



# SAFETY DATA SHEET

## Kristalon Special

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

#### Identification of the substance or preparation

**Product name** : Kristalon Special  
**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** : Preparation

Ingredient name	CAS number	%	EC number	Classification
Potassium nitrate	7757-79-1	0 - 40	231-818-8	O; R8
Ammonium nitrate	6484-52-2	0 - 40	229-347-8	O; R8
acetic acid, (ethylenedinitrilo)tetra-, sodium salt, iron complex	15708-41-5	5.46	239-802-2	Not classified.
Manganese compounds	15375-84-5	3.108	239-407-5	Not classified.
boric acid	10043-35-3	1.464	233-139-2	Not classified.
<b>See section 16 for the full text of the R-phrases declared above</b>				

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

Contains some or all of the following in addition to ammonium nitrate and/or potassium nitrate:- mono and di ammonium phosphate, potassium sulphate, potassium phosphate, ammonium sulphate, urea, secondary nutrients and micro nutrients.  
 Total: 0% < ammonium nitrate + potassium nitrate < 40%

### 3. Hazards identification

The preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

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 potentially dangerous quantities of this material have been 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 use chemical extinguisher or foam or attempt to smother the fire with steam or sand.
- Special exposure hazards** : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
- Hazardous thermal decomposition products** : These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub> etc.), sulphur oxides (SO<sub>2</sub>, SO<sub>3</sub>, etc.), halogenated compounds, phosphates, hydrogen chloride. Some metallic oxides.
- Remark Explosibility** : 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.

## 6. Accidental release measures

- Personal precautions** : If released in large quantities: 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 with soil and prevent runoff entering surface waterways.
- Use a tool to scoop up solid or absorbed material and place into appropriate labelled waste container. Avoid all possible sources of ignition (spark or flame). Avoid creating dusty conditions and prevent wind dispersal.

**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.
- Storage** : Store and use away from heat, sparks, open flame, or any other ignition source. Avoid contact with combustible materials. Prevent moisture pick-up in handling and storage.

## 8. Exposure controls/personal protection

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
Ammonium nitrate	<b>ACGIH TLV (United States, 2000).</b> TWA: 10 mg/m <sup>3</sup> 15 minute(s).
acetic acid, (ethylenedinitrilo)tetra-, sodium salt, iron complex	<b>ACGIH TLV (United States, 1/2005).</b> TWA: 1 mg/m <sup>3</sup> 8 hour(s). Form: All forms
Manganese compounds	<b>ACGIH TLV (United States, 1/2005). Notes: Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58(124) :36338-33351, June 30, 1993, for revised OSHA PEL. See Notice of Intended changes.</b> TWA: 0,2 mg/m <sup>3</sup> 8 hour(s). Form: All forms
boric acid	<b>ACGIH TLV (United States, 1/2005). Notes: Inhalable fraction. See Appendix C, paragraph A. Inhalable Particulate Mass TLVs (IPM-TLVs) for those materials that are hazardous when deposited anywhere in the respiratory tract. ACGIH 2005 Adoption Refers to Appendix A -- Carcinogens.</b> STEL: 6 mg/m <sup>3</sup> 15 minute(s). Form: All forms TWA: 2 mg/m <sup>3</sup> 8 hour(s). Form: All forms

### Exposure controls

- Respiratory protection** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.  
Recommended: If dust is generated and ventilation is inadequate, use respirator that will protect against dust/mist.

## 8. Exposure controls/personal protection

- 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.: PVC , butyl rubber , nitrile rubber , natural rubber (latex)
- 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 and should be approved by a specialist before handling this product.
- 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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. Physical and chemical properties

### General information

#### Appearance

- Physical state** : Solid. (Crystalline solid.)

### Important health, safety and environmental information

- pH** : 3 to 6 (Conc. (% w/w): 1) [Acidic.]
- Melting/freezing point** : >170°C (338°F) (Ammonium nitrate)
- Density (g/cm<sup>3</sup>)** : 0.8 to 1.3 g/cm<sup>3</sup>
- Solubility** : Easily soluble in cold water, hot water

## 10. Stability and reactivity

- Stability** : Stable under recommended storage and handling conditions (see section 7).
- Materials to avoid** : Reactive or incompatible with the following materials: reducing materials, combustible materials, organic materials and acids.
- Hazardous decomposition products** : These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub> etc.), sulphur oxides (SO<sub>2</sub>, SO<sub>3</sub>, etc.), halogenated compounds, phosphates, hydrogen chloride. Some metallic oxides.

## 11. Toxicological information

### Potential acute health effects

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

### Acute toxicity

Ingredient name	Test	Result	Route	Species
Potassium nitrate	LD50	3750 mg/kg	Oral	Rat
	LD50	1901 mg/kg	Oral	Rabbit
Ammonium nitrate boric acid	LD50	2217 mg/kg	Oral	Rat
	LD50	2660 mg/kg	Oral	Rat
	LD50	3450 mg/kg	Oral	Mouse
	LDLo	200 mg/kg	Oral	woman
	LDLo	429 mg/kg	Oral	man
	LDLo	934 mg/kg	Oral	infant
	LDLo	1200 mg/kg	Dermal	infant
	LDLo	1500 mg/kg	Dermal	child
LDLo	2430 mg/kg	Dermal	man	

### Over-exposure signs/symptoms

- Target organs** : Contains material which causes damage to the following organs: blood, kidneys, upper respiratory tract, central nervous system (CNS).

## 12. Ecological information

### Ecotoxicity data

Ingredient name	Species	Period	Result
Potassium nitrate	Poecilia reticulata (LC50)	96 hour(s)	180 mg/l
	Poecilia reticulata (LC50)	96 hour(s)	200 mg/l
acetic acid, (ethylenedinitrilo)tetra-, sodium salt, iron complex	Daphnia magna (LC50)	96 hour(s)	13 mg/l
	Daphnia magna (LC50)	96 hour(s)	32 mg/l
	Pimephales promelas (LC50)	96 hour(s)	100 mg/l
	Pimephales promelas (LC50)	96 hour(s)	>100 mg/l
boric acid	Daphnia magna (EC50)	48 hour(s)	133 mg/l
	Daphnia magna (EC50)	48 hour(s)	226 mg/l
	Daphnia magna (EC50)	48 hour(s)	777 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	>800 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	>1021 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	>1100 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.

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC..

## 14. Transport information

Not regulated.

Not classified as hazardous material according to UN Orange Book and international transport codes e.g. ADR (road), RID (rail), ADN (inland waterways) and IMDG (sea).

## 15. Regulatory information

### EU regulations

**Risk phrases** : This product is not classified according to EU legislation.

**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.

**Additional warning phrases** : Safety data sheet available for professional user on request.

## 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** : 2005-09-05.

**Date of previous issue** : No previous validation.

**Version** : 1

 Indicates information that has changed from previously issued version.

## **16. Other information**

[Notice to reader](#)

*To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*

*Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*

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