

## MATERIAL SAFETY DATA SHEET

**PRODUCT NAME: ORGANIC GROWTH MEDIA (OGM)**

This material is to be considered Hazardous according to the guidance of AS 4454 for Composts, Soil Conditioners and Mulches

**IMPORTANT NOTICE:** This Material Safety Data Sheet (MSDS) is issued by Global Renewables in accordance with National Occupational Health and Safety Commission guidelines.

**DATE OF ISSUE: 9 August 2005**

### IDENTIFICATION

#### General

**Product Name:** Organic Growth Media (OGM)  
**Other Names:** Not Relevant  
**UN Number:** No UN Number Allocated  
**Dangerous Goods Class:** No Dangerous Goods Class Allocated  
**Subsidiary Risk:** No Subsidiary Risk Allocated  
**Hazchem Code:** No Hazchem Code Allocated  
**Poisons Schedule Number:** No Poisons Schedule Number Allocated

#### Company Details

**Name:** Global Renewables Eastern Creek  
**Address:** The Waste Management Centre, Wallgrove Road,  
Eastern Creek, NSW 2766  
**Telephone:** 02 9677 3120  
**Fax:** 02 9677 3199  
**Emergency Telephone:** 02 9677 3120 7.30am to 5.00pm  
**ACN:** 105 104 087

#### Product Description

Organic Growth Media. A loose, composted product, similar to soil in appearance

#### Use

This product is designed to assist plant growth when added to soil. The product has plant nutrient and water retaining properties.

## HEALTH HAZARD INFORMATION

NON HAZARDOUS SUBSTANCE, NON DANGEROUS GOODS

### Risk Phrases

**R42/43** May cause sensitisation by inhalation and skin contact.  
**R10** Flammable

### Safety Phrases

**S2** Keep out of the reach of children  
**S3** Keep in a cool place  
**S16** Keep away from sources of ignition.  
**S22** Do not breathe dust.  
**S24** Avoid contact with skin.  
**S25** Avoid contact with eyes.  
**S36** Wear suitable protective clothing.

No adverse health effects are expected if the product is handled according to the safety data sheet and product labeling. Symptoms that may arise if the product is mishandled are:

### Acute Health Effects

**Swallowed:** Ingestion is unlikely through normal use. However, swallowing any amount of this product may cause abdominal discomfort and potentially increase the risk of gastrointestinal infections.

**Eye:** In the event that any dose of this material or the dust and/or liquid mist (bioaerosols) comes into contact with the eyes it may have an irritating effect resulting in redness and watering or an infection.

**Skin:** Any level of skin contact with this product and/or their dusts and liquid mists (bioaerosols) may lead to skin irritations and in susceptible people skin sensitisation, dermatitis or skin infection.

**Inhaled:** Inhalation of any amount of dust and/or liquid mists (bioaerosols) from this product may irritate, inflame or sensitise the nose, throat and lungs, resulting in illnesses ranging from hayfever or asthma to pneumonia (e.g. Legionnaire's disease) or pneumonia-like illnesses.

### Chronic Health Effects

Inhalation of dust and/or liquid mists may irritate, inflame or sensitise the nose, throat and lungs and exacerbate pre-existing conditions such as asthma, hayfever and bronchitis. Direct contact with this material or its dust and/or liquid mists (bioaerosols) may cause skin irritation (dermatitis), and skin or eye infection or irritation.

People particularly at risk are those suffering from asthma or allergies, and those whose immune defence systems are compromised.

## COMPOSITION & INGREDIENTS

### Ingredients

This product is comprised of refuse derived material.

Moisture content is approximately 35% to 55% of material weight.

