

# N.Z. CROP CARE LTD.

## Science our Future

### Material Safety Data Sheet - MSDS

#### Section 1: Chemical Product and Company Identification

**Product Name:** Calcium Nitrate Prill (Granular)  
*also known as Calcium Nitrate Tetrahydrate  
Calcium Nitrate 4-hydrate*

**Chemical Formula:**  $\text{Ca}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O}$

**Contact Information:**

NZ Crop Care Ltd  
164 Manuaku Rd  
Pukekohe 2340  
New Zealand

NZ Sales: **09 238-0449**  
International Sales: **0064-9-2380449**

**ERMA NZ Approval Code:** HSR003543

**HSNO Hazard Classifications:**  
5.1.1C – 6.1D – 6.3B – 6.4A

**NATIONAL POISONS CENTRE:**  
0800 764-766

**CHEMCALL:** 0800 243-622

#### Section 2: Composition and Information on Ingredients

**COMPOSITION:**

Name	C.A.S No	% by Weight
Calcium nitrate prill	13477-34-4	100

**Toxicological Data on Ingredients:** Oral rat LD50: 3900 mg/kg. Irritation eye rabbit 500mg/24H severe.

#### Section 3: Hazards Identification

**SAF-T-DATA<sup>(tm)</sup> Ratings (Provided here for your convenience):**

Health Rating: 2 - Moderate

Flammability Rating: 0 - None

Reactivity Rating: 3 - Severe (Oxidizer)

Contact Rating: 3 - Severe

Lab Protective Equip: Goggles & shield; lab coat & apron; vent hood; proper gloves.

Storage Color Code: Yellow (Reactive)

**Potential Health Effects:**

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

**INGESTION:** Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

**SKIN CONTACT:** Causes irritation to skin. Symptoms include redness, itching, and pain.

**EYE CONTACT:** Causes irritation, redness, and pain.

**CHRONIC EXPOSURE:** No information found.

**AGGRAVATION OF PRE-EXISTING CONDITIONS:** No information found.

## Section 4: First Aid Measures

**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:** 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. Get medical attention.

**Ingestion:** Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

## Section 5: Fire and Explosion Data

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

**Explosion:** Can cause explosions in contact with combustible dusts or vapors; occasionally explosive by shock or friction. Sensitive to mechanical impact.

**Fire Extinguishing Media:** Use any means suitable for extinguishing surrounding fire.

**Special Information:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Water spray may be used to keep fire exposed containers cool.

## Section 6: Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Small amounts of residue may be flushed to sewer with plenty of water.

## Section 7: Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage and moisture. Isolate from any source of heat or ignition. Avoid storage on wood floors. Separate from incompatibles, combustibles, organic or other readily oxidizable materials. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

## Section 8: Exposure Controls/Personal Protection

**Airborne Exposure Limits:** None established.

**Ventilation System:** 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. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):** For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the 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.

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

**Eye Protection:** Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

## Section 9: Physical and Chemical Properties

**Appearance:** White crystals.

**Odor:** Odorless.

**Solubility:** 121g in 100g of water.

**Density:** 2.36

**pH:** No information found.

**% Volatiles by volume @ 21C (70F):** 0

**Boiling Point:** No information found.

**Melting Point:** 45C (113F)

**Vapor Density (Air=1):** No information found.

**Vapor Pressure (mm Hg):** No information found.

**Evaporation Rate (BuAc=1):** No information found.

## Section 10: Stability and Reactivity Data

**Stability:** Unstable. Exposure to heat may result in build-up of dangerous pressures. A strong oxidizer reacts violently upon contact with many organic substances, particularly textile and paper.

**Hazardous Decomposition Products:** Oxides of nitrogen.

**Hazardous Polymerization:** Will not occur.

**Incompatibilities:** Combustible materials, organic materials, powdered metals, ammonia, hydrazine, reducing agents.

**Conditions to Avoid:** Heat, flame, ignition sources, shock and incompatibles.

## Section 11: Toxicological Information

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

**Cancer Lists / NTP Carcinogen:** Known: No      Anticipated: No      IARC Category: None

## Section 12: Ecological Information

**Environmental Fate:** No information found.

**Environmental Toxicity:** The LC50/96-hour values for fish are over 100 mg/l.

### Section 13: Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

### Section 14: Transport Information

**DOT Classification:** CLASS 5.1: Oxidizing material.

**Identification:** Calcium Nitrate Prill : UN Number: 1454 / Pack Group: III

**Information reported for product/size:** 100KG

### Section 15: Other Regulatory Information

**Poison Schedule:** None allocated.

**WHMIS:** This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

### Section 16: Other Information

**NFPA Ratings:**

**Health:** 1

**Flammability:** 0

**Reactivity:** 3

**Other:** Oxidizer

**Label Hazard Warning:** Danger! strong oxidizer. Contact with other material may cause fire. Causes irritation to skin, eyes and respiratory tract. Harmful if swallowed or inhaled.

**Label Precautions:** Keep from contact with clothing and other combustible materials. Do not store near combustible materials. Avoid contact with eyes, skin and clothing. Store in a tightly closed container. Wash thoroughly after handling. Avoid breathing dust. Use only with adequate ventilation.

**Label First Aid:** If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. In all cases, get medical attention.

**Product Use:** Laboratory Reagent.

**Created:** 20/05/2008

**Last Updated:** 20/05/2008

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