



SAFETY DATA SHEET

Potassium Nitrate

1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

Product name : Potassium Nitrate

Chemical name : potassium nitrate

Chemical formula : KNO₃

Use of the substance/preparation : Fertiliser.

Company/undertaking identification

Manufacturer / Supplier Yara Australia Pty Ltd
201 Miller Street, Mezzanine Level
North Sydney
NSW 2060 Australia

Tel: +61 2 9959 4266

Fax: +61 2 9959 4050

Emergency telephone number +61 4 1722 3075

2. Composition/information on ingredients

Substance/preparation : Substance

Ingredient name	CAS number	%	EC number	Classification
potassium nitrate See section 16 for the full text of the R-phrases declared above	7757-79-1	100	231-818-8	O; R8

Occupational exposure limits, if available, are listed in section 8.

3. Hazards identification

The substance is classified as dangerous according to Directive 67/548/EEC and its amendments.

Classification : O; R8

Physical/chemical hazards : The product itself is not combustible but it can support combustion, even in absence of air. On heating it melts and further heating can cause decomposition, releasing toxic fumes containing nitrogen oxides. It has high resistance to detonation. Heating under strong confinement can lead to explosive behaviour.

See section 11 for more detailed information on health effects and symptoms.

4. First-aid measures

Inhalation : Avoid breathing dust. If inhaled, remove to fresh air.

Ingestion : If large quantities of this material are swallowed, call a physician immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Skin Contact : Avoid prolonged or repeated contact with skin. After handling, always wash hands thoroughly with soap and water. Get medical attention if irritation develops.

Eye contact : In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if irritation occurs.

See section 11 for more detailed information on health effects and symptoms.

5. Fire-fighting measures

- Extinguishing media** : Use water only in flooding quantities. Do not release runoff from fire to sewers or waterways.
- Special exposure hazards** : Fire-fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.
Avoid breathing dusts, vapours or fumes from burning materials. In case of inhalation of decomposition products in a fire, symptoms may be delayed.
- Hazardous thermal decomposition products** : These products are: nitrogen oxides (NO, NO₂ etc.).
- Remark** : The product itself is not combustible but it can support combustion, even in absence of air. On heating it melts and further heating can cause decomposition, releasing toxic fumes containing nitrogen oxides. It has high resistance to detonation. Heating under strong confinement can lead to explosive behaviour.

6. Accidental release measures

- Personal precautions** : Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (section 8). Follow all fire-fighting procedures (section 5). Do not touch or walk through spilt material. In case of a large spill: Immediately contact emergency personnel.
- Environmental precautions and clean-up methods** : Avoid contact of spilled material and runoff with soil and water courses.
Use a tool to scoop up solid material and place into an appropriate labelled waste container. Do not mix with sawdust or other combustible material. Avoid creating dusty conditions and prevent wind dispersal. Keep out of waterways. See Section 13 for Waste Disposal Information.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

- Handling** : Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Avoid contamination by any source including metals, dust and organic materials. Prevent moisture pick-up in handling and storage.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalis, reducing agents and combustibles. On farm keep away from hay, grain, diesel, etc.

8. Exposure controls/personal protection

- Occupational exposure limits** : Total inhalable dust - 10 mg/m³
Respirable dust - 5 mg/m³
- Exposure controls**
- Respiratory protection** : Recommended: If dust is generated and ventilation is inadequate, use respirator that will protect against dust/mist. Filter P2 (EN 143)
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. >8 hour(s) (breakthrough time): butyl rubber, neoprene
- Eye protection** : Recommended: Use dust goggles if high dust concentration is generated.
- Skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved.
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

9. Physical and chemical properties

General information

Appearance

- Physical state** : Solid. (Crystalline solid.)
Colour : White.
Odour : Odourless.

