



## SAFETY DATA SHEET

### 1. IDENTIFICATION

**Product Name:** Recruit™ Cereals  
**Intended Use/Restrictions of use:** Microbial biofertilizer for Cereals  
**Details of Supplier of SDS:** Wilchem (Pty) Ltd  
 39 Jonal Drive  
 Cavan, SA 5094  
 E-mail: adminsa@wilchem.com.au  
 Emergency telephone: (08) 8359 6855

### 2. HAZARDS IDENTIFICATION

**Classification of the Substance** CLP / GHS / Hazcom 2012 Classification: Not classified as hazardous  
**Skin Contact:** Non-irritant  
**Eye Contact:** Non-irritant  
**Inhalation:** Not an inhalation hazard under normal conditions of use. Certain individuals may become sensitised to the material, as with any other proteinaceous dust.  
**Ingestion:** Low toxicity product. It is highly unlikely that a sufficient quantity would be accidentally swallowed to cause any injury.

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS#	EC#	% Range	Classification GHS
Perlite	93763-70-3	Not assigned	25 - 30 %	Not classified as hazardous
Dextrose Monohydrate	14431-43-7	200-075-1	70 - 75 %	Not classified as hazardous
Trichoderma spp.	Not assigned	Not assigned	0.1 – 1 %	Not classified as hazardous

### 4. FIRST AID MEASURES

**Skin Contact:** Wash exposed skin with soap and water.  
**Eye Contact:** Flush thoroughly with water for 15 minutes. If any irritation persists, seek medical attention.  
**Inhalation:** Remove person to fresh air. Get medical attention if any signs of sensitization (e.g. difficult breathing, chest pain, headache, and flu like symptoms) occur.



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**Ingestion:** Drink water, do not induce vomiting. Seek medical attention.

### 5. FIRE-FIGHTING MEASURES

**Type of Material:** Non-combustible solid.

**Extinguishing Media:** This product is not flammable or combustible.

**Special Exposure Hazards:** This product does not burn freely, but as with several organic powders, flammable dust clouds may be formed in air.  
Avoid creating dust and keep away from sources of ignition.

**Special Protective Equipment:** Wear chemical protections suit, suitable gloves and boots, and self-contained breathing apparatus.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Respiratory protection and protective clothing are recommended. Ensure adequate ventilation.

**Environmental Precautions:** Avoid disposal of large amounts into drains, surface water or groundwater.

**Disposal Method(s):** Carefully sweep up material and wash exposed area with soap and water. Dispose material into suitable container, within local regulations.

### 7. HANDLING AND STORAGE

**Handling Precautions:** Follow Biosafety Level 1 procedures.  
Do not eat or drink while handling the product.  
Use respiratory protection and ensure adequate ventilation.  
Wash exposed skin with soap and water after handling this product.

**Storage Conditions:** Store in accordance with package instructions.  
Do not freeze.  
Store in a cool, dry and dark place.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Control Parameters:** Total inhalable dust: 10 mg/m<sup>3</sup> as an 8-hour time-weighted average (TWA)  
Respirable dust: 4 mg/m<sup>3</sup> as an 8-hour TWA.



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<b>Technical Measures/Precautions:</b>	Adequate ventilation
<b>Personal Protection:</b>	Dust mask (e.g. 3M Dust Respirator 8810) Safety goggles. Light-weight protective clothing. Gloves (plastic or rubber).

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### General Information:

<b>Appearance:</b>	Solid / Powder
<b>Colour:</b>	Grey-green
<b>Smell:</b>	Earthy odour
<b>Formulation Type:</b>	Water dispersible Powder (WS)
<b>Storage Stability:</b>	Store at a constant temperature between 5 and 24°C. Do not freeze. Avoid temperature fluctuations.
<b>Shelf Life:</b>	12 months at room temperature.
<b>Bulk Density:</b>	800 kg/m <sup>3</sup>
<b>Flammability:</b>	Non-flammable
<b>Flash Point:</b>	Not applicable
<b>pH:</b>	pH 6-7
<b>pH of 1% Aqueous Dilution:</b>	pH 6-7
<b>Oxidizing Properties:</b>	Non-oxidizing
<b>Corrosiveness:</b>	Non-corrosive
<b>Water Content:</b>	0.5%
<b>Solubility in Water:</b>	Insoluble
<b>Foaming:</b>	Not applicable
<b>Particle size:</b>	Median particle size 15 micron
<b>Volatility:</b>	Non-volatile
<b>Viscosity:</b>	Not applicable

