Section 1: Identification

Product Name: FourStar® Bti CRG Multi-Brood Controlled Release Granule

Product Code: 100515259; 100515273; 100516237; EPA Reg. No.: 85685-4

Chemical Category: Bacillus thuringiensis subsp. Israelensis Serotype H14

Product Description: Tan granule.

Recommended use: Multi-brood microbial insecticide granule

Restrictions on use: Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

Details of the supplier of the safety data sheet

Manufacturer: FourStar® Microbial Products, LLC
1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173
United States
www.centralmosquitocontrol.com

Emergency telephone number

Manufacturer (Transportation): 1-800-424-9300 - CHEMTREC

Manufacturer: 1-888-914-2082

Manufacturer (Transportation): 1-703-527-3887 - CHEMTREC - Outside US Collect Calls Accepted

Section 2: Hazard Identification

United States (US)
According to OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012: Carcinogenicity 2 - H351
Skin Sensitization 1 - H317
Specific Target Organ Toxicity Repeated Exposure 1 - H372
Label elements
OSHA HCS 2012

WARNING

Hazard statements
- May cause damage to organs through prolonged or repeated exposure Inhalation - H373
  Suspected of causing cancer. - H351
  Harmful if inhaled - H332
  May cause an allergic skin reaction - H317

Precautionary statements
Prevention
- Do not breathe dust. - P260
  Do not handle until all safety precautions have been read and understood. - P202
  Obtain special instructions before use. - P201
  Wear protective gloves/protective clothing/eye protection/face protection. - P280

Response
- Get medical advice/attention if you feel unwell. - P314
  IF exposed or concerned: Get medical advice/attention. - P308+P313

Storage/Disposal
- Store locked up. - P405
  Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501
  Refer to Section 13 - Disposal Considerations

Other hazards
OSHA HCS 2012
- No data available

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance according to United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Mixtures

<table>
<thead>
<tr>
<th>Composition</th>
<th>Identifiers</th>
<th>%</th>
<th>Classifications According to Regulation/Directive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacillus thuringiensis</td>
<td>CAS:68038-71-1</td>
<td>10%</td>
<td>OSHA HCS 2012: Acute toxicity - Inhal. Cat. 4; Skin Sens. Cat. 1</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Proprietary</td>
<td>70% TO 85%</td>
<td>OSHA HCS 2012: Carcinogen Cat. 2; STOT RE 1 - Resp.</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Proprietary</td>
<td>&lt; 1%</td>
<td>OSHA HCS 2012: Skin Irrit. 2; Eye Irrit. 2; Skin sens Cat. 1; STOT SE 3(Resp.)</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Proprietary</td>
<td>&lt; 1%</td>
<td>OSHA HCS 2012: Not Classified- Criteria not met</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Proprietary</td>
<td>1% TO 10%</td>
<td>OSHA HCS 2012: Not Classified- Criteria not met</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Proprietary</td>
<td>10% TO 20%</td>
<td>OSHA HCS 2012: Comb. dust</td>
</tr>
</tbody>
</table>
Section 4: First-Aid Measures

Description of first aid measures

Inhalation • Move victim to fresh air. If not breathing, give artificial respiration. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin • Remove contaminated clothing and shoes. Rinse skin immediately with plenty of water for 15-20 minutes. Call a physician or poison control center.

Eye • Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Call a physician or poison control center.

Ingestion • Get medical attention immediately if symptoms occur.

Most important symptoms and effects, both acute and delayed

• Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media • In case of fire use media as appropriate for surrounding fire.

Unsuitable Extinguishing Media • None known.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Material is non-combustible and is not expected to pose a fire or explosion hazard.

Hazardous Combustion Products • No data available

Advice for firefighters • Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions • Avoid contact with skin, eyes, and clothing. Wear appropriate personal protective equipment, avoid direct contact. Remove clothing and wash thoroughly before use.

Emergency Procedures • Use normal clean up procedures.

Environmental precautions • Follow best practice for site management and disposal of waste. Avoid run off to waterways and sewers.

Methods and material for containment and cleaning up

Containment/Clean-up Measures • Use appropriate Personal Protective Equipment (PPE). Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust.

Section 7 - Handling and Storage
Precautions for safe handling

Handling • Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Use good safety and industrial hygiene practices. Avoid contact with skin and eyes. Use only with adequate ventilation. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Avoid breathing dust.

Conditions for safe storage, including any incompatibilities

Storage • Store closed containers in a cool dry place. Do not contaminate water, food or feed by storage or disposal. Store in a well-ventilated place. Keep container tightly closed.

