1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1 Product Identifier

MATERIAL NAME: B402 Biological Larvicide CERTAN
Synonyms: None
EPA Reg No.: 94413-1
Code Number: A518054
List Number: A528651
Chemical Family: Microbial, Bta strain ABTS-1857

Substance Registration Number(s)[REACH]: N/A

1.2 Relevant Identified Uses and Uses Advised Against

Identified Uses: Biological Larvicide
Uses Advised Against: It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.

1.3 Details of the supplier of the Safety Data Sheet

Supplied By: Vita Bee Health Limited
1 Castlewood Avenue
Rathmines, Dublin 6
006 H685 Ireland

1.4 EMERGENCY TELEPHONE NUMBERS

Emergency Health or Spill:
Outside the United States: (+44) 1256-473-175
Within the United States: 1-800-222-1222

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Eye Irritant, Category 2A

2.2 Labeling Elements

Symbol(s):

![](image)
Signal Word

WARNING

Hazard Statement(s)
Causes serious eye irritation.

Precautionary Statement:
Prevention
Wash Hands and face thoroughly after handling
Wear protective clothing/eye protection/face protection

Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Disposal
Dispose of contents/container in accordance with local/regional/national regulations.

2.3 Other Hazards
None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Component Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Bta, strain ABTS-1857, Fermentation Solids</td>
<td>10.8</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>Other Ingredients</td>
<td>89.2</td>
</tr>
</tbody>
</table>

4.1 Description of First Aid Measures

4. FIRST AID MEASURES

GENERAL: In all cases of doubt, seek medical attention.

EYES: Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

SKIN: Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.
INGESTION: Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. Give large quantities of water. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

INHALATION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.

4.2 Most important Symptoms and Effects, both Acute and Delayed

Acute
Eye irritation

Delayed
No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed
Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES

5.1 Extinguisher Media

Suitable Extinguisher Media
Dry chemical, water spray, foam or carbon dioxide. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media
None known

5.2 Specific Hazards Arising from the Chemical

None known

Thermal decomposition products
Carbon oxides, nitrogen oxides

5.3 Advice to Firefighters

Protective Equipment and precautions for firefighters
Fire fighter should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)
6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures
Use in well-ventilated area. Wear eye protection appropriate to handling activities. Wear impervious gloves. Wear appropriate body coverings if contact may occur. Where exposure level is not known, wear respirator protection suitable for expected level of exposure, in addition to the personal protection as recommended in section 8.

6.2 Environmental Precautions
Keep out of drains, sewers, ditches and waterways. Avoid runoff to waterways and sewers.

6.3 Methods and Materials for Containment and Cleaning Up
Ventilate area. Wear appropriate personal protective equipment. Recover product with inert material (earth, sand, vermiculite), place into appropriate container for disposal. Do not flush to sewer.

6.4 Reference to Other Sections
See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

7. HANDLING AND STORAGE

7.1 Precautions for Safe handling
Avoid contact with eyes, skin or clothing. Wash hands and face thoroughly after handling. Do not eat drink or smoke while working with product, obey reasonable safety precautions and practice good housekeeping. For filling operations respiratory protection may be recommended particularly in enclosed areas. Keep in the original container or an approved alternative made from a compatible material; keep tightly closed when not in use.

7.2 Conditions for Safe Storage, Including and Incompatibilities
Protect against physical damage. Close containers of unused material. Store in a dry, cool, ventilated place away from direct sunlight.

Incompatibilities
None Known

7.3 Specific End Use(s)
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Component Exposure Limits

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

8.2 Exposure Controls

APPROPRIATE ENGINEERING CONTROLS

Provide general ventilation. Where adequate general ventilation is unavailable use process enclosure, local exhaust ventilation, or other engineering controls.

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. Wear gloves of impervious materials. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear goggles, safety glasses with side shields or full-face shield when splashing or spraying of materials is likely.

RESPIRATORY PROTECTION:

For filling operations if dust/mist is produced respiratory protection is recommended or where respiratory protection is warranted, use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C) or a NIOSH approved respirator with any N, P, R or HE filter). Wash thoroughly with soap and water after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/Color</td>
<td>Light Brown</td>
</tr>
<tr>
<td>Odor</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not Determined</td>
</tr>
<tr>
<td>pH</td>
<td>4.3 to 5.5</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Upper/Lower Flammability limit</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Upper/Lower Explosive Limit</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

B402 Biological Larvicide CERTAN

SDS# VBH-B402 Revision 2

ISSUED 04/23/2020

(Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012))

