MATERIAL SAFETY DATA SHEET

PRODUCT NAMES: ORGANIC GROWTH MEDIA (OGM), ORGANIC GROWTH MEDIA – PASTEURISED (OGM-P), ORGANIC GROWTH MEDIA – COMPOSTED (OGM-C), REHABILITATION AND REMEDIATION ORGANICS (RRO)

This material is not classified as hazardous according to the criteria of NOHSC.

However it has characteristics which may create hazards in the workplace according to the guidance of Australian Standard 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: 17 November 2009

IDENTIFICATION

General

Product Name: Organic Growth Media (OGM)

Other Names: Organic Growth Media – Pasteurised (OGM-P), Organic Growth Media – Composted (OGM-C), Rehabilitation and Remediation Organics (RRO)

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: WSN Waste Management Centre, Wallgrove Road, Eastern Creek, NSW 2766

Telephone: 02 9677 3120

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Emergency Telephone: 02 9677 3120 7.30am to 5.00pm

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Product Description

This MSDS applies to several products with designations OGM, OGM-P, OGM-C, and RRO. All are loose, composted products 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 gastro-intestinal 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	25-60%	typically 35-50%
Calcium	2.0-3.5%	
Nitrogen	0.5-2.5%	typically 1.5-2%
Phosphorus (as P2O5):	0.2-2.0%	typically 0.5-1.5%
Potassium (as K2O):	0.3-1.5%	typically 0.7-1.2%
Inert Material	30-50%	

Physical contaminants:

Total glass metal (>2 mm) & hard plastic (>5 mm) target <2.8%, current typically 1.0-5.0%

Light and film plastic (>5 mm): target <0.3%, current typically 0.1-0.5%

Stones and other consolidated mineral contaminants > 2 mm: < 5%, typically <1%

FIRST AID MEASURES

First Aid

Swallowed: The patient should be given water to drink and medical attention should be sought if any 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_2 , dry chemicals. Smouldering 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 spilt 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

Appearance:	A generally dark brown material of fine particle sizes with occasional flecks of lighter material and little detectable odour.
Odour	Non specific earthly odour
Vapour Pressure:	Not Relevant
Melting Point:	Not Relevant

Flashpoint:	Not Relevant
Flammability Limits:	Not Relevant
Solubility in Water:	Not Soluble

Other Properties

pH	5 to 8.5
EC:	<12 mS/cm, typically 6-10 mS/cm
Bulk Density:	600-800 kg/m^3, typically 640 kg/m^3
Particle size:	<10 mm

STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions to Avoid:	Excessive heat
Incompatible Materials:	None in designed use
Hazardous Decomposition Products:	None
Hazardous Reactions:	None

TOXICOLOGICAL INFORMATION

No information available.

ECOLOGICAL INFORMATION

Ecotoxicity:	The product is a stabilized, non-hazardous, soil like substance. No ecological concerns are anticipated
Persistence & degradability:	Minimal degradability though will broken down naturally into surrounding soil over time
Mobility:	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.

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

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: 17 November 2009 **Revision 1.3**

Abbreviations
OGM: Organic Growth Media
OGM-P: Organic Growth Media – Pasteurised
OGM-C: Organic Growth Media – Composted
RRO: Rehabilitation and Remediation Organics

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.

END OF MSDS