



SAFETY DATA SHEET

Unika™ Kali

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

Identification of the substance or mixture

Product name : Unika™ Kali
 Chemical name : potassium nitrate
 Chemical formula : KNO₃
 Use of the substance/mixture : 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

e-mail address of person responsible for this SDS : yaraasiapacific@yara.com

Emergency telephone number : +61 4 1722 3075 (24h)

2. Hazards identification

The product 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.

3. Composition/information on ingredients

Substance/preparation : Substance:

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

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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

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.

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4. First-aid measures

- Eye contact** : In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if irritation occurs.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

5. Fire-fighting measures

- Extinguishing media** : Use water only in flooding quantities to fight the fire. Do NOT use chemical extinguisher or foam or attempt to smother the fire with steam or sand.
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.)
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
- 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 and ammonia. It has high resistance to detonation. Heating under strong confinement can lead to explosive behaviour.

6. Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. 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.
- Environmental precautions and clean-up methods** : Avoid contact of spilt material and runoff with soil and surface waterways.
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.
Separate from reducing agents and combustible materials. Keep away from acids or bases. On farm keep away from hay, grain, diesel, etc.
- Packaging materials**
- Recommended** : Use original container.

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** : >8 hours (breakthrough time): butyl rubber, neoprene.
- Eye protection** : Recommended: Use dust goggles if high dust concentration is generated.

8. Exposure controls/personal protection

- 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. [Prills]

Colour : White.

Odour : Odourless.

Important health, safety and environmental information

Boiling point : Decomposition temperature: 399,85°C

Melting/freezing point : 333,8°C

Density (g/cm³) : 0,89 to 1,1 g/cm³

Solubility : Soluble in the following materials: cold water

Solubility (at 20°C) : 316 g/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, chlorides, 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.

Product/ingredient name	Result	Species	Dose	Exposure	References
potassium nitrate	LD50 Oral	Rat	3750 mg/kg	-	potassium nitrate
	LD50 Oral	Rat	3540 mg/kg	-	
	TDLo Oral	Rat	10 mg/kg	-	

Potential chronic health effects

Chronic effects : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Inhalation : No specific data.

Ingestion : No specific data.

Skin : No specific data.

Eyes : No specific data.

12. Ecological information

Environmental effects : Used in excess quantities the product can cause eutrophication in water.

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure	References
potassium nitrate	Acute LC50	490 mg/L	Daphnia -	48 hours	J.Water Pollut.Control Fed.
	Fresh water		Daphnia magna		37(9):1308-1316
	Acute LC50	22500 ug/L	Fish - Gambusia	96 hours	Sewage Ind.Wastes 29(6):695-711
	Fresh water		affinis - Adult		

Conclusion/Summary : Most inorganic compounds are not biodegradable. The product does not show any bioaccumulation phenomena.

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Methods of disposal : Material free from contamination can be used for its original purpose. 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) : 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 : plastic packaging
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. In tests, bags emptied in this manner show only traces of residues and are considered non-hazardous.

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
ADN/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

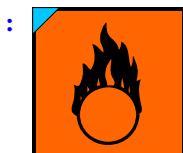
The product in prilled form is not subject to the provisions for the transport of dangerous goods (as belonging to class 5.1), based on results of the test O.1 United Nations Manual of Tests and Criteria (ADR 2.2.51.1.5/IMDG chapter 3.3 provision 223).

It is recommended to mention in the Transport documents "Product not belonging to Class 5,1" when the prilled product is transported as non dangerous (ADR 5.4.1.5).

15. Regulatory information

EU regulations

Hazard symbol or symbols



Oxidising

Risk phrases

: May intensify fire

Safety phrases

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

Contains EINECS number : potassium nitrate

231-818-8

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.

Europe inventory

: This material is listed or exempted.

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

References

: Regulation (EC) No 1272/2008 Annex VI
National Institute for Occupational Safety and Health, U.S. Dept. of Health, Education, and Welfare, Reports and Memoranda
Registry of Toxic Effects of Chemical Substances
Atrion International Inc. 4777 Levy Street, St Laurent, Quebec HAR 2P9, Canada

History

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Version : 1

Prepared by : Yara Product Classification and Regulations

 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.

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