

Material Safety Data Sheet

beetle *GONE!*TM

1. Chemical Product and Company Information

Product Name..... beetle *GONE!*TM
 EPA Registration No..... 88347-3
 Ingredient Name..... *Bacillus thuringiensis* serovar galleriae strain SDS-502 (Microbial)
 Chemical Name Not Applicable
 Formula..... Not Applicable

2. Composition/ Information on Ingredients

Component	CAS#	WT.%	OSHA PEL	TLV's TWA	STEL
<i>Bacillus thuringiensis</i>	68038-71-1	76.5	Not Established	Not Established	Not Established

3. Hazards Information

Emergency Overview

Causes moderate eye irritation. Harmful if absorbed through the skin or swallowed. Avoid contact with skin, eyes, 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.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or when going for treatment. For emergency information concerning this product, call the National Pesticide Information Center (NPIC) at 1-800-858-7378 seven days a week, 6:30 am to 4:30 pm, Pacific Time (NPIC Web site: www.npic.orst.edu). During other times, call your poison control center at 1-800-222-1222.

EPA Signal Word: Caution

Potential Health Effects

Route(s) of Entry..... Eyes, skin, oral, inhalation
 Human Effects and
 Symptoms of Overexposure..... Irritation of eyes or skin
 Acute Eye Contact..... Causes moderate eye irritation
 Chronic Eye Contact..... Chronic exposure not likely from normal use
 Acute Skin Contact..... Acute exposure may cause skin irritation
 Chronic Skin Contact..... Chronic exposure not likely from normal use
 Chronic Ingestion..... Chronic exposure not likely from normal use
 Acute Inhalation..... Acute exposure not likely from normal use
 Chronic Inhalation..... Chronic exposure not likely from normal use
 Carcinogenicity
 NTP..... N/A
 LARC..... N/A
 OSHA..... N/A

Medical Conditions Aggravated By Exposure: Individuals with pre-existing dermatitis or inflammation

4. First Aid Measures

- If in eyes:
- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
 - Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
 - Call poison control center or doctor for treatment advice.
- If on skin or clothing
- Take off contaminated clothing.
 - Rinse skin immediately with plenty of water for 15-20 minutes.
 - Call a poison control center or doctor for treatment advice.
- If swallowed
- Call a poison control center or doctor immediately for treatment advice.
 - Have person sip a glass of water if able to swallow.
 - Do not induce vomiting unless told to by a poison control center or doctor.
 - Do not give anything by mouth to an unconscious person.

5. Fire Fighting Measures

NFPA Hazard Classification Health Hazard 1 Fire Hazard 0
..... Reactivity 0

Extinguishing Media Dry chemical, foam, or carbon dioxide

Unusual Fire Fighting Explosion Hazards Thermal decomposition products may include, but are not limited to, CO₂, H₂O, and particulate fillers.

Special Fire Fighting Procedures None

6. Accidental Release Measures

Spill or Leak Procedure Wear chemical safety glasses with side shield or chemical goggles, rubber or latex gloves, long-sleeved shirt, long pants, and a NIOSH-approved dust or pesticide respirator with a dust prefilter. For small spills, sweep up, keeping dust to a minimum, and place in a sealed container. Wash the spill area with water containing a strong detergent, absorb with paper towels, and/or sweep up and place in a biohazard bag. Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

7. Handling and Storage

Storage Temperature (Min/Max) 32 / 90 F 0 / 32 C

Shelf Life Stable at Room Temperature

Handling and Storage Precautions Store in a cool, dry place inaccessible to children.

8. Exposure Controls / Personal Protective Equipment (PPE)

Applicators and handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Mixers/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 concentrations of microbial proteins can cause allergic sensitization.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions are available for washables, use detergent and hot water. Keep and wash PPE separately from laundry.

