

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT IDENTIFICATION

Product name: Hexyziazox 3%+Abamectin 1% SC

Chemical name:

Hexyziazox: *Trans*-5-(4-chlorophenyl)-*N*-cyclohexyl-4-methyl-2-oxo-3-thiazolidinecarboxamide

Abamectin: 5-*O*-demethylavermectin A_{1a} (i) mixture with 5-*O*-demethyl-25-de(1-methylpropyl)-25-(1-methylethyl)avermectin A_{1a} (ii)

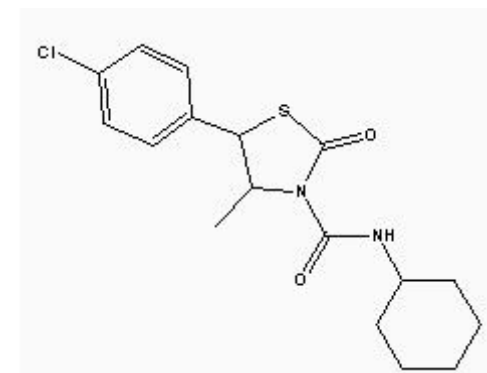
Molecular formula:

Hexyziazox: C₁₇H₂₁ClN₂O₂S

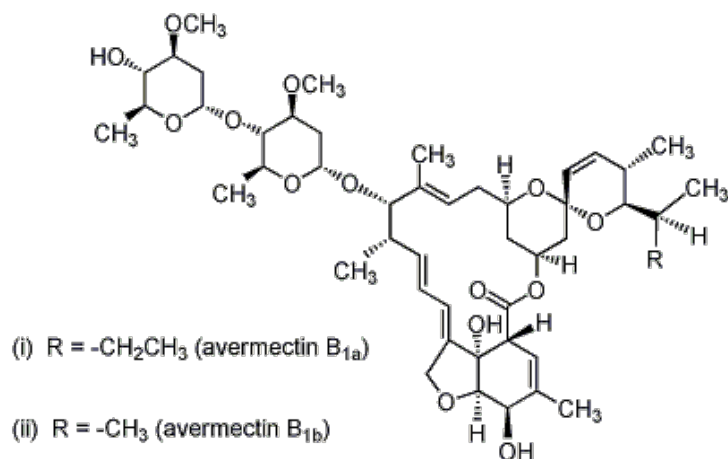
Abamectin: C₄₈H₇₂O₁₄ (avermectin B_{1a}); C₄₇H₇₀O₁₄ (avermectin B_{1b})

Structural:

Hexyziazox:



Abamectin:



SECTION 2: COMPOSITION AND INGREDIENT INFORMATION

Hexyziadox	3%
Abamectin	1%

SECTION 3: HEALTH HAZARD INFORMATION

Warning: Keep out of reach of children. Avoid contact with eyes and skin. Do not breathe vapors/mists. Do not breathe sprays or mists.

SECTION 4: FIRST AID MEASURES

Ingestion: 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 to an unconscious person.

Eyes: In case of eye contact, check for and remove any contact lenses. Immediately irrigate eyes with plenty of running water for at least 20 minutes, keeping eyelids open. Seek immediate medical attention.

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

Inhalation: If inhaled: Move person to fresh air. If person is not breathing, call an ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

SECTION 5: FIRE AND EXPLOSION INFORMATION

Suitable extinguishing media: Water spray, water fog, carbon dioxide, foam, dry extinguishing media

Hazards during fire-fighting: Toxic substances may be released in fire: Such as carbon monoxide, carbon dioxide, nitrogen dioxide, hydrogen chloride, hydrogen fluoride, bromide.

Protective equipment for fire-fighting: Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions: Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

Cleanup: Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be

recovered and applied whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

SECTION 7: HANDLING AND STORAGE

Handling: Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers.

Storage: Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection: Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified Chemical Mechanical type filter system to remove a combination of particles, gas and vapors.

Hand protection: Chemical resistant protective gloves, Protective glove selection must be based on the users assessment of the workplace hazards.

Eye protection: Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection: Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid

Odor: Characteristic odor

SECTION 10: STABILITY AND REACTIVITY INFORMATION

Hazardous reactions: The product is chemically stable.

Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: TOXICOLOGICAL INFORMATION

For Hexythiazox tech

Acute Oral LD₅₀ (rat): >5000 mg/kg

Acute Dermal LD₅₀ (rat): >5000 mg/kg

Inhalation LC₅₀ (rat): >2.0 mg/L , 4 hour

Eye irritation: Moderately irritating to the unrinsed and rinsed eye, respectively.

Skin irritation: Moderately irritating to the skin (rabbits).

Skin sensitization: Not a skin sensitizer (guinea pig)

For Abamectin tech

Oral: Acute oral LD₅₀ (in sesame oil) for rats 10, mice 13.6 mg/kg; (in water) for rats 221 mg/kg.

Skin and Eye: Acute percutaneous LD₅₀ for rabbits >2000 mg/kg. Mild eye irritant;

non-irritating to skin (rabbits).

SECTION 12: ECOLOGICAL INFORMATION

For Hexythiazox tech

Effect on birds: Acute oral LD₅₀ for mallard ducks >2510, Japanese quail >5000 mg/kg.

Dietary LC₅₀ (8 d) for mallard ducks and bobwhite quail >5620 mg/kg diet.

Effect on fish: LC₅₀ (96 h) for rainbow trout >300, bluegill sunfish 11.6 mg/l; (48 h) for carp 3.7 mg/l.

Effect on daphnia: LC₅₀ (48 h) 1.2 mg/l.

Effect on bees: Not toxic to bees. LD₅₀ by topical application >200 µg/bee.

For Abamectin techn

Birds: Acute oral LD₅₀ for mallard ducks 84.6, bobwhite quail >2000 nmg/kg.

Fish: LC₅₀ (96 h) for rainbow trout 3.2, bluegill sunfish 9.6 µg/l.

Daphnia: EC₅₀ (48 h) 0.34 ppb.

Algae: EC₅₀ (72 h) for *Pseudokirchneriella subcapitata* >100 mg/l.

Other aquatic spp.: LC₅₀ (96 h) for pink shrimps (*Panaeus duorarum*) 1.6, blue crabs (*Callinectes sapidus*) 153 ppb.

Bees: Toxic to bees.

Worms: LC₅₀ (28 d) for earthworms 28 mg/kg soil.

SECTION 13: DISPOSAL CONSIDERATIONS

Container disposal: Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

SECTION 14: TRANSPORT INFORMATION

UN No.: 3082

Class: 9

Packing group: III

SECTION 15: REGULATORY INFORMATION

Safety Phrases:

S7 Keep container tightly closed.

S13 Keep away from food, drink and animal feeding stuffs.

S24/25 Avoid contact with skin and eyes.

S36/37 Wear suitable protective clothing and gloves.

SECTION 16: OTHER INFORMATION

Buyer assumes all responsibility for safety and use not in accordance with the product label instructions. 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. It should be read taking into account how the product is handled in your particular situation and how it is used in conjunction with other products.