

MATERIAL SAFETY DATA SHEET OF

THIABENDAZOLE +IMAZALIL 0.7% SC

1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Supplier: Shanghai Bosman Industrial Co., Ltd

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

Tel: + 86 21 63065878

Fax: + 86 21 63065878

Product name: Thiabendazole +Imazalil 0.7% SC

2. COMPOSITION/INFORMATION ON INGREDIENTS

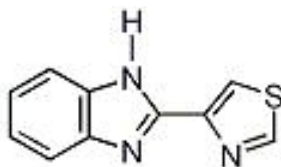
Formulation Type: Suspension concentrate (SC)

IUPAC name:

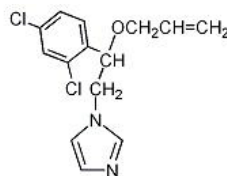
Thiabendazole: 2-(thiazol-4-yl)benzimidazole; 2-(1,3-thiazol-4-yl)benzimidazole

Imazalil: (±)-1-(β-allyloxy-2,4-dichlorophenylethyl)imidazole; allyl (±)-1-(2,4-dichlorophenyl)-2-imidazol-1-ylethyl ether

Structural Formula:



Thiabendazole



Imazalil

Composition:

INGREDIENT	CAS NO	PROPORTION
Thiabendazole	148-79-8	0.5% min
Imazalil	35554-44-0	0.2% min
other	Not available	Up to 100%

Other ingredients determined not to be hazardous

3. HAZARDS IDENTIFICATION

Symptoms of Acute Exposure

May be irritating via ocular and dermal routes. May be toxic to aquatic organisms.

Hazardous Decomposition Products

Can decompose at high temperatures and form toxic gases.

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Potential Health Effects

Relevant routes of exposure: Skin, eyes, mouth, lungs.

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting, unless instructed so. Immediately get medical advice/attention.

Inhalation: If inhaled removed to fresh air and keep at rest. If signs of poisoning occur obtain medical attention immediately.

Eyes: Rinse eyes immediately with clean water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing while holding eyelids apart. Seek medical assistance if irritation persists. Seek medical help if irritation continues.

Skin: Remove all contaminated clothing immediately. Rinse affected areas (skin) immediately with plenty of water/shower. Wash contaminated clothing before re-use.

Note to physician: No specific antidote. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical, carbon dioxide. Use as little water as possible to prevent spreading.

Hazardous from combustion products: Carbon monoxide, carbon dioxide, hydrochloric acid, nitrogen oxides, chlorides.

Precautions for fire fighters: Fire fighters should wear full protective gear including self-containing breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

6. ACCIDENT RELEASE MEASURES

Personal Precautions: Make sure all personnel involved in the spill cleanup follow good industrial

hygiene practices. A small spill can be handled routinely. Use adequate ventilation and wear equipment and clothing as described in Section 8 and/or the product label.

Procedures for dealing with release or spill: Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Sections 7 and 8. Pump or scoop large amounts of liquid into a disposable container. Absorb remaining liquid or smaller spills with clay, sand or vermiculite. Scoop or sweep up material and place into a disposal container. Wash area with detergent and water. Pick up wash liquid with additional absorbent and place into compatible disposal container. On soils, small amounts will naturally decompose. For large amounts, skim off the upper contaminated layer and collect for disposal. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposal. Spillages or uncontrolled discharges into watercourses must be reported to the appropriate regulatory authority.

7. HANDLING AND STORAGE

Handling: Wear suitable protective clothing (Dust mask; Eye shields, Gloves). No special measures necessary if stored and handled correctly. This product may be harmful if swallowed, inhaled or absorbed through the skin. Keep away from heat, protect from sunlight and from freezing. Ensure thorough ventilation of stores and work areas Wash hands, arms and face after use. Wash gloves and contaminated protective clothing daily.

Storage: Store out of reach of children, tightly closed in original containers, which include the complete label, in a cool, dry and well-ventilated area out of direct sunlight. Segregate from food, drink and animal feeds. Physically and chemically stable for at least 2 years when stored in the original unopened container at ambient temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection 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 mists of pesticides is adequate. Limitations of respirator use specified by the approved agency and the manufacturer must be observed.