Important health, safety and environmental information

- pH** : 6 to 9 (Conc. (% w/w): 10) [Basic.]
Boiling point : Decomposition temperature: 400°C (752°F)
Melting/freezing point : 334°C (633.2°F)
Density (g/cm³) : 0.89 to 1.1 g/cm³
Solubility : Soluble in cold water
Solubility (at 20°C) : 316g/l

10. Stability and reactivity

- Stability** : Stable under recommended storage and handling conditions (see section 7).
Conditions to avoid : The resistance to detonation is decreased by a number of factors such as the presence of contaminants and/or high temperature. Heating under strong confinement (e.g. in tubes or drains) may lead to a violent reaction or explosion.
Materials to avoid : Contamination by substances such as carbonaceous materials; chromates; zinc, copper and their alloys; chlorates, alkalies and reducing agents decrease the resistance to detonation.
Hazardous decomposition products : These products are: nitrogen oxides (NO, NO₂ etc.).

11. Toxicological information

Potential acute health effects

May cause eye and skin irritation.

Adverse health effects are considered unlikely, when the product is used according to directions.

Acute toxicity

Ingredient name	Test	Result	Route	Species
<input checked="" type="checkbox"/> Potassium nitrate	LD50	3750 mg/kg	Oral	Rat
	LD50	1901 mg/kg	Oral	Rabbit

12. Ecological information

Ecotoxicity data

Ingredient name	Species	Period	Result
<input checked="" type="checkbox"/> Potassium nitrate	Poecilia reticulata (LC50)	96 hour(s)	180 mg/l
	Poecilia reticulata (LC50)	96 hour(s)	200 mg/l

- Adverse effects** : Used in excess quantities the product can cause eutrophication in water. The product is not expected to harm the environment when used properly according to directions.





- Remarks** : The product does not show any bioaccumulation phenomena.

13. Disposal considerations

- Methods of disposal** : Empty containers or liners may retain some product residues. Do not empty into drains; dispose of this material and its container in a safe way. Dispose of in accordance with all applicable local and national regulations
- European waste catalogue (EWC)** : 06 03 14 solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
- Hazardous waste** : This material and its container must be disposed of as hazardous waste.
- Packaging waste** : Empty the bag by shaking to remove as much as possible of its contents. Empty bags may be disposed of as non-hazardous material or returned for recycling.

14. Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
ADR/RID Class	UN1486	POTASSIUM NITRATE	5.1	III		Hazard identification number 50 Limited quantity LQ12 CEFIC Tremcard 51S1486
ADNR Class	UN1486	POTASSIUM NITRATE	5.1	III		-
IMDG Class	UN1486	POTASSIUM NITRATE	5.1	III		Emergency schedules (EmS) F-A,S-Q
IATA-DGR Class	UN1486	POTASSIUM NITRATE	5.1	III		Passenger and Cargo Aircraft Quantity limitation: 25 kg Cargo Aircraft Only Quantity limitation: 100 kg Limited Quantities - Passenger Aircraft Quantity limitation: 10 kg

15. Regulatory information

EU regulations

Hazard symbol/symbols :



Oxidising

Risk phrases : R8- Contact with combustible material may cause fire.

Safety phrases : S17- Keep away from combustible material.
S41- In case of fire and/or explosion do not breathe fumes.

Product use : Industrial applications.

Classification and labelling have been performed according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and the intended use.

16. Other information

Full text of R-phrases referred to in sections 2 and 3 - Europe : R8- Contact with combustible material may cause fire.

Full text of classifications referred to in sections 2 and 3 - Europe : O - Oxidising

History

Date of issue : 2006-06-13.

Date of previous issue : 2005-09-02.

Version : 1.01

▣ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information provided in this Safety Data Sheet is accurate as at the date of its issue. The information it contains is being given for safety guidance purposes and relates only to the specific material and uses described in it. This information does not necessarily apply to that material when combined with other material (s) or when used otherwise than as described herein. Final determination of the suitability of any material is the sole responsibility of the user. All materials may represent unknown hazards and should be used with caution. Yara International ASA disclaims any liability for loss or damage resulting from the use of any data, information or recommendations set out in this Safety Data Sheet.

Version 1.01	Page: 5/5
---------------------	-----------