

Safety Data Sheet (SDS) BIOCULT MYCORRHIZAE WS

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According to SANS 11014:2010 & 10234:2008

Revision Date: 2021/02/04

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Version: 1.1

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: **BIOCULT[®] MYCORRHIZAE WS**

Product registration no: M167, Act 36 of 1947. Fertilizer Group 3

Relevant identification uses of the substance and uses advised against:

Identified uses: Soil inoculant.

Uses advised against: Use only as directed.

Registration holder:

AECI Limited
Becquelin Farm Erf 918
Gustrouw Farm Mondeor Road
Somerset West

Emergency telephone numbers:

Biocult (Pty) Ltd: +27 (21) 8581140 (o/h)

AECI Limited: (011) 823 8000 (o/h), Spill Tech: 086 100 0366 (a/h)

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to

SANS 10234:2008, Regulation EC 1272/2008 [EU-GHS/CLP]	
Hazard classes/Hazard categories	Hazard statement
Not required	Not required

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: None.

The most important adverse human health effects: None.

Label elements

Hazard pictograms: None required.

Signal Word: None required.

Hazard Statements: None.

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Precautionary Statements: P201 Keep out of reach of children. P260 Do not breathe dusts or mists. P264 Wash thoroughly after handling. P270 Do not eat, drink when using this product.

Special labelling of certain mixtures: None.

Other hazards: None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients: Classification non-hazardous.

Contains Perlite CAS 130885-09-5 not classified as hazardous. A mineral composed of sodium potassium aluminium silicate of variable composition. Perlite is considered a nuisance dust only.

Product description: Product contains an inert perlite powder carrier / base with Vascular Arbuscular *Mycorrhizae* propagules and *Trichoderma* spores (common beneficial micro-organisms – never shown to be a causal agent in human illness)

Mycorrhizae: Mixture of three (3) *Glomus* species: Minimum 400 propagules/g.

Trichoderma: Mixture of five (5) *Trichoderma asperellum* strains: Minimum 1×10^9 CFU/g.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

In case of skin contact: In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if discomfort occurs.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if discomfort or irritation occurs.

In case of ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if you feel unwell.

Most important symptoms and effects, both acute and delayed:

Inhalation: May cause respiratory irritation.

Ingestion: None.

Skin contact: None.

Eye contact: None.

Indication of any immediate medical attention and special treatment needed:

None known.

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SECTION 5. FIRE -FIGHTING MEASURE

Extinguisher media:

Suitable extinguisher media: Use an extinguishing agent suitable for the surrounding fire: use water spray, alcohol-resistant foam, powder or carbon dioxide. For large fires, apply water or alcohol resistant foam.

Unsuitable extinguishing media: Water jets or high-pressure water jets.

Special hazards arising from the mixture:

No information.

Advice for fire-fighters:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Be sure to use an approved/certified respirator or equivalent.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Wear masks and gloves if exposed to large quantities of dust.

For emergency responders: Wear masks and gloves if exposed to large quantities of dust.

Environmental precautions:

Will not harm environment. Will encourage plant growth.

Methods for containment and cleaning up:

For small spills Sweep or vacuum without creating dust, into a suitable container for disposal and wash area with water.

For large spills Sweep or vacuum without creating dust, into a suitable container for disposal and wash area with water.

Reference to other sections:

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for information on disposal.

Additional information:

None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Keep container dry.

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

Store product in original packaging under dry conditions, preferable room temperature or colder and avoid direct sunlight and excess heat.

Store product in a segregated and approved area. Keep container tightly closed and sealed until ready for use.

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Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL):

Perlite (CAS 93-763-3) Exposure limits in air: TLV 10 mg/m³ (ACGIH), PEL 15 mg/m³ (OSHA).

Perlite is considered a nuisance dust.

Biological exposure indices (BEI): None

Additional exposure limits under the conditions of use: None.

