



# Safety Data Sheet

## Section 01 - Product And Company Identification

|                                     |                                                                                                                                    |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Product Identifier                  | Bio-Systems B250                                                                                                                   |
| Other Means of Identification       | None                                                                                                                               |
| Product Use and Restrictions on Use | Specially-formulated range of adapted, high-performance microorganisms for use in biological wastewater treatment of dairy wastes. |
| Initial Supplier Identifier         | ClearTech Industries Inc.<br>1500 Quebec Avenue<br>Saskatoon, SK. Canada<br>S7K 1V7                                                |
| Prepared By                         | ClearTech Industries Inc. Technical Writer<br>Phone: 1 (800) 387-7503                                                              |
| 24-Hour Emergency Phone             | Phone: 1 (306) 664 – 2522                                                                                                          |

## Section 02 - Hazard Identification

### GHS-Classification

This product has been assessed in accordance with the Hazardous Products Regulations and is not classified as a hazardous substance or mixture.

## Section 03 - Composition / Information on Ingredients

| Chemical Name                   | CAS Number    | Weight %      | Unique Identifiers |
|---------------------------------|---------------|---------------|--------------------|
| Non-pathogenic bacteria culture | Not Available | Not Available |                    |

## Section 04 - First Aid Measures

|                           |                                                                                                                                                                                                                                                    |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation                | If symptoms are experienced remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention.                                                                 |
| Skin Contact / Absorption | Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.                                                                                                                     |
| Eye Contact               | Contact lenses should never be worn when working with this product. Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. If irritation persists, seek medical attention. |
| Ingestion                 | Do not induce vomiting. Wash out mouth with water. Drink water if person is conscious. Seek medical attention.                                                                                                                                     |
| Additional Information    | Call physician if symptoms persist.                                                                                                                                                                                                                |

## Section 05 - Fire Fighting Measures

|                                |                                                     |
|--------------------------------|-----------------------------------------------------|
| Suitable Extinguishing Media   | Use water spray extinguisher for surrounding fires. |
| Unsuitable Extinguishing Media | Not Available                                       |

**Specific Hazards Arising From the Chemical** Not Available

**Special Protective Equipment and Precautions for Fire-Fighters** Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

**Further Information** Not Available

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## Section 06 - Accidental Release Measures

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**Personal Precautions / Protective Equipment / Emergency Procedures** Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so.

**Environmental Precautions** Prevent material from entering sewers.

**Methods and Materials for Containment and Cleaning Up** Vacuum or sweep up spilled material avoiding generation of dust. Place spilled material into labelled containers for future disposal. Wash any residues with water.

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## Section 07 - Handling and Storage

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**Precautions for Safe Handling** Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.

**Conditions for Safe Storage** Store in a cool dry place with a temperature between 5-40°C. Do not freeze. Ensure packaged containers remain sealed.

**Incompatibilities** Acids or alkaline products may inactivate biological cultures.

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## Section 08 - Exposure Controls and Personal Protection

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### Exposure Limit(s)

| Component    | Regulation    | Type of Listing | Value         |
|--------------|---------------|-----------------|---------------|
| B250 Enzymes | Not Available | Not Available   | Not Available |

### Engineering Control(s)

**Ventilation Requirements** Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.

**Other** Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

### Protective Equipment

**Eyes/Face** Chemical safety glasses with side shield should be worn while product is being handled.

**Hand Protection** Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

**Skin and Body Protection** Body suite, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

Impervious boots of chemically resistant material should be worn at all times. No special footwear is required other than what is mandated at place of work.

|                               |                                                                                                                                                         |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Respiratory Protection</b> | Respiratory protection is not normally required. If use creates dust formations, then a NIOSH approved respirator with a dust cartridge is recommended. |
| <b>Thermal Hazards</b>        | Not Available                                                                                                                                           |

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## Section 09 - Physical and Chemical Properties

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### Appearance

|                        |                              |
|------------------------|------------------------------|
| <b>Physical State</b>  | Free-flowing granular powder |
| <b>Colour</b>          | Brown or blue                |
| <b>Odour</b>           | Yeast like odour             |
| <b>Odour Threshold</b> | Not Available                |