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freezing Point</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>100 °C</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Viscosity</td>
<td>400 to 1200 cps</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>1.05 to 1.18</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Octanol/Water Partition Coefficient</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

10. CHEMICAL STABILITY AND REACTIVITY

10.1 Reactivity
Material does not pose a significant reactivity hazard.

10.2 Chemical Stability
Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions
Does not undergo hazardous polymerization

10.4 Conditions to Avoid
None known

10.5 Incompatible Materials
None known

10.6 Hazardous Decomposition Products
Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

**Likely Routes of Exposure**
- Inhalation: Yes
- Eye Contact: Yes
- Skin Contact: Yes
- Ingestion: Yes

Product (and or TGAI) Toxicology
Acute Effects

Oral Toxicity: LD50 > 5,000 mg/kg (rat)
Dermal Toxicity: LD50 > 5,000 mg/kg (rabbit)
Inhalation Toxicity: LC50 > 2.52 mg/L air
Corrosiveness: Not Corrosive
Dermal Irritation: Mild or slight irritant over 72 hours
Ocular Irritation: Causes serious eye irritation. Cleared by day 14.
Dermal Sensitization: Not Determined
Mutagenicity Information: Components of this product are not listed as mutagens.
Carcinogenicity Information: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.
Developmental/Reproductive Toxicity: This material is not a teratogenic compound.
Special Target Organ: Not Applicable
Aspiration Hazard: Not Applicable
Repeat Dose Studies: Not Performed

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity (Data for concentrated technical powder)
Fish: LC50 >100 mg/L (96-H, Rainbow Trout)
Bird: NOEL 1714 mg /kg /Day (3.4 x 1011 cfu/kg) (Dietary - Bobwhite Quail & Mallard Duck)

12.2 Persistence and Degradability
No data available

12.3 Bioaccumulation potential
No data available

12.4 Mobility in Soil
No data available

12.5 Results of PBT and vPvB assessment
Assessments not performed

12.6 Other adverse effects
None known

13. DISPOSAL CONSIDERATIONS
13.1 Waste Disposal Methods
Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

US EPA WASTE NUMBER & DESCRIPTIONS: There is no applicable EPA waste number.

14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated for domestic ground transport by US DOT
UN PROPER SHIPPING NAME: N/A
REMARKS: N/A

IATA/ICA0 STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

IMDG STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

15. REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations / Specific Legislation
TSCA STATUS: Exempt
CERCLA STATUS: Not regulated as hazardous
SARA STATUS: Acute: No  Chronic: No  Fire: No  CDT: No
RCRA STATUS: Not regulated as hazardous
State Right-To-Know: Not listed

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR.

15.2 Pesticide Labeling (EXAMPLE OF FIFRA – EPA labeling)
EPA registration Number: 94413-1
EPA Pesticide Label signal word: Warning

Product must have EPA Approved Pesticide Label attached or accompanying all containers.
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 and limitations for its use.

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING. Causes substantial, but temporary eye injury. Do not get in eyes or on clothing. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS
Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

STORAGE AND DISPOSAL
Do not contaminate water, food or feed by storage or disposal.

Storage: Reclose containers of unused B402. Store in a dry, cool place inaccessible to children and out of sunlight. Keep container closed when not in use.

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 or by industry).

Container Handling: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or dispose of in trash or in sanitary landfill or by incineration.

16. OTHER INFORMATION

NFPA Hazard Ratings  HMIS Hazard Ratings
SAFETY DATA SHEET

B402 Biological Larvicide CERTAN

SDS# VBH-B402 Revision 2

ISSUED 04/23/2020

(Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012))

<table>
<thead>
<tr>
<th>Health</th>
<th>N/D</th>
<th>Flammability</th>
<th>N/D</th>
<th>Instability</th>
<th>N/D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>N/D</td>
<td>Flammability</td>
<td>N/D</td>
<td>Instability</td>
<td>N/D</td>
</tr>
</tbody>
</table>

0 = minimal
1 = slight
2 = moderate
3 = serious
4 = Extreme

REASON FOR ISSUE: General Update
APPROVAL DATE: 04/23/2020
SUPERSEDES DATE: 01/29/2020

LEGEND: N/A = Not Applicable  N/D = Not Determined
N/L = Not Listed              L = Listed
C = Ceiling                   S = Short-term
(R) = Registered Trademark of Vita Bee Health Limited
(TM) = Registered Trademark of Vita Bee Health Limited

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Vita Bee Health Limited and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Vita Bee Health Limited nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users’ own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Vita Bee Health Limited to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, “Hazcom”). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which...
reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.