



ULINK AGRITECH PRIVATE LIMITED
MATERIAL SAFETY DATA SHEET : CALCIUM NITRATE

1: IDENTIFICATION

Chemical Name	Calcium Nitrate	Trade Name	CALCIUM NITRATE
Synonyms	Calcium Nitrate	Molecular Formula	$\text{Ca}(\text{NO}_3)_2$
Uses	Water Soluble Fertilizer		
Manufacturer/ Supplier	Ulink AgriTech Pvt. Ltd. Office Nos. 001 And 002, Ground Floor Wing "A" And Nos. 003 And 004 Ground Floor Wing "B", Nyati Tech Park, Wadgaon Sheri, Pune - 411014, Maharashtra		
Emergency Contact	9503095030	E-mail	info@agrostar.in

2: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Name	CAS #	Percent or Content (w/w)
Calcium Nitrate	10124-37-5	≥96 %
Ammonium Nitrate	6484-52-2	≤1.7 %

3: HAZARD IDENTIFICATION

Acute Toxicity (oral): Acute Tox. 4; H302 Harmful if swallowed

Oxidizing Solid: Ox. Sol. 3; H272 May intensify fire; oxidizer.

Serious Eye Damage/Eye Irritation: Eye Dam. 1; H318 Causes serious eye damage.

Other Hazards: According to the results of its assessment, this substance is not a PBT or a vPvB.

4: FIRST AID MEASURES

General: Have the product container, label or safety data sheet while seeking medical attention, a poison control center or physician, or going for treatment.

Inhalation: Move person to fresh air and keep warm and at rest in a position comfortable for breathing. Immediately seek medical attention if symptoms are severe or persist.

Ingestion: Rinse mouth with water thoroughly and give water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention immediately and show this container or label.

Skin Contact: In case of contact with product, wash immediately skin area with plenty of water and soap. Remove and isolate contaminated clothing and shoes. Seek medical attention.

Eye Contact: Rinse immediately with plenty of water for several minutes. After 5 minutes remove contact lenses if present and continue rinsing with plenty of water. Continue to rinse with eyelid wide open for at least 15-20 minutes. Seek medical attention if irritation develops.

Note to physician: No specific Antidote. Treat symptomatically.

5: FIRE FIGHTING MEASURES

Extinguishing Media: Water

Unsuitable Extinguishing Media: Water jet, foam, fire extinguishing powder, sand

Specific Hazard: It's a reactive substance. Oxidizing property.

Hazardous Thermal (de)composition: Nitrogen oxides (NOx)

Special Procedures: Do not discharge extinguishing water into the drain or water bodies. If risk of water pollution occurs, notify appropriate authorities. Move containers away from area if it can be done without risk. If possible without risk, remove containers from fire zone, cool with water spray. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Dike area to prevent water runoff.

Protection of Fire Fighters: Wear a self contained breathing apparatus and complete protective clothes.

6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ventilate affected area. Do not breathe dust. Avoid contact with skin, eyes and clothing. Use personal protective equipment including suitable protective clothing, gloves and eye or face protection. Evacuate personnel to safe areas. Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

Environmental Precaution: Do not let product enter drains, surface water or subsoil water. Retain contaminated washing water and dispose of it

Methods for Cleaning-up: Pick up the material mechanically and place in a container for proper disposal in accordance with local, state and federal regulations.

7: HANDLING & STORAGE

Handling: Do not smoke, drink, or eat during handling. Do not breathe dust. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands and other exposed areas with soap and water before and after handling the product. Good personal hygiene procedures must be practiced.

Storage: Store in dry, cool and well-ventilated area. Protect against external exposure, such as heat, humidity. Keep in original container and tightly closed when not in use. Keep out of reach of children. Keep away from food, drink and animal feedingstuffs. Use normal safety procedure and good personal hygiene.

