Cell-Tech® Granular Pea and Lentil
MONSANTO Company - Safety Data Sheet
according to the revised Workplace Hazardous Materials Information System (WHMIS) Regulations SOR/2015-17
Date of issue: 10-MAR-2016 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product form: Mixture
Trade name: Cell-Tech® Granular nitrogen-fixing inoculant for pea and lentil

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: *Rhizobium Inoculant*

1.3. Details of the supplier of the safety data sheet
Monsanto Canada, 900 - One Research Road, Winnipeg, MB, R3T 6E3
Telephone: 204-986-1000 or 800-667-4644 Fax: 204-488-9599
E-mail: safety.datasheet@monsanto.com

1.4. Emergency telephone number
Emergency number: FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT
Call CANUTEC – Day or Night: 613-996-6666 (collect calls accepted) or MONSANTO: 314-694-4000 (collect calls accepted).
FOR MEDICAL EMERGENCY - Day or Night: +1 (314) 694-4000 (collect calls accepted).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
GHS-US classification
Comb. Dust
Full text of H-statements: see section 16

2.2. Label elements
GHS-US labelling
Signal word (GHS-US): Warning
Hazard statements (GHS-US): May form combustible dust concentrations in air

2.3. Other hazards
No additional information available

2.4. Unknown acute toxicity (GHS-US)
Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance
Not applicable

3.2. Mixture
Active ingredients:
Pure culture of *Rhizobium leguminosarum* bacterium 0.22% w/w

This mixture does not contain any substances to be mentioned according to the criteria of Parts 7 & 8 of WHMIS Regulations SOR/2015-17.

SECTION 4: First aid measures

4.1. Description of first aid measures
First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation: Allow breathing of fresh air. Allow the victim to rest. Encourage coughing. In all cases of doubt, or when symptoms persist, seek medical advice.
First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
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First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel. Obtain emergency medical attention. Give water to drink if victim completely conscious/alert.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/Injuries: Not expected to present a significant hazard under anticipated conditions of normal use. This product contains beneficial microorganisms. Monsanto exclusively uses non-pathogenic beneficial microorganisms that are considered to be non-allergenic, non-irritating and non-sensitizing when used as directed. Exposure to very high levels of airborne microbial spores may result in very rare respiratory impairments or cause an allergic reaction in sensitized individuals.
Symptoms/Injuries after inhalation: Possible respiratory damage following repeated or prolonged inhalation.
Symptoms/Injuries after eye contact: Contact may cause eye irritation.
Symptoms/Injuries after ingestion: Small amounts swallowed incidental to industrial handling are not likely to cause injury. On ingestion in large quantities: stomach pain and discomfort.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.2. Special hazards arising from the substance or mixture
Explosion hazard: Accumulation of airborne dusts may present an explosion hazard in the presence of an ignition source.

5.3. Advice for firefighters
Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific methods: Caution, burning may continue inside bag after surface is out. Break bag to separate pile to assure that the fire is extinguished. Take care to keep dusting to a minimum.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Equip cleanup crew with proper protection.
Emergency procedures: Ventilate area.

6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials. Collect all waste in suitable and labelled containers and dispose according to local legislation.

6.4. Reference to other sections
No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide adequate ventilation. Avoid dust formation. Avoid breathing dust. Avoid contact with eyes, skin, and clothing.

Hygiene measures: Wash hands thoroughly after handling. Handle in accordance with good industrial hygiene and safety practices.
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### 7.2. Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Storage conditions</th>
<th>Keep only in the original container in a cool, well ventilated place away from: Direct sunlight, Heat sources, Extremely high or low temperatures. Keep container closed when not in use. Keep away from food, drink and animal feeding stuffs.</th>
</tr>
</thead>
</table>

### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

<table>
<thead>
<tr>
<th>Calcium carbonate (1317-65-3)</th>
<th>ACGIH</th>
<th>ACGIH TWA (mg/m³)</th>
<th>10 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite (7782-42-5)</td>
<td>ACGIH</td>
<td>ACGIH TWA (mg/m³)</td>
<td>2 mg/m³ (all forms except graphite fibers-respirable fraction)</td>
</tr>
</tbody>
</table>

