



# MATERIAL SAFETY DATA SHEET

## SECTION 1 – PRODUCT IDENTIFICATION AND USE

<b>PRODUCT IDENTIFIER:</b>	Calcium Nitrate		
<b>PRODUCT USE:</b>	Fertilizer		
<b>SUPPLIER'S NAME:</b>	Agrisol Manufacturing Inc		
<b>ADDRESS</b>	220 – 7565, 132 Street Surrey, BC, V3Z 1K7, Canada	<b>ADDRESS</b>	Same as manufacturer
<b>IN CASE OF EMERGENCY:</b> 1(866) 246-3378			

## SECTION 2 – HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	Conc. in %	CAS #	LD <sub>50</sub> OF INGREDIENT (SPECIFY SPECIES & ROUTE)
Calcium Nitrate	100	10124-37-5	LD <sub>50</sub> (oral rat) 2000 mg/Kg

## SECTION 3 – PHYSICAL DATA

<b>PHYSICAL STATE:</b>	Solid	<b>ODOUR &amp; APPEARANCE</b>	Odourless white to off-white powder or crystals.
<b>ODOUR THRESHOLD (ppm):</b>	NAP	<b>VAPOUR PRESSURE (mmHg): @20oC</b>	NAP
<b>VAPOUR DENSITY (air=1):</b>	NAP	<b>RELATIVE DENSITY @20oC</b>	1.12
<b>pH:</b>	6.0 (5% Aqueous Solution)	<b>EVAPORATION RATE:</b>	NAP
<b>MELTING/FREEZING POINT (°C)</b>	116	<b>SOLUBILITY (in water):</b>	76% by weight. Hygroscopic.
<b>BOILING RANGE</b>	Decomposes above 116 °C.	<b>BULK DENSITY:</b>	1000 – 1200 kg/m <sup>3</sup> (62.42-74.91 lb/cf <sup>3</sup> )

## SECTION 4 – FIRE AND EXPLOSION DATA

<b>FLAMMABLE:</b>	Product is not combustible.		
<b>IF YES, UNDER WHAT CONDITIONS?</b>	Product is not combustible; however, contact with combustible material may cause fire.		
<b>MEANS OF EXTINCTION:</b>	Use media appropriate for surrounding fire and/or materials.		
<b>FLASHPOINT (°C) &amp; METHOD:</b>	NAV	<b>AUTOIGNITION TEMPERATURE (°C)</b>	NAP
<b>LOWER FLAMMABLE LIMIT (% by volume):</b>	NAP	<b>UPPER FLAMMABLE LIMIT (% by volume):</b>	NAP
<b>SENSITIVITY TO IMPACT:</b>	NAV-Not expected to be sensitive to mechanical impact.	<b>SENSITIVITY TO STATIC DISCHARGE:</b>	NAV-Not expected to be sensitive to static discharge.
<b>HAZARDOUS COMBUSTION PRODUCTS:</b>	Thermal decomposition products are toxic and may include ammonia, oxides of nitrogen and calcium.		

## SECTION 5 – REACTIVITY DATA

<b>CHEMICAL STABILITY:</b>	Stable under normal conditions.
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<b>INCOMPATIBILITY:</b>	Strong oxidizers, caustics, powdered metals, organic materials, oxidizable materials. Contact with alkalis will liberate ammonia.	<b>CORROSIVE BEHAVIOUR:</b>	-
<b>REACTIVITY AND UNDER WHAT CONDITIONS:</b>	Keep away from: heat sources, combustible material, reducing agents, organic material.		
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Thermal decomposition products are toxic and may include ammonia, oxides of nitrogen and calcium.		

## SECTION 6 – TOXICOLOGICAL PROPERTIES

<b>ROUTES OF ENTRY:</b>									
<b>SKIN CONTACT:</b>	Yes	<b>SKIN ABSORPTION:</b>	Not likely	<b>EYE CONTACT:</b>	Yes	<b>INHALATION:</b>	Yes	<b>INGESTION:</b>	Yes

<b>EFFECTS OF ACUTE EXPOSURE TO PRODUCT:</b>	
<b>INGESTION:</b>	May cause mild gastrointestinal discomfort. High level ingestion may cause abdominal cramps, bloody stool, nausea and vomiting, convulsions and collapse.
<b>INHALATION:</b>	Mildly irritating to nose, throat and respiratory tract & may cause coughing and sneezing. Excessive contact may cause drying of mucous membranes of nose & throat due to absorption of moisture and oil.
<b>EYE CONTACT:</b>	May cause irritation, redness and possible damage due to abrasiveness. Excessive contact may cause drying of mucous membranes of eye due to absorption of moisture and oils.

