

Companion Biological Inoculant

Section 1 -- IDENTIFICATION

1.1. Product Identifier

Product name: Companion Biological Inoculant

Synonym: Biological inoculant, bactericide

1.2. Recommended Use / Restrictions

Identified Uses: For the prevention, control and suppression of soil and foliar diseases. Activates ISR

Restrictions: N/A – Please see product label

1.3. Supplier Details

Company: Fernland Agencies Pty Ltd
31-35 Paulger Flat Road
YANDINA QLD 4561
+61 7 5454 8800
sales@fernland.com.au

1.4. Emergency Telephone Number

Emergency Telephone: 13 11 26 (Australian Poisons Information Hotline)

Section 2 -- HAZARD(S) IDENTIFICATION

2.1. Classification of substance or mixture

Physical Hazards: This product is not considered hazardous under the criteria of WHS and ADG requirements.

Health Hazards (Potential Effects): Micro-Organisms may have the potential to provoke sensitizing reactions in some individuals

Environmental Hazards: Not Classified

2.2. Label Elements

Pictogram: N/A

Signal Word: N/A

Hazard Statements: N/A

Precautionary Statements: Please see product label

2.3. Other Hazards

This product does not contain any substance classified as PBT or vPvB

NFPA Ratings

Health:	1	Slightly hazardous
Flammability:	0	Will not burn
Reactivity:	0	Stable
Specific Hazard:	N/A	Not applicable

HMIS Ratings

Health:	0	Minimal hazard
Flammability:	0	Minimal hazard
Reactivity:	0	Minimal hazard
Personal (PPE):	B	Goggles, Gloves



Health	<i>minimal</i>	0
Flammability	<i>minimal</i>	0
Physical Hazard	<i>minimal</i>	0
Personal Protection		B

Section 3 -- COMPOSITION/INFORMATION ON INGREDIENTS
3.2. Mixtures

Chemical Name	CAS Registry No.	Concentration % by Weight	Classification
Bacillus subtilis, strain GB03:	68038-70-0	0.03%	N/A
Inert ingredients (confidential):	-	0.97%	N/A

Section 4 -- FIRST-AID MEASURES
4.1. Description of first-aid measures

Inhalation:	Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if symptoms are severe or persist.
Ingestion:	Never give anything by mouth to an unconscious person. Do not induce vomiting, unless instructed by a healthcare professional. Rinse mouth thoroughly with water. Get medical attention if any symptoms develop.
Skin Contact:	Remove affected person from source of contamination. Take off immediately all contaminated clothing and wash it before reuse. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
Eye Contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

4.2. Most important symptoms and effect, both acute and delayed

Inhalation:	May cause respiratory irritation. There may be irritation of the throat with a feeling of tightness in the chest.
Ingestion:	Ingestion may cause nausea, vomiting and stomach and digestive irritation. There may be soreness and redness of the mouth and throat.
Skin Contact:	Skin contact may cause redness and irritation. Prolonged or repeated skin contact can result in the development of allergy-like skin reactions (e.g., dermatitis, rashes)
Eye Contact:	There may be irritation and redness. Profuse watering of the eyes.

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

Notes for doctor:	No specific recommendations. If in doubt, get medical attention promptly. Treatment may vary with the condition of victim and specifics of incident.
Specific treatments:	Eye bathing equipment should be available on the premises.

Section 5 -- FIREFIGHTING MEASURES
5.1. Extinguishing media

Suitable extinguishing media:	The product is not flammable. Use fire-extinguishing media suitable for the surrounding environment. The substance itself does not burn.
Unsuitable extinguishing media:	N/A

Environmental Hazards:
5.2. Special hazards arising from the substance or mixture
Hazardous combustion products: N/A

5.3. Advice for firefighters
Protective actions during firefighting:

No specific firefighting precautions known. Irritant, non-flammable, water soluble. Do not inhale gases created by fire. Do not allow run-off from firefighting to enter drains or watercourses.

