unused product.

Section 14: Transport Information

14.1 UN number

ADR/RID: 1486	IMDG: 1486	IATA: 1486

Potassium Nitrate

14.2 UN proper shipping name

ADR/RID: POTASSIUM NITRATE	IMDG: POTASSIUM NITRATE	IATA: Potassium nitrate

14.3 Transport hazard class(es)

ADR/RID: 5.1	IMDG: 5.1	IATA: 5.1

14.4 Packaging group

ADR/RID: III	IMDG: III	IATA: III

14.5 Environmental hazards

ADR/RID: no	IMDG Marine pollutant: no	IATA: no

14.6 Special precautions for user

No data available

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15: Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions.