

PROPERTIES

Great Land is a non-hazardous, non-toxic, dark brown, soluble, liquid formulation of pH 4.0 and contains live microbes. A sweet odour arises from the dissolved energy source included to sustain the microbes.

The substance is classified as Risk Group 1 (ASNZS 2243.3), *'unlikely to cause human or animal disease'*.

CERTIFICATION

National Standard for Organic & Biodynamic Produce & NASAA Organic Standard.

- NCO Certification Number: 3835M
- Category of Certification: Input for organic production
- Certificate Number: C/12623/2015

Australian Certified Organic on behalf of Australian Organic Limited.

- ACO Certification Number: 12448
- Scope of Certification: Allowed Inputs
- Certificate Number: C-07047-2017

STORAGE

Great Land is distributed in 1,000L IBC's (shuttles).

Gross Weight approximately 1,100kg

The active ingredients in Great Land are living organisms which require specific storage conditions to ensure viability and product performance.

- Store upright and under cover in a cool, dry and well ventilated area, away from direct heat sources.
 - Do not store at temperatures above 34°C or below 5°C.
 - Minimise wide temperature fluctuations. Avoid freeze/thaw cycles.
- DO NOT store in direct sunlight
- Ensure vented cap can vent. Respiring bacteria produce CO₂. A blocked vent is evidenced by expansion of container.
- The 'Best Before' date is valid only for unopened containers stored under the conditions listed above.
- Ideally, use an entire container once opened. Otherwise, every effort must be taken to minimise contamination during handling. Replace the original vented cap securely.





HANDLING & APPLICATION

- The recommended base application rate is 40 litres of supplied product per hectare of treated area (productive root zone), applied two to four times during the production season. Application rates and frequency can vary considerably, as determined by specific soil types, pasture or crop type, growing conditions, disease pressures and economic feasibility. Please consult with your Great Land representative.
- Application is most effective prior to a rain or irrigation event, aiding infiltration into the topsoil.
- Avoid application in the heat of the day. Apply late afternoon / early evening in summer months.
- Great Land must be diluted before field application:
 - When applied by boom spray, dilution can range from 1 to 1 (1 part Great Land plus 1 part water, or 50% solution) up to 1 to 9, or 10% solution.
 - When applied through fertigation, Great Land should be diluted just prior to dosing into the irrigation water stream. Injection should be timed to occur around the middle third of the irrigation period, leaving at least 15-20 minutes for clean water flushing of the system after Great Land dosing is finished.
- Before mixing Great Land with chemicals or fertilisers, check the 'Compatibility Register'. Typically, incompatible products can be applied from 7 days before or after applying Great Land.
- Stored containers must be AGITATED prior to decanting for application as some particulates will settle to the bottom of the container. Agitation of 1,000L containers is typically done with a forklift.
- Dilution or irrigation water should not contain purifiers or antimicrobial sterilisers. **Assume all municipal water supplies are treated with sterilisers** such as chlorine. It is acceptable to use this water if rainwater is not available, however, the solution should be applied to paddocks promptly after mixing and must not be left standing for more than 4 hours.
- Mixing and spraying equipment must be thoroughly cleaned and rinsed before the addition of Great Land. Ensure removal of any non-compatible residues that could adversely affect bacterial viability.
- When mixing for dilution, firstly fill tank with water (and other compatible mixtures if needed) then fill the required volume of Great Land. Application should be performed promptly after mixing of final solution.
- Spray droplet size: large droplet size is recommended to aid penetration into the soil.
- After application is complete, thoroughly clean all equipment to prevent biofouling.

SAFETY INFORMATION

This following is an extract from Great Land's Material Safety Data Sheet (MSDS). A full version is available on request.

Section	Subsection	Response
Hazard Identification	Classification of the substance or mixture	Not a dangerous substance or mixture as per Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
	Risk classification ASNZS 2243.3	All 6 Great Land bacteria are classified Risk Group 1 by Australian Standards. Unlikely to cause human or animal disease
	Ingestion	None: Will cause discomfort & irritation, possibly nausea.
	Inhalation	None: Inhalation of fine mists cause irritation to the respiratory tract and nasal passages.
	Skin	None: Prolonged contact may cause dermatitis. Seek medical advice if allergic reactions develop.
	Eye	Will cause irritation and reddening.
	Chronic Health Hazards	No long-term exposure effects are known.
	Carcinogenicity	NA
Composition/ Ingredient Information	Ingredients	All ingredients are classified as non-hazardous at the concentrations used according to Safework Australia criteria <5% Trace elements <5% Sugars <3% Organic acids (food grade) Live bacteria: Minimum 10 ⁶ CFU/ml Live bacteria used are all Class 1 non harmful microorganisms
First-aid measures	Ingestion	Do NOT induce vomiting. Wash mouth out with water. Give water to drink. Seek medical advice. Poison hotline 13 11 26
	Skin	Prolonged contact may cause dermatitis. In the event of an allergic reaction, wash affected area thoroughly with soap and water.
	Eyes	Irrigate with running water immediately. Hold eyelids open and irrigate continuously with water for 15 minutes. Seek medical advice.
	Inhalation	None.
	Hazchem Code	Not applicable
	Exposure controls/personal protection	Occupational exposure limit values
	Engineering controls	NA
	Ventilation	NA
	Eye protection	If possible, wear goggles or glasses
	Skin protection	If possible, wear long sleeved clothing with gloves.
	Other protective clothing or equipment	If spraying large quantities avoid inhalation.
	Work hygienic practices	Wash hands after use.
	Biological Limit Values	None established.
	Protection Measures, such as personal protective equipment (PPE)	None established.
Physical and chemical properties	pH	4.5
	Flammability	Non-flammable.
Toxicology	Toxicological information	Non toxic