### Property

|                                                |                                                                                       |
|------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>pH</b>                                      | 6.0-7.0 when mixed with water                                                         |
| <b>Melting Point/Freezing Point</b>            | Not Available                                                                         |
| <b>Initial Boiling Point and Boiling Range</b> | Not Available                                                                         |
| <b>Flash Point</b>                             | Not Applicable                                                                        |
| <b>Evaporation Rate</b>                        | Not Available                                                                         |
| <b>Flammability</b>                            | Non-Flammable                                                                         |
| <b>Upper Flammable Limit</b>                   | Not Available                                                                         |
| <b>Lower Flammable Limit</b>                   | Not Available                                                                         |
| <b>Vapour Pressure (mm Hg, 20°C)</b>           | Not Available                                                                         |
| <b>Vapour Density (Air=1)</b>                  | Not Available                                                                         |
| <b>Relative Density</b>                        | 0.6-0.8 g/cm <sup>3</sup>                                                             |
| <b>Solubility(ies)</b>                         | Moderate, disperses in water                                                          |
| <b>Partition Coefficient: n-octanol/water</b>  | Not Available                                                                         |
| <b>Auto-ignition Temperature</b>               | Not Available                                                                         |
| <b>Decomposition Temperature</b>               | Not Available                                                                         |
| <b>Viscosity</b>                               | Not Available                                                                         |
| <b>Explosive Properties</b>                    | Large dust accumulations may contain an explosion type hazard, similar to grain dust. |
| <b>Specific Gravity (Water=1)</b>              | Not Available                                                                         |
| <b>% Volatiles by Volume</b>                   | Not Available                                                                         |

Formula Not Available

Molecular Weight Not Available

Section 10 - Stability and Reactivity

Reactivity Not Available

Stability Product is stable

Possibility of Hazardous Reactions Not Available

Conditions to Avoid Not Available

Incompatible Materials Acids or alkaline products may inactivate biological cultures.

Hazardous Decomposition Products Oxides of carbon

Section 11 - Toxicological Information

Acute Toxicity

| Component    | Oral LD <sub>50</sub> | Dermal LD <sub>50</sub> | Inhalation LC <sub>50</sub> |
|--------------|-----------------------|-------------------------|-----------------------------|
| B250 Enzymes | Not Available         | Not Available           | Not Available               |

Chronic Toxicity – Carcinogenicity

| Component    | IARC                                                                                                                                               |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| B250 Enzymes | None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen. |

Skin Corrosion/Irritation Mild irritant with excessive contact.

Ingestion Considered non-toxic but may cause nausea or diarrhea and irritation to gastrointestinal tract.

Inhalation May cause irritation if dust is inhaled.

Serious Eye Damage/Irritation Mild irritant with excessive contact.

Respiratory or Skin Sensitization Not Available

Germ Cell Mutagenicity Not Available

Reproductive Toxicity Not Available

STOT-Single Exposure Mild irritation to mucous membranes with excessive contact.

STOT-Repeated Exposure Not Available

Aspiration Hazard Not Available

Synergistic Materials Not Available

Section 12 – Ecological Information

Ecotoxicity

| Component    | Toxicity to Algae | Toxicity to Fish | Toxicity to Daphnia and Other Aquatic Invertebrates |
|--------------|-------------------|------------------|-----------------------------------------------------|
| B250 Enzymes | Not Available     | Not Available    | Not Available                                       |

|                              |                                                                                            |
|------------------------------|--------------------------------------------------------------------------------------------|
| <b>Biodegradability</b>      | Product is biodegradable                                                                   |
| <b>Bioaccumulation</b>       | Not Available                                                                              |
| <b>Mobility</b>              | Not Available                                                                              |
| <b>Other Adverse Effects</b> | Minimal impact to the environment as bacterial cultures are naturally occurring organisms. |

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## Section 13 – Disposal Considerations

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|                                            |                                                                                                                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Waste From Residues/Unused Products</b> | Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act. |
| <b>Contaminated Packaging</b>              | Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act. |

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## Section 14 – Transport Information

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|                                   |                                                                                |
|-----------------------------------|--------------------------------------------------------------------------------|
| <b>UN Number</b>                  | Not Regulated                                                                  |
| <b>UN Proper Shipping Name</b>    | Not Regulated                                                                  |
| <b>Transport Hazard Class(es)</b> | Not Regulated                                                                  |
| <b>Packaging Group</b>            | Not Regulated                                                                  |
| <b>Environmental Hazards</b>      | Not listed as a marine pollutant under Canadian TDG Regulations, schedule III. |
| <b>Special Precautions</b>        | Not Available                                                                  |
| <b>Transport in Bulk</b>          | Not Available                                                                  |

### TDG

|              |                                                                                                                                                                    |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Other</b> | Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position. |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**TDG PRODUCT CLASSIFICATION:** This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

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## Section 15 – Regulatory Information

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**NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.**

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## Section 16 – Other Information

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|                         |                 |
|-------------------------|-----------------|
| <b>Preparation Date</b> | August 17, 2015 |
|-------------------------|-----------------|

**Note:** The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

### **Attention: Receiver of the chemical goods / SDS coordinator**

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution® initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

**References:**

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA

**ClearTech Industries Inc. - Locations**

**Corporate Head Office: 1500 Quebec Avenue, Saskatoon, SK, S7K 1V7**

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**24 Hour Emergency Number - All Locations – 1(306) 664-2522**