Exposure control:

Appropriate engineering controls: Not required under normal use.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Use safety glasses, if there is a potential for exposure to particles/mist or dust which could cause eye discomfort.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: None required.

Respiratory protection: Respiratory protection is required when ventilation is inadequate, or discomfort is experienced; use an approved air-purifying respirator. Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance (form): Powder.

Colour: Light pearl grey.

Odour: No information available.

Odour threshold: No information available.

pH (at concentration): No information available.

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Melting point/range (°C): No information available.

Boiling point/range (°C): No information available.

Flash point (°C): No information.

Evaporation rate: No information available.

Flammability (solid, gas): No information available

Ignition temperature (°C): No information available.

Upper/lower flammability/explosive limits: No information available.

Vapour pressure (20°C): No information available.

Vapour density: No information available.

Water solubility (g/l) at 20°C: Soluble in water.

n-Octanol/Water partition coefficient: Soluble.

Auto-ignition temperature: No information available.

Decomposition temperature: No information available.

Viscosity, dynamic (mPa s): No information available.

Physical hazards:

Explosive properties: Not explosive.

Other information:

Fat solubility (solvent-oil to be specified): No information available.

Bulk density: 0.22 kg/L

Dissociation constant in water (p Ka): No information available.

Oxidation-reduction potential: No information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity:

The product is stable under normal conditions.

Chemical stability:

The fungal spores lose viability with time. A six-month shelf life from manufacturing date is stamped on each packet if stored at ambient temperature ($\pm 25^{\circ}\text{C}$). One (1) year if stored between $5 - 10^{\circ}\text{C}$.

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Possibility of hazardous reactions:

No information available.

Conditions to avoid:

No information available.

Incompatible materials:

Fungicides and toxic compounds.

Hazardous decomposition products:

None identified.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: No Information available.

Method: No Information available.

Dosage: No Information available.

Routes of administration: No Information available.

Results: No Information available.

Absorption: No Information available.

Distribution: No Information available.

Metabolism: No Information available.

Excretion: No Information available.

Information on toxicological effects:

Acute toxicity:

Acute oral toxicity: Non-toxic.

Inhalation toxicity: Harmful concentrations of dust are unlikely to occur through normal use of this product.

Chronic toxicity: No information available.

Skin corrosion/irritation: Not a skin irritant.

Serious eye damage/irritation: No information available.

Respiratory or skin sensitization: No information available.

Germ cell mutagenicity: No information available.

Carcinogenicity: No information available.

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Reproductive toxicity: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

No known toxicity.

Fish, birds and other animals: No known toxicity.

Phyto pathogens: Below threshold limits

Persistence and degradability:

The bacterial as well as fungal spores are biodegradable. The base and carrier are an inert substrate.

Bioaccumulative potential:

No information available.

Mobility in soil

None.

Results of PBT& vPvB assessment:

No information available.

Other adverse effects:

No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

Product/ packaging disposal:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

SECTION 14. TRANSPORT INFORMATION

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	Not required	Not required	Not required
UN Proper shipping name:	Not required	Not required	Not required
Transport hazard class:	Not required	Not required	Not required
Packaging group:	Not required	Not required	Not required
Marine pollutant:	Not required	Not required	Not required
Special precautions for user:	Not required	Not required	Not required

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Transport in bulk according to MARPOL 73/78 Annex II and the IBC code	Not required	Not required	Not required
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Inland waterways: Not required

Emergency response information: Not required

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993 Regulation for Hazardous Chemical Substances.

ACGIH: American Conference of Governmental Industrial Hygienists (ACGIH)

Relevant information regarding restrictions:

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP]

Other National regulations: National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.

National Environmental Management: Waste Act 59 of 2008. Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act (Act 36 of 1947).

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

GHS aligned.

Relevant classification and H statements (number and full text):

None.

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to readers:

Employers should use this information only as a supplement to other information gathered by them and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.