Section 8 - Exposure Controls/Personal Protection

Control parameters

<table>
<thead>
<tr>
<th>Exposure Limits/Guidelines</th>
<th>Result</th>
<th>ACGIH</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary (Proprietary)</td>
<td>TWAs</td>
<td>0.025 mg/m3 TWA (respirable fraction)</td>
<td>0.05 mg/m3 TWA (respirable dust)</td>
</tr>
</tbody>
</table>

Exposure Control Notations

ACGIH
• Proprietary : Carcinogens: (A2 - Suspected Human Carcinogen)

Exposure Limits Supplemental

OSHA
• Proprietary : Mineral Dusts: (30)/(%SiO2 + 2) mg/m3 TWA, total dust; (250)/(%SiO2 + 5) mppcf TWA, respirable fraction; (10)/(%SiO2 + 2) mg/m3 TWA, respirable fraction)

ACGIH
• Proprietary : TLV Basis - Critical Effects: (lung cancer; pulmonary fibrosis)

Exposure controls

Engineering Measures/Controls
• Use adequate ventilation to remove vapors (fumes, dust etc)

Personal Protective Equipment

Pictograms

Respiratory
• In case of insufficient ventilation, wear suitable respiratory equipment. Not usually required. However, mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95.

Eye/Face
• Wear dust goggles.

Hands
• Wear appropriate gloves (nitrile rubber)

Skin/Body
• Wear protective gloves (nitrile rubber) and clothing to minimize skin contact.

General Industrial Hygiene Considerations
• Wash thoroughly with soap and water after handling.

Environmental Exposure
• Refer to Section 13 - Disposal Considerations.
### Section 9 - Physical and Chemical Properties

#### Information on Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Material Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Form</strong></td>
</tr>
<tr>
<td><strong>Appearance/Description</strong></td>
</tr>
<tr>
<td><strong>Color</strong></td>
</tr>
<tr>
<td><strong>Odor</strong></td>
</tr>
<tr>
<td><strong>Taste</strong></td>
</tr>
<tr>
<td><strong>Particulate Type</strong></td>
</tr>
<tr>
<td><strong>Physical and Chemical Properties</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boiling Point</strong></td>
</tr>
<tr>
<td><strong>Melting Point</strong></td>
</tr>
<tr>
<td><strong>Decomposition Temperature</strong></td>
</tr>
<tr>
<td><strong>Specific Gravity/Relative Density</strong></td>
</tr>
<tr>
<td><strong>Physical and Chemical Properties</strong></td>
</tr>
<tr>
<td><strong>Physical and Chemical Properties</strong></td>
</tr>
<tr>
<td><strong>Specific Gravity/Relative Density</strong></td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
</tr>
<tr>
<td><strong>Vapor Density</strong></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flash Pressure</strong></td>
</tr>
<tr>
<td><strong>Vapor Pressure</strong></td>
</tr>
<tr>
<td><strong>Evaporation Rate</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flammability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flash Point</strong></td>
</tr>
<tr>
<td><strong>UEL</strong></td>
</tr>
<tr>
<td><strong>LEL</strong></td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Octanol/Water Partition coefficient</strong></td>
</tr>
</tbody>
</table>

### Section 10: Stability and Reactivity

**Reactivity**

- Non-reactive

**Chemical stability**

- Stable

**Possibility of hazardous reactions**

- Hazardous polymerization will not occur.

**Conditions to avoid**

- None known.

**Incompatible materials**

- Alkalinity inactivates product. Avoid mixing with hydrogen fluoride.

**Hazardous decomposition products**

- No data available.
### Section 11 - Toxicological Information

#### Information on toxicological effects

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary (70% TO 85%)</td>
<td>Proprietary</td>
<td>Acute Toxicity: orl-rat TDLo:120 gm/kg;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tumorigen/Carcinogen: ihl-rat TCLo:50 mg/m3/6H/71W-I</td>
</tr>
<tr>
<td>Proprietary (10% TO 20%)</td>
<td>Proprietary</td>
<td>Acute Toxicity: orl-rat LD50:&gt;8 gm/kg</td>
</tr>
<tr>
<td>Proprietary (&lt; 1%)</td>
<td>Proprietary</td>
<td>Acute Toxicity: orl-rat LD50:&gt;6 gm/kg;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reproductive: orl-rat TDLo:2500 mg/kg (1-22D preg)</td>
</tr>
<tr>
<td>Bacillus thuringiensis (10%)</td>
<td>68038-71-1</td>
<td>Acute Toxicity: Ingestion/Oral-Rat LD50 • 5000 mg/kg; Inhalation-Rat LC50 • 2.04 mg/L 4 Hour(s); Skin-Rabbit LD50 • 5000 mg/kg; Irritation: Eye-Rabbit • Mild irritation; Skin-Rabbit • Mild irritation</td>
</tr>
</tbody>
</table>