General (dry) proportions are:

|   |             |                     |
|---|-------------|---------------------|
| Organic Material                                | 30 – 60 %   | typically 35 - 50 % |
| Calcium   | 2.5 – 3.5 % |                     |
| Nitrogen  | 0.5 – 2.5 % | typically 2%        |
| Phosphorus (as P <sub>2</sub> O <sub>5</sub> ): | 0.2 - 2.0%  | typically 1%        |
| Potassium (as K <sub>2</sub> O):                | 0.3 - 1.5%  | typically 1.4%      |
| Inert Material                                  | 30 - 50%    |                     |

Physical contaminants:

Total glass metal & plastic (>2 mm) target < 0.5%, typically 0.6-0.7%

Stones and other consolidated mineral contaminants > 2 mm: < 5%, typically <3%

## FIRST AID MEASURES

### First Aid

**Swallowed:** The patient should be given water to drink and medical attention should be sought if any abdominal symptoms occur.

**Eye:** Eyes should be immediately and thoroughly flushed with lukewarm water for as long as necessary to alleviate the problem (although approximately 10 minutes can be used as a guide). Professional medical assistance should be sought if the symptoms persist.

**Skin:** The affected areas should be washed thoroughly with mild soap and lukewarm water as quickly as possible.

**Inhaled:** If an irritation occurs, the affected parties should be moved (or move themselves) away from the product or its dusts or mists (bioaerosols) into a source of fresh air.

### First Aid Facilities

Facilities should be available where this product is used to carry out the first aid procedures outlined above.

### Advice to Doctor

Treat symptomatically.

## FIRE FIGHTING MEASURES

**Extinguishing Method:** Water, fog, foam, CO<sub>2</sub>, dry chemicals. Smoldering material in a large pile can be dug out with earth moving equipment and extinguished. This should not be attempted in windy conditions.

Burning in a confined space may release dangerous levels of carbon monoxide and other harmful gases. Plastics in the material can also release toxic fumes when ignited.

**Precautions for firefighters:** Full Emergency Equipment with breathing apparatus and full protective clothing should be worn by firefighters.

## ACCIDENTAL RELEASE MEASURES

**Emergency:** No emergency measures are required for accidental release of the product, however spilled material should be collected and used for its intended purpose or disposed of as trade waste.

**Clean up:** Pick up or shovel material taking care to minimize dust. Material can be cleaned up by wet sweeping and vacuuming. Material should be collected in containers and disposed of as (inert) trade waste.

## HANDLING AND STORAGE

**Storage Temperature:** Not affected by extremes of temperature

**Shelf Life:** N/A (indefinite) but should be used within 6 months

**Handling and Storage Precautions:** Avoid eye contact and breathing of dusts if generated.

The product can be flammable if ignited. It should therefore be stored away from ignition sources. The areas where these products exist, and the vicinity of these areas, are recommended to be kept as non-smoking zones.

## EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Standards:** There is no specific standard for composts. However exposures to the product or its dusts or mists (bioaerosols) to the skin and eyes, along with swallowing and inhalation, should be minimised through the adoption of the protective measures contained in this MSDS.

**Engineering Controls:** Any involvement with these products should be conducted in such a way as to avoid contact with the skin and eyes along with swallowing and inhalation. It should also minimise the exposure to dusts or mists (bioaerosols).

### Personal Protection

**Respiratory Protection:** An approved respirator should be worn that is suitable for respirable particulates and which conforms with AS/ NZS 1715 and AS/ NZS 1716 when exposed to dust and/ or liquid mist (bioaerosols). The standards should be followed in the selection, fit testing, use, storage and maintenance of the respiratory equipment.

**Skin Protection:** Standard duty gloves according to AS 2161 should be worn along with boots and comfortable loose clothing. Long sleeved shirts and long trousers are recommended if a skin irritation occurs or a person has a history of skin conditions. All clothing should be laundered regularly.

**Eye Protection:** Non-fogging dust resistant goggles or safety glasses guided by AS/ NZS 1336 should be worn if there is a risk of dust and/ or liquid mist (bioaerosols) contacting the eyes.

