

Premium Compost Accelerator

Ref No. MSDS00033 Version No. 001

1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	Premium Compost Accelerator
MANUFACTURER:	RELN
ADDRESS:	14b Williamson Road, Ingleburn NSW 2565
CONTACT NUMBER:	1300 137 356 / +61 2 9605 9999
FAX NUMBER:	1300 137 358 / +61 2 9605 9222
PRODUCT USE:	Used to accelerate and improve composting process for Premium Compost Accelerator.

2 HAZARD IDENTIFICATION

1. NO HAZARDOUS CLASSIFICATION ACCORDING TO SAFE WORK AUSTRALIA CRITERIA
 - Aggregates containing quartz classified as hazardous.
 - GHS Classification - Specific Target Organ Systemic Toxicity (Single Exposure): Category 2
 - Aglime and Poultry Manure not classified as hazardous
2. NOT A DANGEROUS GOOD
3. NON COMBUSTIBLE AND NON EXPLOSIVE

Risk

- Repeated exposure or prolonged exposure to aggregates product may cause irritation to respiration system and damage to organs.
- Inhalation of the fine aggregates may cause difficulties in breathing, coughing and shortness of breath.
- May cause irritation to eyes and skin.
- Respirable crystalline silica from the fine aggregates may result in lung fibrosis (silicosis) and is classified as carcinogenic to humans (IARC Group 1). Chronic exposure to respirable elongated mineral particles may result in lung disease.
- The risk of lung cancer is increased for smokers. Exposure may aggravate asthma.

Safety

- Avoid direct contact with skin. Wear suitable gloves when handling.
- Wear eye / face protection.
- Avoid breathing in dust.
- In case of contact with eyes, rinse with plenty of water and contact doctor or Poisons Information Centre (**Poison Emergency Hotline: 131126**).

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3 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients in premium compost accelerator:

Component	CAS Numbers	Composition / Content
Aglime / Limestone	1317-65-3	< 66%
Aggregate containing quartz (crystalline silica)	14806-60-7	< 33%
Poultry Manure (Katek Organic Super Booster Fertiliser)	N/A	1%

Aglime composition

Component	CAS Numbers	Content
Calcium carbonate	471-34-1	> 97%
Magnesium carbonate	546-93-0	> 2%
Impurities	N/A	> 1%

Aggregate containing quartz composition

Component	CAS Numbers	Content
Aggregate containing quartz (crystalline silica)	14806-60-7	< 100%
Respirable elongated mineral particulates	N/A	Trace amounts (< 0.01% w/w)

Aggregate containing quartz composition

Component	CAS Numbers	Content
Poultry Manure (Katek Organic Super Booster Fertiliser)	N/A	100%

Product is certified by Australian Organic Registered Input AI451

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4 FIRST AID MEASURES

Ingestion

- Due to product form and application, ingestion is considered unlikely. If swallowed, rinse mouth with plenty of water. Do not induce vomiting.
- If in doubt or not feeling well, contact doctor or poison information centre (13 11 26).

Eye Contact

- If in eyes, hold eyelids apart and flush continuously with water. Continue flushing until advised stop by
- Poison Information Centre, a doctor, or at least for 15 minutes.
- If irritation continues, seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by trained personnel.

Skin Contact

- Flush skin or/and hair with running water until product is removed.
- Remove contaminated clothing.
- Seek medical attention in the event of irritation.

Inhalation

- If inhaled with respiratory symptoms showing such as coughing, sneezing and nasal irritation occur, leave affected area immediately.
- If symptoms persist, seek medical attention.

5 FIRE FIGHTING MEASURES

Extinguishing media

- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Fire fighting procedures

- Alert Fire Brigade and inform location and nature of hazard.
- Wear breathing apparatus plus protective gloves in the event of a fire.
- Prevent, by any means available, spillage from entering drains or watercourses.
- Use fire fighting procedures suitable for surrounding area.
- Equipment should be thoroughly decontaminated after use.

Unusual fire and explosion hazards

- Product is non-combustible.
- Product may evolve toxic gases if strongly heated.

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- Product is not considered a significant fire risk, however the compost materials where this product is applied may be combustible.
- No unusual fire and explosion hazards known.

Fire incompatibility

- None known.

6 ACCIDENTAL RELEASE MEASURES

Spills

- Clean up spills immediately.
- Clear area of personnel as necessary.
- Avoid inhaling product.
- Avoid contact with skin and eyes.
- Avoid generating dust.
- Use protective equipment when handling the product.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wash area and prevent runoff / spillage entering into drains or waterways. If contamination of drains or waterways occurs, advise emergency services.
- Place spilled product in a suitable and labelled container for waste disposal / reuse.
- Alert Fire Brigade and inform them of location and nature of hazard (if necessary).

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

7 HANDLING AND STORAGE

Handling

- Avoid direct skin contact.
- Minimise dust generation and accumulation including keep product covered when not in use to avoid dust generation (or sealed if stored in container).
- Always wear mask and gloves when handling product.
- Use product in a well-ventilated area.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Always wash hands with soap and water after handling.
- Use good occupational safety and industrial hygiene practices.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

Storage

- All stockpiles and dumps should be managed to avoid dust generation, or runoff or the risk of collapse (i.e. covered).

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- Store in cool, dry, ventilated area away from sources of heat, moisture and incompatibilities.
- Avoid contamination of water, foodstuffs, feed or seed.
- Storage area/containers must contain appropriate chemical and hazards identification labels

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls

Ingredient	Reference	TWA	
		ppm	mg / m ³
Calcium carbonate	Safework Australia	–	10
Quartz (Silica Crystalline)	Safework Australia	–	0.1

Engineering controls

- Avoid inhalation and contact with eyes and skin.
- Use in well ventilated areas.
- Where inhalation risk exists, mechanical extraction ventilation is recommended.
- Maintaining respirable quartz (crystalline silica) and elongated mineral particle levels below the recommended exposure standard.
- If user operations generate airborne dust, ventilation must be sufficient to control airborne dust levels. Dust concentrations must be kept below permissible exposure limits.
- Where general ventilation is inadequate, use process enclosures, local exhaust ventilation or other engineering controls to control dust levels below permissible exposure limits.
- If risk of overexposure exists, wear Safework Australia approved respirator. Respirator must fit correctly to provide adequate protection.

Respiratory protection

- Wear a Safework Australia or AS/NZS approved respirator equipped with particulate cartridges when in dusty or in poorly ventilated areas.
- Respiratory programs and respirators must meet Safework Australia or AS/NZS requirements.
- If engineering controls are not possible, wear a fitted approved particulate respirator (i.e. P2 mask).

Eye protection

- Wear safety glasses/goggles or dust proof goggles when handling material.
- Personnel that wear soft contact lenses should be aware of the potential irritation and inform management. In the event of chemical exposure, wash out immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation – lens should be removed in a clean environment only after workers have washed hands thoroughly.

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Skin protection

- Avoid possible direct skin contact.
- Wear gloves and protective clothing to prevent repeated or prolonged skin contact.

Work hygienic practices

- Use general good occupational practice.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Pale grey/brown granular form	Auto-ignition temperature	Not applicable
Physical State	Solid form in fine particles	Viscosity	Not applicable
Percentage of solids	100%	Vapour Pressure	Not applicable
Odour	Minor fowl manure odour	Relative Density	Not available
pH (as supplied)	Not available	Relative Vapour Density	Not available
Melting Point	Not applicable	Specific Gravity	~ 2.8
Boiling Point	Not applicable	Solubility in Water	Not soluble
Flash Point	Not applicable	Evaporation Rate	Not available
Decomposition Temperature	> 825°C	Volatile Component	Not available
Explosive	Not explosive	Upper/Lower Flammable Limit	Not applicable

10 STABILITY AND REACTIVITY

Stability:

Product is considered stable.

Conditions to avoid:

Acidic condition, high heat, food, flames and dust generation.

Incompatibility (material to avoid):

Incompatible with strong acids, combustible materials, herbicides and fungicides.

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Hazardous decomposition or by-products:

This material will not decompose to form hazardous products.