#### GHS Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>OSHA HCS 2012•Acute Toxicity - Dermal - Classification criteria not met; Acute Toxicity - Inhalation - Classification criteria not met; Acute Toxicity - Oral - Classification criteria not met</td>
</tr>
<tr>
<td>Aspiration Hazard</td>
<td>OSHA HCS 2012•Classification criteria not met</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>OSHA HCS 2012•Carcinogenicity 2</td>
</tr>
<tr>
<td>Germ Cell Mutagenicity</td>
<td>OSHA HCS 2012•Classification criteria not met</td>
</tr>
<tr>
<td>Skin corrosion/Irritation</td>
<td>OSHA HCS 2012•Classification criteria not met</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>OSHA HCS 2012•Skin Sensitizer 1</td>
</tr>
<tr>
<td>STOT-RE</td>
<td>OSHA HCS 2012•Specific Target Organ Toxicity Repeated Exposure 1</td>
</tr>
<tr>
<td>STOT-SE</td>
<td>OSHA HCS 2012•Classification criteria not met</td>
</tr>
<tr>
<td>Toxicity for Reproduction</td>
<td>OSHA HCS 2012•Classification criteria not met</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>OSHA HCS 2012•Classification criteria not met</td>
</tr>
<tr>
<td>Serious eye damage/Irritation</td>
<td>OSHA HCS 2012•Classification criteria not met</td>
</tr>
</tbody>
</table>

#### Route(s) of entry/exposure

- Inhalation, skin or eye contact, and ingestion.

#### Potential Health Effects

**Inhalation**

**Acute (Immediate)**
- Under normal conditions of use, no health effects are expected.

**Chronic (Delayed)**
- Repeated and prolonged exposure may be harmful. May cause damage to organs through prolonged or repeated exposure. Excessive inhalation of crystalline silica (quartz) may cause lung injury.

**Skin**

**Acute (Immediate)**
- May cause mild irritation.

**Chronic (Delayed)**
- No data available.

**Eye**

**Acute (Immediate)**
- May cause moderate irritation.

**Chronic (Delayed)**
- No data available.

**Ingestion**

**Acute (Immediate)**
- Under normal conditions of use, no health effects are expected.

**Chronic (Delayed)**
- No data available
Other

Chronic (Delayed) • Repeated and prolonged exposure may cause sensitization.

Carcinogenic Effects • Repeated and prolonged exposure may cause cancer.

Carcinogenic Effects

<table>
<thead>
<tr>
<th>CAS</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary</td>
<td>Proprietary</td>
<td>Group 1-Carcinogenic</td>
</tr>
</tbody>
</table>

Section 12 - Ecological Information

Toxicity

• No data available

Persistence and degradability

• No data available.

Bioaccumulative potential

• No data available.

Mobility in Soil

• No data available.

Other adverse effects

Potential Environmental Effects

• Do not contaminate water when disposing or equipment washwaters or rinsate. Do not apply to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste • Do not contaminate water, food, or feed by storage disposal. Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Do not contaminate water when disposing of equipment washwaters or rinsate.

Packaging waste • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Completely empty bag, then dispose of empty bag in trash. Do not reuse container.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN proper shipping name</th>
<th>Transport class(es)</th>
<th>hazard</th>
<th>Packing group</th>
<th>Environmental hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>NDA</td>
<td>Not Regulated</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
</tr>
<tr>
<td>IMO/IMDG</td>
<td>NDA</td>
<td>Not regulated</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
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<tr>
<td>IATA/ICAO</td>
<td>NDA</td>
<td>Not regulated</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
</tr>
</tbody>
</table>

Special precautions for user • No data available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No data available

Other information

Preparation Date: 3/14/14
Revision Date: new
Page 7 of 9
Format: GHS Language: English (US)
OSHA HCS 2012
Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Chronic

FIFRA – Pesticide Labeling

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION

Hazard Statements
• Keep out of reach of children.

Precautionary Statements
• Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Remove clothing and wash thoroughly before use. Mixers/loaders and applicators not in enclosed cabs or aircraft must wear gloves and a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

First Aid
• IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth if possible. Call poison control center or doctor for treatment advice.
• IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
• IF ON SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
• HOT LINE NUMBER: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.

Environmental Hazards
• Do not contaminate water when disposing or equipment washwaters or rinsate. Do not apply to treated, finish drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.
• Do not contaminate water, food or feed by storage or disposal. PESTICIDE STORAGE: Store in a cool, dry place. PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments by industry). CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Completely empty bad into application equipment by shaking and tapping sides and bottom to loosen clinging particles. Then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.
### Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary</td>
<td>Proprietary</td>
<td>Yes</td>
</tr>
<tr>
<td>Bacillus thuringiensis</td>
<td>68038-71-1</td>
<td>Yes</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Proprietary</td>
<td>Yes</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Proprietary</td>
<td>Yes</td>
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<tr>
<td>Proprietary</td>
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<td>Yes</td>
</tr>
<tr>
<td>Proprietary</td>
<td>Proprietary</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### United States - California

**Environment**

- **U.S. - California - Proposition 65 - Carcinogens List**
  - Proprietary
  - Proprietary
  - Proprietary
  - Proprietary
  - Bacillus thuringiensis

### Section 16 - Other Information

**Last Revision Date**
- 3/14/14

**Preparation Date**
- 3/14/14

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