Special protective equipment for firefighters:

Wear positive-pressure self-contained breathing apparatus (SCBA) eye protection and appropriate protective clothing.

Section 6 -- ACCIDENTAL RELEASE MEASURES
6.1. Personal precautions, protective equipment and emergency procedures
Personal precautions: Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions
Environmental precautions: Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleanup
Methods for cleaning up:

Stop leak if possible without risk. Contain and absorb spillage with sand, earth or other noncombustible material. Transfer to a container for disposal. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections
Reference to other sections: For personal protection, see Section 8. For waste disposal, see Section 13.

Section 7 -- HANDLING AND STORAGE
7.1. Precautions for Safe Handling
Using precautions:

Provide adequate ventilation. Avoid spilling. Avoid contact with skin and eyes. Wash hands thoroughly after handling.

Advice on general occupational hygiene:

Do not eat, drink or smoke when using this product. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for Safe Storage, Including Any Incompatibilities
Storage precautions:

Store in tightly closed original container in a dry, cool and well-ventilated place. Store at temperatures above 5°C. Keep away from heat and direct sunlight. Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)
Specific end use(s):

The identified uses for this product are detailed in Section 1.2.

Section 8 -- EXPOSURE CONTROLS / PERSONAL PROTECTION
8.1. Control Parameters
Occupational exposure limits

Material	Type	Value	Source
Bacillus subtilis, strain GB03 (CAS 68038-70-0):	N/A	N/A	N/A
Inert ingredients:	N/A	N/A	N/A

8.2. Exposure controls

Protective equipment

General information:

Appropriate engineering controls:

Eye / face protection:

Hand protection:

Other skin and body protection:

Hygiene measures:

Respiratory protection:

Environmental exposure controls:

Equipment:

HMIS Letter:

B



Protective engineering solutions should be implemented and in use before personal protective equipment is considered.

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation.

Use chemical splash-type goggles. Face shield.

For hand protection, wear approved gloves made of nitrile, PVC, or neoprene. Thoroughly rinse the outside of gloves with water prior to removal. Inspect regularly for leaks.

For body protection wear suitable protective clothing.

Avoid breathing vapors, mist or gas. Clean water should be available for washing in case of eye or skin contamination.

If concentrations in excess of 10 ppm are expected, use NIOSH/DHHS approved self-contained breathing apparatus (SCBA) or other approved air-supplied respirator (ASR) equipment (e.g., a full-face airline respirator (ALR)).

Eye bathing equipment should be available on the premises. Provide quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State:	Liquid	Evaporation Rate:	N/A
Color	Brown	Boiling Point:	About 210°F / 99°C
Odor:	Sweet Earthy Odor	Freezing Point:	<32°F / 0°C
Weight per Gallon / Liter:	9.95# @ 70°F / 1.19 Kg @ 21°C	Viscosity:	20 cps @ 21 Degrees C
Storage Life at 70F:	>3 years	Flash Point/Method:	Noncombustible
pH – 21C:	5-6	Vapor Pressure:	Equivalent to water
Solubility:	Soluble	Storage Temperature:	Above 32°F / 0°C

Section 10 -- STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity: Stable

10.2. Chemical Stability

Stability: Stable under normal recommended storage conditions.

10.3. Possibility of Hazardous Reactions

Possibility of hazardous reactions: N/E

10.4 Conditions to Avoid

Conditions to avoid: Exposure to extreme temperatures and incompatible materials

10.5 Incompatible Materials

Materials to avoid: N/E
 10.6 Hazardous Decomposition Products
 Hazardous decomposition products: N/E