## PHYSICAL AND CHEMICAL PROPERTIES

### Physical Description/ Properties

|                             |  |
|-----------------------------|--|
| <b>Appearance:</b>          | A generally dark brown material of fine particle sizes with occasional flecks of lighter material and little detectable odour. |
| <b>Odour</b>                | Non specific earthy odour  |
| <b>Vapour Pressure:</b>     | Not Relevant   |
| <b>Melting Point:</b>       | Not Relevant   |
| <b>Flashpoint:</b>          | Not Relevant   |
| <b>Flammability Limits:</b> | Not Relevant   |
| <b>Solubility in Water:</b> | Not Soluble  |

### Other Properties

|                      |   |
|----------------------|---|
| <b>PH</b>            | 5.5 to 7.5  |
| <b>EC:</b>           | <1000 mS/m, typically <700 mS/m                             |
| <b>Bulk Density:</b> | 600-800 kg/m <sup>3</sup> , typically 640 kg/m <sup>3</sup> |
| <b>Particle size</b> | < 15 µm   |
| <b>VOC Content</b>   | 18 – 35 %   |

## STABILITY AND REACTIVITY

|  |                      |
|--|----------------------|
| <b>Chemical Stability:</b>               | Stable               |
| <b>Conditions to Avoid:</b>              | Excessive heat       |
| <b>Incompatible Materials:</b>           | None in designed use |
| <b>Hazardous Decomposition Products:</b> | None                 |
| <b>Hazardous Reactions:</b>              | None                 |

## TOXICOLOGICAL INFORMATION

### Acute Health Effects

**Swallowed:** Ingestion is unlikely through normal use. However, swallowing any amount of this product may cause abdominal discomfort and potentially increase the risk of gastrointestinal infections.

**Eye:** In the event that any dose of this material or the dust and/or liquid mist (bioaerosols) comes into contact with the eyes it may have an irritating effect resulting in redness and watering or an infection.

**Skin:** Any level of skin contact with this product and/or their dusts and liquid mists (bioaerosols) may lead to skin irritations and in susceptible people skin sensitisation, dermatitis or skin infection.

**Inhaled:** Inhalation of any amount of dust and/or liquid mists (bioaerosols) from this product may irritate, inflame or sensitise the nose, throat and lungs, and exacerbate pre-existing conditions such as asthma, hayfever and bronchitis.

## ECOLOGICAL INFORMATION

|   |   |
|---|---|
| <b>Ecotoxicity:</b>                     | The product is a stabilized, non hazardous, soil like substance. No ecological concerns are anticipated |
| <b>Persistence &amp; degradability:</b> | Minimal degradability though will broken down naturally into surrounding soil over time                 |
| <b>Mobility:</b>                        | Product has minimal mobility, but can be dusty if it dries out excessively                              |

## DISPOSAL CONSIDERATIONS

Waste material can be disposed of as trade waste in accordance with the local authority guidelines. Material is designed for use in soil and will typically be disposed of as part of its intended use.

## TRANSPORT INFORMATION

No special storage or transport requirements necessary, although the material should be kept away from ignition sources.

|                                 |                                      |
|---------------------------------|--------------------------------------|
| <b>UN Number:</b>               | No UN Number Allocated               |
| <b>Dangerous Goods Class:</b>   | No Dangerous Goods Class Allocated   |
| <b>Subsidiary Risk:</b>         | No Subsidiary Risk Allocated         |
| <b>Hazchem Code:</b>            | No Hazchem Code Allocated            |
| <b>Poisons Schedule Number:</b> | No Poisons Schedule Number Allocated |

## REGULATORY INFORMATION

The product is made at Global Renewables' licensed waste facility in compliance with standards set out in **AS 4454-2003 : Composts, soil conditioners and mulches** for the preparation of a composted product.

The material also complies with the guidance by the **EPA 1997, Environmental Guidelines: Use and Disposal of Biosolids Products**. These guidelines restrict the uses of material with high levels of certain chemical and elemental properties.

## OTHER INFORMATION

**DATE OF ISSUE: 9 August 2005**

**Revision 1.1**

### Abbreviations

**OGM:** Organic Growth Medium

As of the date of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state laws. However, no warranty or representation of law or fact, with respect to such information, is intended or given.