Hazardous polymerization:

Polymerization will not occur.

11 TOXICOLOGICAL INFORMATION

Acute toxicity

Aglime: Acute oral toxicity (LD50): 6450 mg/kg [Rat].

Aggregates: Acute silicosis occurs after a short exposure to very high levels of silica and the alveolar spaces fill with a lipid and proteinaceous exudate. This could occur in exposure in confined spaces where respiratory protection is not worn. The condition causes rapidly progressive dyspnea and death, usually within months of onset. Workers with acute silicosis may be expected to have a largely restrictive functional abnormality with gas exchange abnormalities.

Skin

Contact may result in mechanical irritation, redness, rash and dermatitis.

Eye

Contact may result in mechanical irritation, infection, lacrimation and redness.

Ingesting

May be harmful if swallowed including burning of tongue, vomiting, abdominal irritation and diarrhea.

Inhalation

Inhalation of dust and or liquid mists may irritate, inflame or sensitise the nose through to the lungs, resulting in illness. This can range from hayfever or asthma, to pneumonia and organ damage.

Mutagenicity

Insufficient data available to classify as a mutagen.

Carcinogenicity

This product contains crystalline silica which is classified as carcinogenic to humans (IARC Group 1). However, there is insufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis.

Therefore, preventing the onset of silicosis will also reduce the cancer risk. There is also information that concludes the risk of lung disease in smokers is greatly increased when combined with dust exposures. The level of health risk posed by non-asbestiform respirable Elongated Mineral Particles continues to be debated internationally and there is no agreed position on the health risk posed, therefore a precautionary approach is considered appropriate.

Reproductive

Insufficient data available to classify as a reproductive toxin.

Stot – single exposure

Not classified as causing organ damage from single exposure.

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Stot – repeated exposure

Repeated exposure to respirable silica may result in pulmonary fibrosis (silicosis). Silicosis is a fibronodular lung disease caused by deposition in the lungs of fine respirable particles of crystalline silica. Principal symptoms of silicosis are coughing and breathlessness. Exposure to silica at levels that appear not to cause overt silicosis can cause chronic bronchitis and chronic obstructive airways disease. An increased susceptibility to tuberculosis occurs in workers with established silicosis. Epidemiological studies have revealed an excess prevalence of autoimmune disease like scleroderma, rheumatoid arthritis and systemic lupus erythematosus. In the last 10 years several studies have linked crystalline silica with renal disease, particularly glomerulonephritis.

Aspiration

This product is a solid and aspiration hazard are not expected to occur.

12 ECOLOGICAL INFORMATION

Toxicity

- The main component/s of this product are not anticipated to cause any adverse effects to the environment.

Persistence and degradability

- This product is considered persistent and non-degradable, except in acidic condition.

Bioaccumulation

- This product is not expected to bioaccumulate.

Mobility in soil

- A low mobility is expected in soil.

Other adverse effects

- Avoid contamination of drains and waterways

13 DISPOSAL CONSIDERATIONS

Waste disposal method

- Ensure product is kept damp, or covered to prevent dust generation.
- Dispose material in accordance with federal, state and local regulations.
- Consult environmental regulatory agencies for guidance on acceptable disposal practices.
- Never discharge directly into sewers or surface waters.

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14 TRANSPORT INFORMATION

NOT CLASSIFIED AS DANGEROUS FOR TRANSPORT REGULATIONS

15 REGULATORY INFORMATION

Poison schedule:	Not scheduled
Classification:	Safework Australia criteria is based on the GHS of Classification and Labelling of Chemicals.
Hazard codes:	Xn: Harmful
Risk phrases:	R48/20: Harmful – danger of serious damage to health by prolonged exposure through inhalation.
Safety phrases:	S22 Do not breathe dust. S45 In case of accident or feeling unwell, seek medical advice immediately.
Inventory listings:	Listed in (Australian Inventory of Chemical Substances). All components are listed on AICS, or are exempt.

16 OTHER INFORMATION

Personal protective equipment guidelines:

The recommendation for protective equipment contained within this MSDS is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Health effects from exposure:

It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a MSDS which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.