MATERIAL SAFETY DATA SHEET (MSDS)

Product Name: Shield Insecta

Product Code: SH-INS-01

Branding: Crop Shield

Updated From: Bactallion TerraVigor / Protector I

SECTION 1: Identification

Product Name: Shield Insecta

Product Code: SH-INS-01

Recommended Use: Microbial insect-suppression biostimulant for agricultural and horticultural crops

Supplier: Bactallion (Pty) Ltd

Emergency Contact: +27 (0)82 903 3658

“Product name: Bactallion TerraVigor” (Updated to Shield Insecta)

SECTION 2: Hazard Identification

- Non-hazardous under GHS classification.
- Not classified as toxic, corrosive, or harmful.
- May cause mild irritation if inhaled or if contact occurs with eyes.

Precautionary Statements:

- Avoid inhaling dust.
- Avoid contact with eyes.
- Wash hands after handling.

SECTION 3: Composition / Ingredients

A proprietary microbial insect-suppression blend including:

- *Beauveria bassiana*

- *Metarhizium anisopliae*
- *Bacillus thuringiensis*
- *Trichoderma harzianum*
- *Rhodopseudomonas palustris*

Carrier: Maltodextrin Colour blend: Food-grade No hazardous ingredients at reportable levels.

SECTION 4: First Aid Measures

Eye Contact: Flush with clean water for 15 minutes. **Skin Contact:** Wash with soap and water. **Inhalation:** Move to fresh air. **Ingestion:** Rinse mouth; seek medical attention if discomfort persists.

SECTION 5: Fire Fighting Measures

- Non-flammable.
- Use water spray, foam, dry chemical, or CO_2.
- Firefighters should avoid inhaling combustion fumes.

SECTION 6: Accidental Release Measures

- Avoid creating dust.
- Sweep up and place in a sealed container.
- Wash area with water.

SECTION 7: Handling & Storage

Handling:

- Avoid dust formation.
- Use in well-ventilated areas.

Storage:

- Store in a cool, dry place.
- Keep sealed when not in use.
- Protect from direct sunlight and moisture.

SECTION 8: Exposure Controls / PPE

- No special PPE required.

- Optional: dust mask, gloves, safety glasses.

SECTION 9: Physical & Chemical Properties

Appearance: Light brown powder **Odour:** Mild, earthy **pH:** ~5.7 (10% solution) **Solubility:** Water-soluble **Density:** ~1.34 g/cm³

SECTION 10: Stability & Reactivity

- Stable under normal conditions.
- Avoid moisture exposure.
- No hazardous decomposition expected.

SECTION 11: Toxicological Information

- Non-toxic microbial formulation.
- No known chronic health effects.
- May cause mild mechanical eye irritation.

SECTION 12: Ecological Information

- Inherently biodegradable (OECD 302B).
- Microbes are naturally occurring soil organisms.
- No expected bioaccumulation.
- Supports natural insect suppression and crop resilience.

SECTION 13: Disposal Considerations

- Dispose according to local regulations.
- Packaging may be recycled if clean.

SECTION 14: Transport Information

- Not regulated as a dangerous good.
- No special transport requirements.

SECTION 15: Regulatory Information

- Complies with agricultural biostimulant regulations.
- Not classified as hazardous under GHS.

SECTION 16: Other Information

Prepared by: Bactallion (Pty) Ltd

Branding: **Crop Shield**

Updated: October 2026

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