

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: Agree /Turex /Able WG
Product Type: Wettable Granule
EPA Registration No. 70051-47
Active Ingredient: *Bacillus thuringiensis* subspecies strain *aizawai* strain GC-91
CAS No.: 68038-71-1

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Bio-insecticide
Uses advised against: Any uses not listed on the label

1.3. Details of the supplier of the safety data sheet

Name: Certis U.S.A., LLC
Address: 9145 Guilford Road, Suite 175
Columbia, Maryland 21046
U.S.A.
Phone Number: +01 (800) 255-3924
Website: <http://www.certisusa.com>

1.4. Emergency telephone number

Emergency number: +1 800 255-3924

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Hazard Classification: Not classified by OSHA
EPA Signal Word: Caution (see section 15)
Hazard Statements: None
Pictogram: None
Precautionary Statements: Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking chewing gum, using tobacco and using the toilet. Remove contaminated clothing and wash clothing before reuse.

2.2 Other Hazards: Do not apply directly to water or to areas where surface water is present or to intertidal areas below mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment rinse waters. Product must not be aerilly applied with in ¼ mile of any habitats of endangered or

threatened Lepidoptera. No manual applications within 300 ft. of any threatened or endangered Lepidoptera.

SECTION 3: Composition/information on ingredients

Ingredient	Cas #	% w:w
<i>B.thuringiensis</i> var. <i>aizawai</i> Strain G91 (CGA-237218)	68038-71-1	50

SECTION 4: First aid measures

4.1. Description of first aid measures

Generic measures

Eye Contact: Hold eye open and rinse slowly and gently for 15-20 minutes. Remove contact lens after 5 minutes then continue rinsing eye.

Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

Ingestion: Call a POISON CENTER or doctor for treatment advice. Have person sip a glass of water if they are able to swallow. Do not induce vomiting unless directed to do so by poison control center or doctor. Never give anything by mouth to an unconscious person.

Have product container or label with you when calling or going for treatment at poison control or doctor

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

Eye irritation or allergic reaction

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

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media: Dry chemical, foam, carbon dioxide.

Unsuitable Extinguishing Media: None known.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: None known

5.3. Advice for firefighters:

Protection of Firefighters: None specified

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel:** Use personal protection recommended in Section 8. Avoid generation of dusts. Do not inhale dusts. Avoid substance contact. Ensure adequate ventilation.
- For emergency responders:** Use personal protection recommended in Section 8.

6.2. Environmental precautions Do not apply directly to water or to areas where surface water is present or to intertidal areas below mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment rinse waters. Product must not be aerily applied within ¼ mile of any habitats of endangered or threatened Lepidoptera. No manual applications within 300 ft. of any threatened or endangered Lepidoptera. Keep out of drains, sewers, ditches, and waterways.

6.3. Methods and material for containment and cleaning up

- Methods for Containment:** Contain spill. Reclaim material if possible.
- Methods for Clean-Up:** Collect mechanically. Sweep, vacuum, or shovel material into a container for disposal. Avoid generation of dusts. Clean up affected area with plenty of water. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies.
- Other Information:** Dispose of in accordance with Federal state and local regulations.

6.4. Reference to other sections

See Section 8 for occupational exposure limits and risk management measures. Refer to Section 13 for disposal considerations..

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking chewing gum, using tobacco and using the toilet. Remove contaminated clothing and wash clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Store at temperatures below 104°F Do not contaminate water food or feed by storage or disposal..

7.3. Specific end use(s)

Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OSHA Permissible Exposure Limits (PELs): Not determined

ACGIH Threshold Limit Values: Not determined

Other Exposure Limits: Not determined

8.2. Exposure controls

Engineering Controls: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified by the WPS.

Personal Protective Equipment

Eye/Face Protection: None specified

Skin Protection Wear long sleeved shirt, and long pants

Hand Protection: Water proof gloves

Body Protection: ,shoes and socks

Respiratory Protection: Mixer loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentrates of microbial proteins can cause allergic sensitization.

Thermal Hazards: None

General Hygiene Considerations: Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Remove clothing /PPE immediately if pesticide gets inside. Wash PPE thoroughly according to manufacturer's instructions before reuse. Contaminated clothing should be washed separately before reuse.

Remove PPE immediately after handling this product. Wash the outside of the gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

Environmental exposure controls: Do not apply directly to water or to areas where surface water is present or to intertidal areas below mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment rinse waters. Product must not be aerilly applied with in ¼ mile of any habitats of endangered or threatened Lepidoptera. No manual applications within 300 ft. of any threatened or endangered Lepidoptera.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: Pale brown granules (solid).

