



SHANGHAI BOSMAN INDUSTRIAL CO., LTD.

Add: Room1804, No.1611, North Sichuan Road, Hongkou District, Shanghai, P.R. China.

Tel: +86 21 63065878 | **Fax:** +86 21 63065878 | **E-mail:** info@bosmangroup.com

Website: www.bosmanagrochem.net

Version: 1.0 Issue date: June 1, 2022

MATERIAL SAFETY DATA SHEET OF

BT 8000 IU/ μ L SC

1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product name: BT 8000 IU/ μ L SC

Supplier: Shanghai Bosman Industrial Co., Ltd

Street address: No. 1611, North Sichuan Road, Hongkou, Shanghai R.P. China

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Fax: + 86 21 63065878

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NO	PROPORTION
Bacillus thuringiensis	68038-71-1	8000 IU/ μ L
others	Not available	Balance

Other ingredients determined not to be hazardous

3. HAZARDS IDENTIFICATION

Notes to Physician: There is no specific antidote if this product is ingested. If a large amount has been ingested emesis is inadequate, lavage stomach. Treat symptomatically.

Symptoms of Acute Exposure: Exposure may result in eye irritation. A skin sensitization(allergic) reaction may occur in sensitive individuals.

Hazardous Decomposition Products: None Known

4. FIRST AID MEASURES

Description of first aid measures

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

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

Inhalation: Move person to fresh air, if person is not breathing, call 911 or an ambulance, then give artificial



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respiration preferably mouth to mouth, if possible.

Ingestion: Contact physician or Poison Control Center immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center of doctor. Do not give anything by mouth to an unconscious person

Call a poison control center or doctor for further treatment advice. Have the product container or label with you when calling the a poison control center or doctor or going for treatment.

Most important symptoms and effects, both acute and delayed

None specified

Indication of any immediate medical attention and special treatment needed

None specified

5. FIRE FIGHTING MEASURES

Extinguishing Media: Dry chemical, foam or carbon dioxide. Use respirator to protect from fumes.

Unusual Fire and Explosion Hazards: None known.

Special Protective Equipment: Fire fighters should wear full protective clothing and selfcontained breathing apparatus.

Fire Fighting Procedures: Normal procedures. Remove spectators from surrounding area. Remove container from fire area if possible. Fight fire from maximum distance. Contain fire control agents for later disposal. Water can be used to cool unaffected containers but must be contained for later disposal. Avoid inhalation of fumes. Keep upwind. Do not allow fire fighting water to escape into waterways or sewers.

6. ACCIDENT RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: None specified

For emergency responders: None specified

Environmental precautions

Do not apply directly to water, or where surface water is present, or to inter tidal areas below mean high water mark. Do not contaminate water when disposing of equipment wash waters.



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This product must not be applied aerially within $\frac{1}{4}$ mile of any endangered or threatened Lepidoptera. No manual application can be made within 300 feet of any endanger or threatened Lepidoptera.

Methods and material for containment and cleaning up

Methods for Containment: Use absorbent material to minimize runoff of spilled product.

Methods for Clean-Up: Unused material should be disposed of in an approved waste facility following all federal, state and local regulations.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes or clothing. Handle as for any other pesticide. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Remove clothing immediately if the product gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

Storage: Store in original container in a cool, dry and well-ventilated area separated from food products or flammables. Protect from freezing and store below 32 OC to protect activity. Keep out of reach of unauthorised persons, children and animals. Local regulations should be complied with.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits: Not applicable.

It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

PERSONAL PROTECTIVE EQUIPMENT:

If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection.

Respirator: An approved respirator suitable for protection from dusts and mists of pesticides is adequate. Limitations of respirator use specified by the approved agency and the manufacturer must be observed.

Clothing: Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated

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or prolonged skin contact with this substance. Rubber boots, longsleeved shirt, long pants and head covering is recommended.

Gloves: Employee must wear protective rubber gloves to prevent contact with this substance.

Eye protection: The use of safety goggles or safety glasses with side shields is recommended to avoid eye contact.

Emergency eye wash: Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Amber to brown liquid

Odour: Yeasty

pH: 4.5-6.5

Density: NA

Solubility: Suspension in water

10. STABILITY AND REACTIVITY

Stability: Stable. Shelf life of formulation is up to 2 years. Store in dry area and protect from temperatures below 0°C and above 32°C to protect activity.

Reactivity: Not reactive.

Incompatibility with Other Materials: None known.

Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral No infectivity or toxicity observed in rats at 4.7×10^{11} spores/kg. No adverse effects at doses of 1×10^8 up to 7×10^{12} cfu per rat. LD₅₀ >5050 mg/kg (2×10^{11} cfu/kg b.w.).

Skin and eye No infectivity or toxicity observed in rats at 3.4×10^{11} spores/kg. LD₅₀ for rabbits >2000 mg/kg



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b.w. (13.3×10^{10} cfu/kg b.w.).

Inhalation No infectivity or toxicity at 5.4 mg/l (2.6×10^7 spores/l). LC₅₀ for rats >5.95 mg/l (2.4×10^8 cfu/l).

Chronic toxicity

NOEL (2 y) for rats 8.4 g/kg b.w. daily; (13 w) for rats 1.3×10^9 spores/kg b.w. daily.

12. ECOLOGICAL INFORMATION

Birds In 63-day feeding trials, chickens receiving up to 5.1×10^7 spores/g diet showed no ill-effects.

Fish LC₅₀ (96 h) for water goby (*Pomatoschistus minutus*) >400 mg/l (as ‘Thuricide HP’). LC₅₀ (32 d) for rainbow trout >143.5 mg/l ($>2.87 \times 10^9$ cfu/l).

Algae No bacteriostatic or bactericidal activity was detected and no inhibition of growth in pure and mixed cultures of the alga was observed at any concentration of either bound or free Btk toxins.

Other aquatic spp. LC₅₀ (10 d) for the benthic harpacticoid copepod *Amphiascus minutus* >500 mg/kg sediment ($>1 \times 10^{10}$ cfu/kg sediment) (strain ABTS-351).

Bees Non-toxic to bees; LD₅₀ (oral) >0.1 mg/bee (as ‘Delfin WG’). Strain ABTS-351 is not toxic to honeybees following 14 days of oral ingestion at concentrations up to 4042 µg Btk/bee.

Worms LC₅₀ (30 d) for earthworms (*Lumbricus terrestris*) >1000 mg/kg dry soil.

Other beneficial spp. Strain ABTS-351 caused no adverse effects on mortality or reproduction of *Aphidius rhopalosiphi* at 3.9 kg/ha.

13. DISPOSAL CONSIDERATION

Pesticide Disposal: Do not contaminate water when disposing of equipment washwaters. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container disposal: Nonrefillable 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, or by incineration, or it allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORT INFORMATION



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UN Number: Not regulated

UN Proper shipping name: Not regulated

Transport hazard class: Not regulated

Packing group: Not regulated

15. REGULATORY INFORMATION

Keep out of children. Keep away from food, drink and animal feeding stuffs.

When using, do not eat, drink or smoke. Avoid contact with skin and eyes. Wear suitable protective clothing and gloves.

16. OTHER INFORMATION

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This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact the company.

--END OF MSDS --