



# MATERIAL SAFETY DATA SHEET

## CALCIUM NITRATE + BORON FERTILISER

Date of Issue: January 01, 2011

### 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

**Product name:** **Calcium Nitrate + Boron Fertiliser**  
**Recommended use:** Calcium Nitrate Fertiliser  
**Supplier:** Campbells Fertilisers Australasia  
**Address:** 18 Raymond Road, Laverton North, Victoria, 3026  
**Telephone:** (03) 9931 2211  
**Facsimile:** (03) 9931 2201  
**Website:** [www.campbellsfert.com.au](http://www.campbellsfert.com.au)  
**Contact:**  
**Emergency Telephone Number:** (03) 9931 2211 (business hours only 8.30 to 5.00)

### 2. HAZARDS IDENTIFICATION

#### NON-HAZARDOUS SUBSTANCE - NON-DANGEROUS GOOD

**Hazard designation:** Based on available information, not classified as hazardous according to the criteria of NOHSC.  
**Risk phrases:** Not applicable.  
**Safety phrases:** Not applicable.  
**ADG classification:** This product is not classified as a Dangerous Good under the Australian Code for the Transport of Dangerous Goods by Road and Rail.  
**SUSDP classification:** Exempt

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Concentration (%):
Non-hazardous ingredients		

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### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.
<b>Skin contact:</b>	Immediately flush contaminated skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before re-use. Thoroughly clean shoes before re-use. Seek medical attention if symptoms occur.
<b>Eye contact:</b>	Immediately flush/irrigate eyes with copious quantities of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Seek medical attention immediately.
<b>Ingestion:</b>	Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Seek medical attention. For ingestion of solubor, kidney function must be maintained. For massive acute ingestion or renal failure, haemodialysis should be considered.
<b>First Aid Facilities:</b>	Ensure eye washing and quick-drench facilities are available and maintained.

### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Use any means for extinguishing surrounding fire.
<b>Hazards from combustion products:</b>	Not combustible, but substance is a strong oxidiser and its heat of reaction with reducing agents or combustibles may cause ignition.
<b>Precautions for fire fighters:</b>	Wear full protective clothing and approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Water spray may be used to keep fire exposed containers cool.

### 6. ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in section 8.

Spills: Sweep up and containerise for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.



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### 7. HANDLING AND STORAGE

**Handling:** Keep in tightly closed container. Protect against physical damage and moisture. Containers of this material may be hazardous when empty since they retain product residues; observe all warnings and precautions listed for the product.

**Storage:** Store in a cool, dry, ventilated area and away from any source of heat or ignition. Avoid storage on wet floors. Separate from incompatibles, combustibles, organic or other readily oxidisable materials.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure standards:** None established.

**Engineering controls:** A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

**Personal Protective Equipment:**

*Eyes:*  
Chemical safety goggles.

*Gloves:*  
Wear protective gloves and clean body-covering clothing.

*Respiratory:*  
Use a half-face dust/mist respirator where exposure to the dust or mist is apparent. For emergencies or where exposure levels are not known, use a full-face positive pressure, air supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

*Other:*  
None

**Other Use Precautions:** Wash contaminated clothing and other protective equipment before storage or re-use.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** White granules.

**Odour:** Odourless

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<b>Vapour pressure:</b>	Not available
<b>Vapour density:</b>	Not applicable
<b>Boiling point:</b>	If some water present ~ 140 °C, but will differ depending on amount of water. Could decompose before boiling.
<b>Melting point:</b>	45 °C
<b>Solubility:</b>	76 % (w/w)
<b>Density:</b>	1000 to 1200 kg/m <sup>3</sup>
<b>pH:</b>	5 to 7
<b>Molecular Weight:</b>	Not available
<b>Flash Point:</b>	Not available
<b>Flammability (explosive) limits:</b>	Not flammable
<b>Auto-ignition temperature:</b>	Not available
<b>Octanol/water partition coefficient:</b>	Not available

### 10. STABILITY AND REACTIVITY

<b>Chemical stability:</b>	Unstable. Exposure to heat may result in build-up of dangerous pressures. Other calcium nitrate compounds are strong oxidisers and reacts violently upon contact with many organic substances, particularly textile and paper.
<b>Hazardous polymerisation:</b>	Will not occur
<b>Conditions to avoid:</b>	Heat, flame, ignition sources, shock and incompatibilities
<b>Incompatible materials:</b>	Combustible materials, organic materials, powdered metals, ammonia, hydrazine, reducing agents.
<b>Hazardous decomposition products:</b>	Toxic oxides of nitrogen are produced when calcium nitrate is strongly heated.

### 11. TOXICOLOGICAL INFORMATION

#### POTENTIAL HEALTH EFFECTS

##### Information on Product:

**Inhalation:** Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

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- Skin contact:** Repeated or prolonged skin contact may cause irritation. Symptoms include redness, itching and pain. Solubor is poorly absorbed through intact skin.
- Eye contact:** Dust may cause irritation, redness and pain.
- Ingestion:** Calcium nitrate causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhoea. Solubor causes gastrointestinal symptoms. Solubor could cause reproductive and developmental effects.
- Other:** No information available.
- Chronic:** No information available

**Information on Components:** Kidney function must be maintained in case of solubor ingestion.

### Acute:

- Oral toxicity:** Calcium nitrate: Oral rat LD<sub>50</sub> = 3900 mg/kg  
Solubor: Oral rat LD<sub>50</sub> = 2500 mg/kg
- Dermal toxicity:** Solubor: rabbits > 2000 mg/kg
- Inhalation toxicity:** Solubor: rats > 2 mg/L
- Skin irritation:** Not available
- Eye irritation:** Calcium nitrate: rabbit 500 mg/24 hr severe
- Sensitisation:** Not available

Solubor not listed as carcinogen. No mutagenic activity observed. Developmental effects on foetus observed. Effects on fertility observed.

## 12. ECOLOGICAL INFORMATION

- Environmental fate:** Calcium nitrate is very soluble in water. The nitrate ion is the predominant form of plant nutrition. It follows the natural nitrification/denitrification cycle to give nitrogen.
- Mobility:** No data available
- Persistence / degradation:** No data available
- Ecotoxicological Information:** Calcium nitrate: fish (96 hr) LC<sub>50</sub> > 100 mg/L  
Solubor: freshwater rainbow trout (embryo larval stage) (24 and 32 day) LC<sub>50</sub> = 88 mg B/L and 54 mg B/L



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### 13. DISPOSAL CONSIDERATIONS

**Disposal of Waste Method:**

Depending on degree or nature of contamination, dispose of by use as a fertiliser on farm or to an authorised waste facility.

**Contaminated Packaging:**

Empty containers must be handled according to local regulations.

### 14. TRANSPORT INFORMATION

**UN number:** Not applicable

**Proper shipping name:** Not applicable

**Class and Subsidiary Risk:** Not classified as Dangerous Goods for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

**Packing Group:** Not applicable

**EPG:** Not applicable

**Hazchem code:** Not applicable

### 15. REGULATORY INFORMATION

Based on available information, not classified as hazardous according to criteria of Worksafe Australia.

Poisons Schedule (Aust)/Toxic Substance (NZ): Exempt

### 16. OTHER INFORMATION

**Trademark information:**

**Preparation information:** Prepared by Campbells Fertilisers Australasia

**Data sources:**

END OF MSDS