### 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Fungal spores lose viability with time. This product is stable for 12 months when stored at a constant temperature between 8 and 24°C.
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<b>Conditions to Avoid:</b>	Avoid temperature fluctuation. Avoid temperatures above 24°C and below 8°C.
<b>Materials to Avoid:</b>	Strong oxidizing agents, acids, alkalis, *non-compatible fungicides and agrochemicals.
<b>Hazardous Decomposition Products:</b>	None known

\*Please e-mail [info@biosolutionsaus.com](mailto:info@biosolutionsaus.com) for an updated agrochemical compatibility list.

### 11. TOXICOLOGICAL INFORMATION

<b>Acute Oral Toxicity:</b>	> 1.0 x 10 <sup>9</sup> CFU/animal (rat)
<b>Eye Irritation:</b>	Minimal irritation (rat)
<b>Skin Irritation:</b>	Non-irritant (rabbit)
<b>Acute Pulmonary:</b>	Non-infective to mammals. > 5.8 x 10 <sup>7</sup> CFU/animal (rat)
<b>Acute Intra-peritoneal:</b>	Non-infective to mammals. > 4.9x 10 <sup>7</sup> CFU/animal (rat)
<b>Intravenous:</b>	Non-infective to mammals. > 1.0 x 10 <sup>7</sup> CFU/animal (rat)
<b>Chronic Effects:</b>	None of the components is known as carcinogenic; does not contain dangerous goods. Not classified by NTP, IARC or OSHA. Non infective and not pathogenic in rat.

### 12. ECOLOGICAL INFORMATION

<b>Environmental Behaviour:</b>	Trichoderma occurs naturally in the soil.
<b>Mobility and Bio-accumulation potential:</b>	Estimated half-life of conidia spores in water is around 6 weeks.
<b>Ecotoxic Effects:</b>	There are no published reports of disease associated with Trichoderma in birds, wild mammals, fish, insects, Earthworms and plants.
<b>General Information:</b>	No acute or chronic effects are known.

### 13. DISPOSAL CONSIDERATIONS

<b>Precautions:</b>	None of the ingredients raise concern for the environment.
<b>Disposal of Product:</b>	Unwanted product may be safely disposed of in a land-fill or discarded as non-hazardous waste in accordance with local regulations.

### 14. TRANSPORT INFORMATION



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Road/rail:	Not classified as dangerous in the meaning of transport regulations.
IMDG:	Not classified as dangerous in the meaning of transport regulations.
ICAO:	Not classified as dangerous in the meaning of transport regulations.
ADR:	Not classified as dangerous in the meaning of transport regulations.

### 15. REGULATORY INFORMATION

Supply Classification:	None
Hazard Symbols:	None
Risk Phrases:	May cause sensitisation by inhalation.
Safety Recommendations:	Keep out of reach of children, uninformed persons and animals. Wear protective gloves. Wear respiratory protection and avoid inhalation of the dust. To avoid risks to human health and the environment, comply with the instructions for use.

### 16. OTHER INFORMATION

Recommended Use:	Active ingredient for biofertilizer for cereals
Further Information:	Product classified and safety datasheet produced according to GHS directives.

*The information contained in this SDS was compiled using the latest and most reliable information available to BioSolutions. The data is based on the current expertise and presents the health, safety and environmental aspects of this product. They form no guarantee of product properties. Recommendations presented in this SDS apply only to the product as originally supplied. If other ingredients are used in the processing of this product, the recommendations for the use and handling of that product must be verified.*

*This document contains important information in order to ensure the safe storage, handling and use of this product. The information in this document must be brought to the attention of the safety/health/environmental advisor within your organisation. The information in this document must be made known to everyone whose work involves this product.*