#### 8.2. Exposure controls

**Appropriate engineering controls**

Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

**Personal protective equipment**


- **Hand protection**: Wear protective gloves.
- **Eye protection**: Chemical goggles or safety glasses.
- **Skin and body protection**: Wear suitable protective clothing.
- **Respiratory protection**: Where exposure through inhalation may occur from use, approved respiratory protection equipment is recommended.
- **Other information**: Do not eat, drink or smoke during use.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Dark brown solid.</td>
</tr>
<tr>
<td>Colour</td>
<td>Dark brown</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight smoky odour</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Water: Not soluble</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
</tbody>
</table>
## Cell-Tech® Granular Pea and Lentil
### Safety Data Sheet

**according to Workplace Hazardous Materials Information System (WHMIS)**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### 9.2. Other information

No additional information available.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Stable.

#### 10.2. Chemical stability

Stable.

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

Direct sunlight. Heat sources. Extremely high or low temperatures.

#### 10.5. Incompatible materials


#### 10.6. Hazardous decomposition products


### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Not classified (Based on available data, the classification criteria are not met)</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not classified (Based on available data, the classification criteria are not met)</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Not classified (Based on available data, the classification criteria are not met)</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>Not classified (Based on available data, the classification criteria are not met)</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified (Based on available data, the classification criteria are not met)</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified (Based on available data, the classification criteria are not met)</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified (Based on available data, the classification criteria are not met)</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Not classified (Based on available data, the classification criteria are not met)</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Not classified (Based on available data, the classification criteria are not met)</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified (Based on available data, the classification criteria are not met)</td>
</tr>
<tr>
<td>Symptoms/injuries after inhalation</td>
<td>Possible respiratory damage following repeated or prolonged inhalation.</td>
</tr>
<tr>
<td>Symptoms/injuries after eye contact</td>
<td>Contact may cause eye irritation.</td>
</tr>
<tr>
<td>Symptoms/injuries after ingestion</td>
<td>Small amounts swallowed incidental to industrial handling are not likely to cause injury. On ingestion in large quantities: stomach pain and discomfort.</td>
</tr>
</tbody>
</table>
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SECTION 12: Ecological information

12.1. Toxicity
No additional information available

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Cell-Tech® Granular Pea and Lentil</th>
<th>Persistence and degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not established.</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Cell-Tech® Granular Pea and Lentil</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not established.</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects

<table>
<thead>
<tr>
<th>Effect on ozone layer</th>
<th>No additional information available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect on the global warming</td>
<td>No additional information available</td>
</tr>
<tr>
<td>Other information</td>
<td>Avoid release to the environment.</td>
</tr>
</tbody>
</table>

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| Waste disposal recommendations | Dispose in a safe manner in accordance with local/national regulations. |
| Ecology - waste materials      | Avoid release to the environment. |

SECTION 14: Transport information

In accordance with DOT
Not regulated for transport

Additional information

| Other information | No supplementary information available. |

ADR
No additional information available

Transport by sea
No additional information available

Air transport
No additional information available

SECTION 15: Regulatory information

15.1 National regulations

This material is considered hazardous according to the criteria of criteria of Parts 7 & 8 of WHMIS Regulations SOR/2015-17

SECTION 16: Other information

Abbreviations and acronyms:
ACGIH (American Conference of Government Industrial Hygienists), CAS - Chemical Abstracts Service, GHS - Globally Harmonised System, TWA - Time Weighted Average.

Other information:
None.

Full text of H-statements:

<table>
<thead>
<tr>
<th>Comb. Dust</th>
<th>Combustible Dust</th>
</tr>
</thead>
<tbody>
<tr>
<td>H232</td>
<td>May form combustible dust concentrations in air</td>
</tr>
</tbody>
</table>

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NFPA health hazard
: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard
: 1 - Must be preheated before ignition can occur.

NFPA reactivity
: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

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