<b>SKIN CONTACT:</b>	Not likely to be absorbed through the skin.
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<b>EFFECTS OF CHRONIC EXPOSURE:</b>	-Not listed in carcinogenicity class (IARC, EC, TLV, MAK) -Not listed in mutagenicity class (EC, MAK) -Not classified as toxic to reproduction (EC)
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<b>EXPOSURE STANDARDS:</b>	<u>ACGIH</u>	<u>OSHA</u>
	10mg/m <sup>3</sup> -Inhalable particulate	50 mppcf or 15 mg/m <sup>3</sup> Total dust
	3 mg/m <sup>3</sup> - respirable particulate	5mppcf or 5 mg/m <sup>3</sup> respirable fraction

<b>CARCINOGENICITY:</b>	Ingredients are not listed as carcinogenic by ACGIH, IARC, NTP or OSHA.	<b>MUTAGENICITY:</b>	No adverse mutagenic effects are anticipated.
<b>REPRODUCTIVE HAZARD:</b>	No adverse reproductive effects are anticipated.	<b>TERATOGENICITY:</b>	No adverse effects are anticipated
<b>IRRITANCY:</b>	Yes	<b>SENSITIZATION:</b>	Yes
<b>SYNERGISTIC MATERIALS:</b>	It contains a nitrate which may react with amines to form a nitrosamine. Some nitrosamines have been shown to be carcinogenic in lab. Animals.		

## SECTION 7 – PREVENTIVE MEASURES

<b>PERSONAL PROTECTIVE EQUIPMENT:</b>	<p><b>Gloves and Eye Protection:</b> Wear neoprene rubber or butyl gloves. Wear chemical safety goggles and face shield if splashing may occur.</p> <p><b>Foot Wear:</b> Impervious safety boots.</p> <p><b>Clothing's:</b> wear coveralls with an impervious apron to protect street clothing.</p> <p><b>Respiratory protection:</b> Use NIOSH/MSHA approved dust mask. Use an air-supplied respirator if concentrations are higher.</p>
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**ENGINEERING CONTROLS:** General exhaust is acceptable. Local exhaust ventilated is preferred. Make up air should be supplied to balance air that is removed by local or general exhaust ventilation. Ventilate low lying areas such as sumps or pits where dense dust may collect. Observe all warnings and precautions listed for the product.

**HANDLING PROCEDURES:**

- Observe normal hygiene standards
- Avoiding raising dust
- Do not discharge the waste into the drain
- Remove contaminated clothing immediately
- Clean contaminated clothing

**STORAGE REQUIREMENTS:** -Keep container tightly closed. Keep out of direct sunlight. Store in a dry and well ventilated area. Keep away from heat source, combustible materials, reducing agents, organic materials. Storage temperature: 15/20 °C.

**LEAK AND SPILL PROCEDURE:** Minimize air borne spreading of dust. Wet sweeping or vacuuming is preferred. Don't use compressed air to clean surface. Return all material to container for disposal. Do not allow material to go to watercourses or sewers.

**WASTE DISPOSAL:** Dispose in compliance with government requirements and local disposal regulations. Do not dispose of waste with normal garbage, or to sewer system.

## SECTION 8 – FIRST AID MEASURES

**INHALATION:** Remove the victim into fresh air. Give artificial respiration **only** if breathing has stopped. Give cardiopulmonary resuscitation (CPR). Obtain medical attention immediately.

**SKIN CONTACT:** Rinse affected area with water and soap, remove the victim's contaminated clothing. Obtain medical attention if irritation persists.

**EYE CONTACT:** Flush eyes thoroughly for a minimum of 15 minutes. Obtain medical attention if irritation persists.

**INGESTION:** Do not attempt to give anything by mouth to unconscious victim. If victim is alert and not convulsing, rinse mouth and give water to dilute material. In case of spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits. Obtain medical attention.

## SECTION 9 – DEPARTMENT OF TRANSPORTATION

### SHIPPING INFORMATION

**US and Canada:** Not regulated

**International Shipping:** Not regulated

**TDG:** Not regulated.

**IATA:** Not regulated

## SECTION 10 – PREPARATION DATE OF MSDS

**PREPARED BY:** Agrisol Manufacturing Inc.  
220 – 7565, 132 Street  
Surrey, BC,  
V3Z 1K7, Canada

### ADDITIONAL INFORMATION:

At the time of preparation, the information and data contained in this MSDS are believed to be accurate and have been compiled from sources that are believed to be reliable.

**BUSINESS NUMBER:** 604-805-2417

**DATE:** October, 2015