8: EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Measures: Ensure adequate ventilation of storage and working area. Handle in accordance with good industrial hygiene and safety practice.

General Protection: Avoid contact with eyes and skin. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

Personal Protection: Follow all precautions and instructions on the label. In all other cases the following recommendations would apply.

Respiratory Protection: In case of inadequate ventilation wear respiratory protection.

Skin Protection: Wear suitable protective working clothing (with elasticated cuffs and closed neck) to avoid skin contact.

Hand Protection: Wear suitable chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. Before reuse, clean and air them well.

Eye Protection: Safety goggles, chemical splash goggles or face shield for eyes protection should be used. Safety showers and eyewash should be easily available.

Others: Wash clothing before reusing.

9: PHYSICAL/CHEMICAL PROPERTIES

Appearance: Granules **Colour:** White - greyish - yellow

Density [g/cm3]: 2.5 @ 20 °C **Solubility in Water:** Miscible

Odour: Odourless **pH:** 6 (in aqueous solution 5% wt @ 20 °C)

Oxidizing Properties: Oxidizer **Physical State:** Solid

Melting Point [°C]: ~ 560

Boiling Point [°C]: No data available

Flammability (solid, gas): Non-combustible

Decomposition Temperature [°C]: 196–198

10: STABILITY & REACTIVITY

Stability: Stable under normal circumstances.

Conditions to Avoid: No specific conditions known which have to be avoided

Hazardous Decom. Products: Nitrogen oxides (NOx)

Material to Avoid: Reducing agents, Combustible materials

Hazardous Reactions: No known hazardous reactions.

11: TOXICOLOGICAL INFORMATION

Acute toxicity (Mixture):

Rat oral LD50 [mg/kg] : >300 - <2000

Rat inhalation LC50 [mg/l/4h] : No data available

Dermal (rat) LD50 [mg/kg]: >2000

Skin irritation: Shall not be classified as corrosive/irritant to skin

Skin Sensitization: Shall not be classified as a skin sensitizer

Eye irritation: Causes serious eye damage.

12: ECOLOGICAL INFORMATION

Aquatic Toxicity (acute) of components of the mixture:

Calcium nitrate - Rainbow trout LC50 96 h : >100 mg/l **Ammonium nitrate** - Carp LC50 48 h: 447 mg/l ; Daphnia magna EC50 48 h: 490 mg/l

Aquatic Toxicity (chronic) of Components of the Mixture:

Calcium nitrate - Algae ErC50 10 d: >1,700 mg/l ; Microorganisms EC50 180 min: >1,000 mg/l **Ammonium nitrate** - Algae ErC50 10 d: >1,700 mg/l

Bioaccumulative Potential: No data available

Persistence/ Degradability: Not Applicable, since inorganic substance.

Mobility: No data available

Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB.

13: DISPOSAL CONSIDERATION

Waste-disposal Procedures: Dispose of this product only according to the label or in compliance with government requirements or local regulations. Do not contaminate drains, streams, rivers or waterways with the chemical or used container.

Contaminated Packaging: Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

14: TRANSPORT INFORMATION

UN no.: 1454

Proper Shipping Name: Calcium nitrate

Land Transport (ADR/RID): Class- 5.1, Packing group-III, ERG No - 140, Special provisions (SP) 34, B120, IB8, IP3, T1, TP33

Air Transport (IATA/ICAO): Class- 5.1, Packing group-III, Special provisions (SP) A83, Excepted quantities (EQ) E1, Limited quantities (LQ) 10 kg

Sea Transport (IMO/IMDG): Class- 5.1, Packing group-III, Special provisions (SP) 208, 967, Excepted quantities (EQ) E1, Limited quantities (LQ) 5 kg, EmS F-A, S-Q, Stowage category A.

15: REGULATORY INFORMATION

Hazard symbol: GHS03, GHS05, GHS07

Signal word: Danger

H - Statement: H272, H302, H318

16: OTHER INFORMATION

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