



**Part 2** - H302 Harmful if swallowed.  
 H318 Causes serious eye damage.

**Precautionary Statements:**

**Part 1** – None specified

**Part 2**

Prevention	P264 Wash exposed skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear eye protection/face protection.
Response	P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 Rinse mouth. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician.
Disposal	P501 Dispose of contents/container in accordance with local / regional / national /international regulations.

**National Transport Commission (Australia)**

**Dangerous Goods Classification**

Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Chemical Entity</u>	<u>CAS Number</u>	<u>Proportion</u>
<b>Part 1 - Fertiliser</b>		
Proprietary formulation of various non hazardous ingredients in soluble form (Major Ingredients are Urea (CAS NO 57-13-6), Potassium Nitrate (CAS NO 7757-79-1 and Mono Potassium Phosphate (CAS NO 7778-77-0)		100%
<b>Part 2 – Calcium Nitrate</b>	<b>CAS No 13477-34-4</b>	<b>100%</b>

**4. FIRST AID MEASURES – Part 1 – Fertiliser mix**

If poisoning occurs, please contact immediately Poisons Information Centre (Australia) on 131126

<b>Ingestion:</b>	Rinse mouth with water. If swallowed, do not induce vomiting. Give a glass of water to drink, but never give anything by mouth to unconscious person. If vomiting occurs give additional water. Seek medical advice immediately.
<b>Eye:</b>	Flush with flowing water for 10-15 minutes. If irritation persists, seek immediate medical advice.
<b>Skin:</b>	Remove contaminated clothing. Wash affected part with soap and clean water. Any symptoms

	such as swelling, redness, blister or irritation occurs, seek immediate medical attention.
<b>Inhaled:</b>	Remove victim to fresh air. Remove contaminated clothing and make victim comfortable position. Seek medical help if victim still uncomfortable and develop any symptoms.
<b>Aid Facilities:</b>	Poisons Information Centres in each State capital city may provide additional assistance (Ph 131126).
<b>Advice to doctor:</b>	No special advice, treat symptomatically.

#### 4. FIRST AID MEASURES – Part 2 – Calcium Nitrate

##### **Eye Contact**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

##### **Skin Contact**

Remove contaminated clothing. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if symptoms occur.

##### **Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and Get medical attention

##### **Ingestion**

Rinse mouth with water. If swallowed, do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.

#### 5. FIRE FIGHTING MEASURES – PART 1 – Fertiliser mix

**Hazchem code:** Not applicable

##### **Extinguishing media:**

Material is non-combustible, however if caught in fire use Water spray/fog, foam, dry agent (carbon dioxide/dry chemical powder)

##### **Special protective equipment for firefighters:**

On decomposition, may emit toxic fumes, so fire fighters to wear appropriate clothing and self contained breathing apparatus.

#### 5. FIRE FIGHTING MEASURES – PART 2 – Calcium Nitrate

##### **General Measures**

Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT move cargo if cargo has been exposed to heat.

**Flammability Conditions** Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

**Extinguishing Media** Use any means suitable for extinguishing surrounding fire. Water spray may be used to keep fire exposed containers cool.

**Fire and Explosion Hazard** Can cause explosions in contact with combustible dusts or vapors; occasionally explosive by shock or friction. Sensitive to mechanical impact. Exposure to heat may result in build-up of dangerous pressures.

**Hazardous Products of Combustion** No Data Available

**Special Fire Fighting Instructions**

HAZCHEM: 1Z

Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment. Dam fire control water for later disposal.

**Personal Protective Equipment**

Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit.

**Flash Point** No Data Available

**Lower Explosion Limit** No Data Available

**Upper Explosion Limit** No Data Available

**Auto Ignition Temperature** No Data Available

**Hazchem Code** 1Z

## 6. ACCIDENTAL RELEASE MEASURES – FOR BOTH PART 1 & Part 2

**Small spills:** Ensure to wear appropriate protective gear (such as gloves/goggles) as appropriate and sweep to collect in to a rag or paper towel and dispose as general waste. Avoid contact with eye/skin

**Large spills:** Ensure to wear appropriate protective gear and sweep and collect in to properly labelled containers. Avoid material entering in to drainage or waterways. Advice or contact local council or environmental authority as appropriate.

## 7. HANDLING AND STORAGE - FOR BOTH PART 1 & Part 2

- Avoid Skin, eye contact and inhalation of dust.
- Store in a dry, cool and ventilated place away from Children, pets and exposure to direct sunlight. Also store away from any incompatible materials described in section 10 of this safety data sheet.
- When not in use and after use, ensure to keep the container/bag sealed securely.
- If any spillage, follow appropriate action as described in section 6 of this data sheet.

Store in original packaging as approved by manufacturer

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION- FOR BOTH PART 1 & PART 2

**Engineering measures:**

Proper Ventillation in place, particualry while handling larger volumes in factory settings and use appropriate protective cloth

**Control of exposition limit:**

Respiratory protection: Keep ventilated and use mask during handling large volumes

Hand protection: Rubber or plastic gloves

Eye protection: Safety glasses

Skin protection: Use adequate clothing and overalls

**Personl Protection in Manufacturing/Packing area:**

Wear overalls, safety glasses and impermiable gloves. Avoid generating dust. If dust exists wear appropriate dust mask meeting requirements of AS/NZS 1715 Standards.

Always wash hands after handling and before eating, smoking or drinking. Wash contaminated clothing before storing or reuse

**Hygienic and personal protection practices while handling the product**

Wear safety glasses and impermeable gloves and dust mask if required.

Keep the material/product away from food and drink, animal feed.

When using, do not eat, drink or smoke

Wash hands or affected area thoroughly prior to eating, drinking or smoking

Avoid contact with skin, eye and inhalation of any dust from the product.