Section 11 -- TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Toxicological effects: N/E. No data available.
Over Exposure, Acute: Liquid contact may cause slight eye irritation and repeated skin exposure may cause skin irritation.
Over Exposure, Chronic: N/E
Routes of Exposure: Not expected to be harmful under normal conditions of use, however if allowed to become airborne, may cause irritation of nose throat and lungs. May cause irritation from prolonged or repeated contact.
Acute, Dermal LD₅₀: N/E
Acute, Oral LD₅₀: N/E
Effects to eyes: No corneal or iridal effects were noted at dose of 0.1 ml, rabbits.
Effects to Ingestion Non-toxic and non-pathogenic
Effects to skin: Moderate irritation, reversible within 7 days

11.2 Toxicological information on main components of the mixture:

Carcinogenicity Assessment: Bacillus subtilis: test not required for microorganisms
Mutagenicity Assessment: Bacillus subtilis: test not required for microorganismsee4
ACGIH: None **NTP:** None **IARC:** None **OSHA:** None

Section 12 -- ECOLOGICAL INFORMATION

Ecotoxicity:

12.1. Toxicity N/A
12.2. Persistence and degradability
Persistence and Degradability: N/E
12.3. Bioaccumulative potential
Bioaccumulative potential: Expected to desorb fairly rapidly from soil and not bioaccumulate.
Partition coefficient:
12.4. Mobility in Soil
Mobility: This product is biodegradable in soil by microbial activity
12.5. Results of PBT and vPvB Assessment Not listed in EIS PBT List.
12.6. Other Adverse Effects
Other adverse effects: N/E

Section 13 -- DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Disposal methods: Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product, residue and/or container. Product as shipped Section 13.

Section 14 -- TRANSPORTATION INFORMATION

General

Product is not flammable, not corrosive, not explosive and not radioactive.

- 14.1. UN Number N/A
- 14.2. UN Proper Shipping Name N/A
- 14.3. Transport Hazard Class(es) N/A
- 14.4. Packing Group N/A
- 14.5. Environmental Hazards N/A
- 14.6. Special Precautions for User N/A
- 14.7. Transport in Bulk According to Annex II of MARPOL73/78 and the IBC Code: N/A

Section 15 -- REGULATORY INFORMATION

- 15.1. Safety, health and Environmental Regulations / Legislation Specific for the Substance or Mixture
 EU legislation: This product is labeled in accordance EU directives.
- 15.2. Chemical Safety Assessment
 See Section 2.3 for NFPA & HMIS Ratings

Section 16 - OTHER INFORMATION

REVISED DATE: 20 May 2019

Other Precautions:

Read entire label before using

Abbreviations / Acronyms:

N/E	Not Established	N/A	Not applicable
ACGIH	American Conference of Governmental Industrial Hygienists		
TLV	Threshold Limit Values		
PEL	Permissible Exposure Limit		
REL	Recommended Exposure Limit		
OSHA	Occupational Safety and Health Administration		
NIOSH	National Institute for Occupational Safety and Health		
TWA	Time Weighted Average over 8 hours of work		
TLV	Threshold Limit Value over 8 hours of work		
REL	Recommended Exposure Limit		
PEL	Permissible Exposure Limit		
STEL	Short Term Exposure Limit during x minutes		
IDLH	Immediately Dangerous to Life or Health		
TSCA	Toxic substance Control Act (United States)		
DSL	Domestic Substance List (Canada)		
EINECS	European Inventory of Existing Commercial Chemical Substances (Europe)		
ELINCS	European List of Notified Chemical Substances (Europe)		
ENCS	Existing Chemical Substances		
IECSC	Inventory of Existing Chemical Substances		
KECL	Korea Existing Chemicals Inventory		
PICCS	Philippines Inventory of Chemical and Chemical Substances		
AICS	Australian Inventory of Chemical Substances		
NZIoC	New Zealand Inventory of Chemicals		
HMIS	Hazardous Material Identification System (American Coatings Association)		
NFPA	National Fire Protection Association		
PBT	Persistent Bioaccumulative and Toxic		
vPvB	Very Persistent and very Bioaccumulative		
STOT SE	Specific Target Organ Toxicity; Single Exposure		
STOT RE	Specific Target Organ Toxicity; Repeated Exposure		

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