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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

9. Physical and Chemical Properties

Physical Form	Powder
Color	Tan
Odor	Slightly sweet
Boiling Point Range	N/A
Melt Point / Freeze Point	N/A
Flash Point	N/A
Auto Ignition	N/A
Upper Explosive Limits (UEL)	Not Determined
Lower Explosive Limits (LEL)	Not Determined
pH	6-7
Solubility in Water	Soluble
Specific Gravity/ Density	Not Determined
Bulk Density	33.9 lbs./cubic foot
% Volatile by Weight	Not Determined
Vapor Pressure at 20 C	Not Determined
Vapor Density	Not Determined

10. Stability and Reactivity

Stability	Stable
Hazardous Polymerization	Not occur
Incompatibilities	None known
Decomposition Products	None known
Conditions to Avoid	None known

11. Toxicological Information

Acute Toxicity/ Irritation Studies:

Ingestion or Oral: No acute oral toxicity is expected

Dermal: The estimated LD50, as indicated by the test data, was determined to be greater than 2020 mg/kg.

Eye Contact: The test substance is rated minimally irritating and assigned to Toxicity Category IV.

Inhalation: Standardized tests were conducted. The reviewer noted that no acute inhalation toxicity is expected and assigned Toxicity Category IV

Skin Contact: See Dermal above

Skin Sensitization: See Dermal above

Mutagenic Potential

Bacillus thuringiensis Not Available

Reproductive Hazard Potential

Bacillus thuringiensis Not Available

Chronic/ Subchronic Toxicity Studies

Bacillus thuringiensis Not Available

Carcinogenic Potential

Bacillus thuringiensis Not Available

Other Toxicity Information

Not Available

Toxicity and Other Components

Food grade inert ingredients

Target Organs

Active Ingredients	<i>Bacillus thuringiensis</i>	Not Available
Inert Ingredients	Skin and Eyes	

12. Ecological Information

Environmental hazards: For terrestrial uses: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment, wash waters or rinse water.

This product must not be applied aerially within ¼ mile of any habitats of threatened or endangered Lepidoptera or Coleoptera. No manual application can be made within 300 feet of any threatened or endangered Lepidoptera or Coleoptera.

Summary of Effects: *Bacillus thuringiensis*

Microbial Pest Control Agent (MPCA) Freshwater Aquatic Invertebrate Test with *Daphnia magna*

The chronic toxicity of the microbial pest control test substance (SDS-502 TGA1) to the mortality, reproduction and growth of fresh water invertebrate *Daphnia magna* was assessed in a 21-day static renewal test. No toxic effects due to the test substance were found.

Eco-Acute Toxicity

Bacillus thuringiensis No Toxicity to European honeybee or beneficial wasps

Evaluation of Dietary Effect of SDS-502 Cry8Da on Larval Honeybee Development (*Apis mellifera* L.)

The objective of this study was to evaluate potential dietary effect of a SDS-502 Cry8Da protein toxin concentrate in combination with 30% sucrose on development of the honeybee larvae, (*Apis mellifera* L.). A dietary study was chosen because ingestion of the SDS-502 Cry8Da protein toxin is anticipated to be the primary route of bee exposure.

Based on the data analysis, there were no significant differences in the survival probabilities of honeybee larvae between the SDS-502 Cry8Da protein toxin in combination with 30% sucrose, 50 mM CAPS Buffer (test substance), or sterile water (negative control) treatments, while the potassium arsenate (chemical control) treatment had no survival.

Environmental Fate

Bacillus thuringiensis Significantly decreased and disappeared

13. Disposal Considerations

Waste Disposal Method..... Nonrefillable container. Do not reuse or refill containers. If empty: Place in trash or offer for recycling if available. If partially filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

14. Transportation Information

D.O.T. Proper Shipping Name.....	N/A
Technical Shipping Name.....	beetle <i>GONE!</i>
D.O.T. Hazard Class.....	Not Regulated
U.N./ N.A. Number.....	N/A
Product RQ (lbs.)	N/A
D.O.T. Label.....	N/A
D.O.T. Placard.....	N/A

15. Regulatory Information

OSHA	N/A
TSCA Status	Exempt
CERCLA Reportable Quantity	None
SARA Title III	
Section 302 Extremely	
Hazardous	N/A
Section 311/312	
Hazard Categories	N/A
Section 313	
Toxic Chemicals	N/A
RCRA Status	N/A

State Regulatory Information

Product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For detail on your regulatory requirements you should contact the appropriate agency in your site.