



# Noble Earth Technologies

## Bio-Nat Enzymes

### MATERIAL SAFETY DATA SHEET

#### COMPANY DETAILS

Company Name & Address: Noble Earth Technologies  
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Contact Name: Harry Pearsall  
**Not classified as hazardous according to the criteria of NOHSC Australia.**

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#### I IDENTIFICATION

Product Name: Noble Earth Technologies Bio-Nat Enzymes  
Other Names: None  
UN No: None allocated.  
Hazchem Code: None allocated.  
Dangerous Goods Class: None allocated.  
Sub Risk Class: No Subsidiary Risk.  
Packaging Group: None allocated.  
EPG: None allocated.  
Poison Schedule: Not Scheduled.  
Product Type: Mixture of bacteria and enzymes.  
Chemical Family: Complex mixture of natural materials. No set chemical composition.  
Uses: Digestion of waste materials. Odour and effluent control.

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#### ***Physical appearance & Properties:***

Appearance & Odour: Brown powder. Yeast-like odour.  
Melting/softening point: Decomposes.  
Boiling point and vapour pressure: Not applicable.  
Volatile materials: Nil  
Flashpoint: Does not burn.  
Specific gravity: About 1  
Solubility in water: Soluble.  
Corrosiveness: Not corrosive.

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Ingredients: Chemical entity	CAS No	Worksafe Exposure Limits		STEL mg/m3
		Proportion %	TWA mg/m3	
protease	9001-92-7	no data	not set	not set
amylase	9000-92-4	no data	not set	not set
lipase	9001-62-1	no data	not set	not set
cellulase	9012-54-8	no data	not set	not set
lactobacillus bifidus		Living bacteria. Not a chemical substance.		
bacillus subtilis		Living bacteria. Not a chemical substance.		
bacteriodes succinogenes		Living bacteria. Not a chemical substance.		
streptococcus cremornis		Living bacteria. Not a chemical substance.		

This is a commercial product, and the exact ratio of components may vary. Trace quantities of impurities are also likely.

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## II HEALTH HAZARD DATA

### **Health Effects:**

No specific data is available for the product for chronic exposure symptoms. The ingredients are not listed as carcinogenic in Worksafe's document "Exposure Standards for Atmospheric Contaminants in the Occupational Environment" (May 1995), nor in NOHSC's "List of Designated Hazardous Substances" (April 1999).

### **Acute Effects:**

**Swallowed:** Data suggests that the product should be considered to be non toxic by ingestion.

**Eye:** Data suggests that this product should be classified as possibly irritating to the eyes.

**Skin:** Data suggests that the product should be classified as not irritating or harmful to the skin.

**Inhalation:** Data suggests that the product should be considered to be non irritating and non toxic by inhalation.

Primary route of exposure is inhalation and skin and eye contact.

### **First Aid:**

If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 13 1126 from anywhere in Australia. If possible have this MSDS or product label with you.

**Swallowed:** If swallowed, do NOT induce vomiting. Wash mouth with water and give a glass of water to drink.

**Eye:** If this product comes into contact with eyes, hold open and wash with running water.

Ensure irrigation under eyelids by occasionally lifting them. Do not try to remove contact lenses unless trained.

**Skin:** If this product comes into contact with skin, wash skin with soap and water. Remove contaminated clothing and footwear. Ensure contaminated clothing is thoroughly washed before using again.

**Inhalation:** If mists, dusts or combustion products are inhaled, remove to fresh air. Lay victim down & keep warm and rested. If breathing is shallow, or has stopped, ensure clear airway and apply resuscitation or oxygen if available. Transport to hospital or doctor immediately.

**Advice to doctor:** Treat symptomatically. Note the nature of this product.

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## III PRECAUTIONS FOR USE

### **Exposure Standards:**

A time weighted average (TWA) concentration for an 8 hour day, and 5 day week has not been established by Worksafe Australia for any of the significant ingredients in this product. There is a blanket recommendation of 10mg/m<sup>3</sup> for inspirable dusts or mists when limits have not otherwise been established. The nature of this product makes it unlikely that this level will be approached in normal use. See ingredients section on page 1 of this data sheet.

### **Engineering Controls:**

In industrial situations, concentration values below the TWA value should be maintained.

Values may be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high; you are advised to modify the process or environment to reduce the problem.

### **Personal Protection:**

The following instructions are meant for people coming into frequent and lengthy contact with this product. For occasional use, take precautions suitable for the conditions under which the product is being used.

**Respiratory Protection:** It is usually safe to not use respiratory protection. However, there may be circumstances where use of a mask or other device is preferred. Use judgement. For help in selecting suitable equipment consult AS/NZS 1715.

**Protective Gloves:** Rubber, PVC or other protective gloves are not necessary but are desirable, especially if product is being used frequently or for lengthy periods. For help in selecting suitable gloves consult AS 2161.

**Eye Protection:** Eye protective measures are suggested when using this product. Consult AS 1336 and AS/NZS 1337 for information about eye protection.

**Clothing:** Clean overalls should be worn, preferably with an apron. Consult AS 2919 for advice on Industrial Clothing.

**Safety Boots:** Wearing safety boots is advisory. Consult AS/NZS 2210 for advice on Occupational Protective Footwear.

**Flammability Limits:** Not flammable.

Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

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## IV SAFE HANDLING INFORMATION

### **Storage & Transport:**

No special storage and transport requirements. This material has no UN Classification.

Not a Scheduled Poison. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames, and make sure the material does not come into contact with products listed under "Materials to avoid" below.

### **Spills and disposals:**

In event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage. Recycle containers wherever possible.

After spills, wash area, preventing runoff from entering drains. This material may be suitable for approved landfill. Dispose of only in compliance with local, state and federal regulations. Launder all contaminated clothing before re-use.

### **Fire/Explosion Hazard:**

There is no explosion hazard from this material under normal circumstances.

**Flashpoint:** Does not burn.

**Extinguishing Media:** carbon dioxide, dry chemical, foam, water fog.

**Special Fire fighting procedures:** As a minimum, wear overalls, goggles and gloves.

**Unusual fire & Explosion hazards:** Decomposition products are toxic and corrosive. May form flammable or explosive dust clouds in air.

**Stability:** Stable.

**Polymerisation:** Will not polymerise.

**Decomposition Products:** carbon dioxide, carbon monoxide and smoke (if combustion is incomplete), nitrogen oxides, oxides of sulfur, water.

Materials to avoid: strong oxidising agents.

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#### **V OTHER INFORMATION**

This MSDS is prepared in accord with the Worksafe Australia document "National Code of Practice for the Preparation of Material Safety Data Sheets", 1994.

**National Poisons Information Centre: Dial 13 1126 (from anywhere in Australia)**

This MSDS prepared by Kilford & Kilford Pty Ltd, March, 2005

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