**9. PHYSICAL AND CHEMICAL PROPERTIES – Part 1- Fertiliser**

<b>Form:</b>	Crystalline powder
<b>Colour:</b>	Pink
<b>Odour:</b>	None
<b>Melting Point:</b>	Not applicable
<b>Boiling Point:</b>	Not applicable
<b>Vapour Press kPa 025C:</b>	Nil
<b>Specific Gravity:</b>	Not determined
<b>Flashpoint (C):</b>	Non flammable
<b>Flammability Limits:</b>	Non flammable
<b>Solubility in water:</b>	Completely soluble in water

**9. PHYSICAL AND CHEMICAL PROPERTIES – Part 2- Calcium Nitrate**

<b>Form:</b>	Crystalline powder/Prills
<b>Colour:</b>	White
<b>Odour:</b>	None
<b>Melting Point:</b>	45oC
<b>Boiling Point:</b>	Not applicable
<b>Vapour Press kPa 025C:</b>	Nil
<b>Specific Gravity:</b>	Not determined
<b>Flashpoint (C):</b>	Non flammable
<b>Flammability Limits:</b>	Non flammable
<b>Solubility in water:</b>	Completely soluble in water

**10. STABILITY AND REACTIVITY- FOR BOTH PART 1 & Part 2**

<b>General Information</b>	Product is a non-flammable solid.
<b>Chemical Stability</b>	Product is stable under normal conditions of use, storage and temperature.
<b>Conditions to Avoid</b>	Avoid excessive heat, generating dust, direct sunlight, moisture and high temperatures.
<b>Materials to Avoid</b>	Incompatible with strong oxidising agents, bases, mineral acids and combustibles
<b>Hazardous Decomposition Products</b>	
Main combustion gas: sulfur oxides (SOx), metal oxides.	
<b>Hazardous Polymerisation</b>	
Hazardous Polymerisation has not been reported.	

## 11. TOXICOLOGICAL INFORMATION – Part 1 – Fertiliser mix

In general when the product is used and handled safely and as per directions on the label and per safety data sheet instructions, no adverse effects are expected. However in case of mishandling or overexposure to the product, may result in symptoms of acute and Chronic effects.

**Information on Toxicity:** No published data or information available, however materials used in this product are considered non- hazardous.

### ACUTE EFFECTS

<b>Ingestion/Swallowed:</b>	May cause gastric irritation and result in nausea & vomiting, however ingestion of large amounts may be harmful and dangerous.
<b>Eye:</b>	Irritant on contact
<b>Skin:</b>	Prolonged exposure may cause irritation and dry skin, particularly to sensitive skins
<b>Inhaled:</b>	Non hazardous, but dusts may be irritant to the respiratory track or mucous membrane.

### Chronic Toxicity:

<b>Mutagenicity:</b>	No data/information available, but material considered non hazardous
<b>Carcinogenicity</b>	This material considered non hazardous
<b>Specific Organ Toxicity</b>	No information available but material considered non hazardous.

## 11. TOXICOLOGICAL INFORMATION – Part 2 – Calcium Nitrate

### **General Information**

Oral rat LD50: 3900 mg/kg. Irritation eye rabbit 500mg/24H severe.

<b>Eye Irritant</b>	Causes irritation, redness, and pain.
<b>Ingestion</b>	Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.
<b>Inhalation</b>	Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.
<b>Skin Irritant</b>	Causes irritation to skin. Symptoms include redness, itching, and pain.
<b>Carcinogen Category</b>	No Data Available

## 12. ECOLOGICAL INFORMATION - FOR BOTH PART 1 & Part 2

<b>Ecotoxicity</b>	No data available
<b>Mobility</b>	Completely soluble in water.

<b>Environmental Fate</b>	Do NOT allow excessive product to reach waterways, drains and sewers.
<b>Bioaccumulation Potential</b>	No information available on bioaccumulation for this product.
<b>Environmental Impact</b>	No Data Available

### 13. DISPOSABLE CONSIDERATIONS - FOR BOTH PART 1 & Part 2

General Information Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

### 14. TRANSPORT INFORMATION - FOR BOTH PART 1

#### **National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

#### **Dangerous Goods Classification**

NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

#### **Marine Transport**

Not classified as dangerous according to the criteria of International Marine Dangerous Goods (IMDG) for transport by sea.

#### **Air Transport**

Not classified as dangerous according to the criteria of International Air Transport Association (IATA) Dangerous Goods regulation for transport by air.

### 14. TRANSPORT INFORMATION - FOR BOTH PART 2 – Calcium Nitrate

Land Transport (Australia)- ADG

<b>Proper Shipping Name</b>	CALCIUM NITRATE
<b>Class</b>	5.1 Oxidising Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	31 Oxidizing Substances
<b>UN Number</b>	1454
<b>Hazchem</b>	1Z
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

### 15. REGULATORY INFORMATION

Constituents or materials used in this product are covered by Australian Inventory of Chemical Substances (AICS)

Poisons Schedule (Aust)	Not scheduled
-------------------------	---------------

## 16. OTHER INFORMATION

The MSDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

### **STATEMENT OF DISCLAIMER:**

This Material Safety Data Sheet has been developed according to WHS Code of Practice Preparation of Safety Data Sheets for Hazardous Chemicals Guidelines and written in accordance with GHS format. All information is as accurate and up-to-date as possible. Since Manutec Pty Ltd cannot anticipate or control the conditions under which this information may be used, each user should review the information in the specific context of the intended application. Manutec Pty Ltd will not be responsible for damages of any nature resulting from use of or reliance upon this information. No expressed or implied warranties are given other than those implied mandatorily by Federal, State or Territory Legislation.