Odour:	Fishy
Odour Threshold:	Not established
pH:	6.0-7.0 25 °C
Melting Point / Freezing Point:	Not applicable
Initial Boiling Point:	Not applicable
Boiling Range:	Not applicable
Flash Point:	Not applicable
Evaporation Rate:	Not determined
Flammability (solid, gas):	Not determined
Lower & Upper Flammability Limits:	Not determined
Vapour Pressure:	Not applicable
Vapour Density:	Not applicable
Density:	0.39-0.43 g/ml
Solubility:	Not determined
Partition Coefficient (n-octanol/water):	Not determined
Auto-ignition Temperature:	392°C
Decomposition Temperature:	Not determined
Viscosity:	Not applicable
Other relevant properties:	None known

9.2. Other information

Not available.

SECTION 10: Stability and reactivity

<u>10.1. Reactivity</u>	No known hazardous reactions when handled and stored according to stated provisions.
<u>10.2. Chemical stability</u>	Stable when handled and stored according to stated provisions.
<u>10.3. Possibility of hazardous reactions</u>	None known
<u>10.4. Conditions to avoid</u>	None known
<u>10.5. Incompatible materials</u>	None known
<u>10.6. Hazardous decomposition products</u>	No known

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Toxicological information on the substance or mixture:

LD₅₀ (oral)	> 5050 mg/kg, rat, study with similar product containing the same active ingredient
LD₅₀ (dermal)	> 2020 mg/kg, rat, study with similar product containing the same active ingredient
LC₅₀ (inhalation)	> 5.78 mg/L/4h (highest attainable concentration in air), 1.8 × 10 ⁸ CFU/L, study with a similar product containing the same active ingredient
Skin corrosion / irritation:	Slightly irritating, study with a similar product containing the same active ingredient
Serious eye damage/irritation:	Slightly irritating, study with a similar product containing the same active ingredient
Respiratory or skin sensitization:	Not considered to elicit a sensitizing reaction in guinea pigs.

Other information on adverse health effects:

Carcinogenicity

NTP Listed:	Not applicable
IARC Listed:	Not applicable
OSHA:	Not applicable

11.2 Reference to other sections

See Section 4 for symptoms and acute and delayed effects.

SECTION 12: Ecological information

12.1. Toxicity

Test species	Test method	Test substance	LC ₅₀
Northern Bobwhite	Oral toxicity	CGA-237218 Technical (GC-91)	LC ₅₀ > 16.7 g/kg
<i>Oncorhynchus mykiss</i>	32-day static renewal	CGA-237218 Technical (GC-91)	Aqueous LC ₅₀ > 3.9 × 10 ⁷ cfu/ml; oral LC ₅₀ > 1.5 × 10 ¹⁰ cfu/g
<i>Daphnia magna</i>	48 hour	Highly similar formulated product	LC ₅₀ > 100 mg/L (nominal)
<i>Apis mellifera</i> L	10 day	CGA-237218 Technical (GC-91)	LD ₅₀ oral > 91 µg/bee

12.2. Persistence and degradability

Bacillus thuringiensis subspecies *aizawai* (*Bta*) bacteria are rapidly degraded by UV light and the activities of other micro-organisms.

12.3. Bioaccumulative potential

Bta is not pathogenic and does not reproduce in living organisms other than target Lepidopteran larvae.

12.4. Mobility in soil

Bta has a high capacity to adsorb to the clay fractions in soils and shows no evidence of leaching.

12.5. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal Instructions: Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store at temperatures below 104°F.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of onsite or at an approved waste disposal facility.

Container Handling: Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill. Do not burn, unless permitted by state and local authorities.

SECTION 14: Transportation information

14.1. UN number

Not regulated.

14.2. UN proper shipping name

Not regulated.

14.3. Transport hazard class(es)

Not regulated.

14.4. Packing group

Not regulated.

14.5. Environmental hazards

Not regulated.

14.6. Special precautions for user

Not regulated.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not regulated.

SECTION 15: Regulatory information

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

EPA: This product 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-pesticidal 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, KEEP OUT OF REACH OF CHILDREN

Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation.

Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

OSHA:	N/A
TSCA Status:	Exempt
CERCLA Reportable Quantity:	N/A
SARA Title III:	
Section 302:	N/A
Section 311/312:	N/A
Section 313:	N/A
RCRA Status:	N/A

SECTION 16: Other information

Disclaimer:

To the best of our knowledge, the information contained herein is accurate. However, neither Certis USA nor any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All material may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

SDS Authoring Information:

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SDS Prepared by:	Certis U.S.A., LLC