ULINK AGRITECH PRIVATE LIMITED
MATERIAL SAFETY DATA SHEET : PLANTIGAIN CALCIUM

1:IDENTIFICATION

Chemical Name Mixture - Not Applicable

Synonyms Mixture - Not Applicable **Trade Name** **PLANTIGAIN CALCIUM**

Uses Fertilizer **Molecular Formula** Mixture - Not Applicable

Manufacturer/ Supplier Ulink AgriTech Pvt. Ltd.

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2:COMPOSITION/INFORMATION OF INGREDIENTS

Mixture

Chemical Name	CAS #	Percent or Content (w/w)
Water	7732-18-5	< 35%
Zinc oxide	1314-13-2	1% -1.5%
Colemanite (mineral)	-	<= 50%
Manganese Carbonate	598-62-9	< 8%
Urea	57-13-6	2% - 5%

3: HAZARD IDENTIFICATION

Classification of the Substance: Dangerous for the aquatic environment (Chronic Toxicity 3, H412; according to Reg.(EC) n 1272/2008 – CLP).

Label Elements: Hazard pictograms: Not required.

Signal word: None Precautionary Statements: P273: avoid release to environment

Hazard Statements: H412: Harmful to aquatic life with long-lasting effects.

Other Hazards: Environment: Large amounts of the product can be harmful to plants and other species. Therefore releases to the environment should be minimised .

PBT or vPvB: Substance is not PBT or 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: The product is not intended for ingestion. Swallowing small quantities (one teaspoon) will cause no harm to healthy adults. If larger amounts are swallowed, give two glasses of water to drink. Seek medical attention immediately and show this container or label.

Skin Contact: Product is corrosive. In case of skin contact, immediately wash skin area with plenty of water and soap. 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.

Symptoms and Effects, Both Acute and Delayed: Symptoms of accidental over-exposure to high doses of inorganic borate salts have been associated with ingestion or absorption through large areas of severely damaged skin. These may include nausea, vomiting, and diarrhoea, with delayed effects of skin redness and peeling (see Section 11).

Note to Physician: Supportive care only is required for adult ingestion of less than a few grams of the product. For ingestion of larger amounts, maintain fluid and electrolyte balance and maintain adequate kidney function. Gastric lavage is only recommended for heavily exposed, symptomatic patients in whom emesis has not emptied the stomach. Hemodialysis should be reserved for patients with massive acute absorption, especially for patients with compromised renal function.

5:FIRE FIGHTING MEASURES

Extinguishing Media: Use extinguishing media that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media: None. **Specific Hazard:** None. The substance is not flammable, combustible or explosive

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: Apply standard procedures. No specific precaution is necessary.

6:ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ventilate spillage area. For normal industrial exposures personal protective equipment is not required. Gloves and protective goggles, however must be considered one eye protection. complying with current legislation (UNI EN 374, UNI EN 14387, UNI EN 405, UNI EN 166).

Environmental Precaution: The product can cause damage to the plants or vegetation through absorption by the roots. Avoid contamination of water bodies during cleaning and disposal.

Methods for Cleaning-up: Appropriate containment: Prevent spills in water and cover discharges.
Spills into the ground: Aspirate, remove it with the help of a shovel or a broom and place in container for disposal according to local regulations apply.
Water spill: If possible, remove the water intact containers

7:HANDLING & STORAGE

Handling: Avoid spillage. Do not eat, drink, or smoke in working areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering areas where meals are consumed. Does not require special precautions handling; however , to preserve the integrity of the packaging manipulate the bags based on the principle "first-in, first-out"

Storage: Store in dry, cool and well-ventilated area away from strong reducing agents. Keep preferably at a temperature between 20°C and 25°C. Keep in original container and tightly closed when not in use. Keep out of reach of children. Do not contaminate water, food or feed by storage or disposal. Use normal safety procedure and good personal hygiene.

8:EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Measures: Use local exhaust ventilation to keep airborne concentrations of dust below permissible exposure limits. 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: Wear protective masks (class FFP3) for long exposures and high concentration levels.

Skin Protection: Wear suitable protective working clothing including long sleeved shirt, long pants, gloves, shoes and socks to avoid skin contact. Any clothing or other absorbent material which has been drenched or heavily contaminated must be discarded.

Hand Protection: Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC) or Viton.

Eye Protection: Wear safety glasses with side shields or goggles for eyes protection should be used. Safety showers and eyewash should be easily available.

9:PHYSICAL/CHEMICAL PROPERTIES

Appearance: Suspension **Colour:** Light brown **pH at 20°C**: 7.6 **Odour** : Odourless **Density [g/cc]:** 1.56

Solubility in Water: Not determined **Physical State:** Solid **Freezing Point:** Liquid stable till 0°C.

10:STABILITY & REACTIVITY

Stability: Stable under normal circumstances. **Material to Avoid:** Strong reducing agents. **Hazardous Decomp. Products:** None known

Conditions to Avoid: High air humidity. Sunlight exposure.Temperatures under - 5°C and over 40°C .

Hazardous Reactions: Reaction with strong reducing agents such as metal hydrides and alkali metals, generates hydrogen gas which may cause a danger of explosion

11: TOXICOLOGICAL INFORMATION

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This substance may have slight health effects on sensitive people, by inhalation and/or contact with eyes and/or ingestion

Means of Exposure: Ingestion, inhalation and trough not intact skin. **Corrosiveness/ Irritant Properties:** Slightly irritant to eyes and first respiratory system

Acute Toxicity: Ingestion: Low acute oral toxicity; The ingestion can provoke disturbs to the health, that they comprise abdominal pains with sting,nausea and vomit.

Inhalation: Low acute inhalation toxicity; inhalation of vapors causes irritation of upper and lower respiratory tract with coughing and difficulty in breathing; at higher concentrations can also cause pulmonary edema.

Eye irritation: Contact with eyes can cause irritation.

Skin irritation: Contact with skin can cause irritation.

Chronic Toxicity: No evidence found **Carcinogenicity:** No evidence found **Sensitising Properties:** Potassium Tetraborate is not a skin sensitiser

12: ECOLOGICAL INFORMATION

Acute Aquatic Toxicity: Toxicity is pH dependent and based on the release of Zn ions.

pH range	**EC50 Value [mg Zn/L]**
pH < 7	0.83 - Ceriodaphnia dubia (48h)
pH >7 - 8.5	0.27 - Selenastrum capricornutum (72h)

Persistence and Degradability: Biodegradation is not an applicable endpoint since the product is an inorganic substance.

Bioaccumulative Potential: There is no bioaccumulation.

Mobility in Soil: Nutriment for species vegetables. The product is soluble in water and is leachable through normal soil with water.

13: DISPOSAL CONSIDERATION

Dispose in accordance with applicable local regulations. Not disperse in city drain or water course. Small quantities can usually be disposed of at landfill sites. No special disposal treatment is required. Tonnage quantities of product are not recommended to be sent to landfills.

14: TRANSPORT INFORMATION

This product is not regulated for transport.

15: REGULATORY INFORMATION

Hazard Symbols: Not required **Hazard Statement:** H412: Harmful to aquatic life with long-lasting effects.

16: OTHER INFORMATION

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