Clothing: wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

Gloves: wear appropriate synthetic protective gloves to prevent contact with this substance.

Eye protection: The use of safety goggles is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid

Odour: Odourless

Density: NA

Water solubility: suspension in water

pH 5.0-9.0

Flash point Not applicable, water based formulation

Flammability not flammable

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal use and storage conditions.

Conditions to avoid: Excessive heat or cold.

Incompatibility with other materials: Copper-containing fungicides, highly alkaline materials.

Hazardous decomposition products: Can decompose at high temperatures forming toxic gases. Toxic gases include carbon dioxide, carbon monoxide, nitrogen and sulphur compounds, chlorides.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

For Thiabendazole TC

Acute toxicity

Acute oral toxicity: LD₅₀ for mice 3600, rats 3100, rabbits $\geq$ 3800 mg/kg.

Acute eye and dermal toxicity: LD₅₀ for rabbits >2000 mg/kg.

Acute eye and skin irritation: Non-irritating to eyes and skin (rabbits).

Acute skin sensitization: Not a skin sensitizer (guinea pigs).

Acute inhalation toxicity: LC₅₀ for rats >0.5 mg/l.

Chronic toxicity:

NOEL NOAEL (2 y) for rats 10 mg/kg b.w. daily.

For Imazalil TC

Acute toxicity

Acute oral LD50 for rats 227–343, dogs >640 mg/kg.

Acute Skin and eye toxicity: Acute percutaneous LD50 for rats 4200–4880 mg/kg.

Acute irritation: Not a skin irritant; a severe eye irritant (rabbits) (FAO Specifications).

Acute skin sensitization: Not a skin sensitiser (guinea pigs) (FAO Specifications).

Acute Inhalation: LC50 (4 h) for rats 2.43 mg/l.

Chronic toxicity

NOEL (2 y) for rats 2.5 mg/kg b.w. daily; (1 y) for dogs 2.5 mg/kg b.w.

12. ECOLOGICAL INFORMATION

For Thiabendazole TC

Birds Acute oral LD50 for bobwhite quail >2250 mg/kg. Dietary LC50 (5 d) for bobwhite quail and mallard ducks >5620 mg/kg diet.

Fish LC50 (96 h) for bluegill sunfish 19, rainbow trout 0.55 mg/l.

Daphnia EC50 (48 h) 0.81 mg/l.

Algae EC50 (96 h) for Selenastrum 9 mg/l; NOEC for Selenastrum 3.2 mg/l.

Other aquatic spp. LC50 (96 h) for shrimps 0.34, oysters >0.26 mg/l.

Bees Not toxic to bees.

Worms LC50 >1000 mg/kg soil.

Other beneficial spp. Harmless to Aleochara, Typhlodromus and Chrysoperla; slightly harmful to Aphidius.

For Imazalil TC

Birds LD50 for ring-necked pheasants 2000, quail 510 mg/kg. LC50 (8 d) for mallard ducks >2510 mg/kg b.w.

Fish LC50 (96 h) for rainbow trout 1.5, bluegill sunfish 4.04 mg/l.

Daphnia LC50 (48 h) 3.5 mg/l.

Algae EC50 0.87 mg/l (FAO Specifications).

Bees Not hazardous to bees when used as directed. LD50 (oral) 40 µg/bee.

Worms LC50 for Eisenia foetida 541 mg/kg soil (FAO Specifications).

Other beneficial spp. No effect on soil micro-organisms at 1 mg/kg soil (FAO Specifications).

13. DISPOSAL CONSIDERATION

Version: 1.0

Issue date: Oct. 10, 2025

Waste disposal information: Do not reuse empty containers unless they are specifically designed to be re-filled. Empty container retains product residue. Dispose of empty containers in accordance with local regulations. Consult provincial environment ministry for advice on waste disposal. Industrial/commercial waste may be handled at licensed facilities only. Waste shipments must be securely packaged and properly labelled. Only licensed carriers may be used, and proper documents must accompany the shipment.

14. TRANSPORT INFORMATION

UN NUMBER: 3082

Class: 9

Packing group: III

Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S.(Thiabendazole+Imazalil)

15. REGULATORY INFORMATION

Follow all local and international laws and regulations.

16. OTHER INFORMATION

Version: 1.0

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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 --