

**MATERIAL SAFETY DATA SHEET
MILESTONE 250 SC**

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION
AND COMPANY/UNDERTAKING**

- * PRODUCT NAME: Milestone 250 SC
- * ADDRESS/ PHONE NO.: Shanghai Heben-Eastsun Medicaments Co. , Ltd.
No.2 Linbao Road, South of Tinglin Industrial Park,
Jinshan, Shanghai, China
TEL: 86 21 67231000
FAX: 86 21 67231333
- * EMERGENCY PHONE NO.: 86 21 67231000

2. COMPOSITION/INFORMATION ON INGREDIENT

- * PRODUCT DESCRIPTION: Fungicide

Ingredient	CAS No.:	Content (% w/v)
Azoxystrobin	131860-33-8	25%
Other non-hazardous ingredients		75%

3. HAZARDS IDENTIFICATION

- * Harmful by inhalation.
- * May cause sensitization by skin contact.
- * Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST-AID MEASURES

- * General advice: Have the product container, label or Material Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.
- * Inhalation: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Control Centre immediately.
- * Skin contact: Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.
- * Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.
- * Ingestion: If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.
- * Medical advice: There is no specific antidote available. Treat symptomatically.

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5. FIRE-FIGHTING PROTECTIVE EQUIPMENT

* Suitable Extinguishing Media:

Extinguishing media - small fires Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide extinguisher. DO NOT use direct jet of water.

Extinguishing media - large fires Use alcohol-resistant foam or water spray. DO NOT use direct jet of water.

* Hazards from Combustion Products: This product contains combustible organic components that may burn and decompose during a fire producing dense black smoke containing hazardous products of combustion. Combustion products are toxic and /or irritant. Exposure to decomposition products may be a hazard to health.

* Special Protective Precautions and Equipment for Fire Fighters: When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6. ACCIDENTAL RELEASE MEASURES

* Emergency Procedures: In case of spillage it is important to take all steps necessary to

- Avoid eye and skin contact
- Avoid contamination of waterways

* Methods and Materials for Containment and Clean Up: Procedure for spill

- (1) Keep all bystanders away
- (2) Wear full length clothing and PVC gloves
- (3) Reposition any leaking containers so as to minimise further leakage
- (4) Dam and absorb spill with an absorbent material (eg sand or soil)
- (5) Shovel the absorbed spill into drums
- (6) Disposal of the absorbed material will depend upon the extent of the spill
 - For quantities up to 50 L of product bury in a secure landfill site
 - For quantities greater than 50 L seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established
- (7) Decontaminate spill area with detergent and water and rinse with the smallest volume of water practicable

7. HANDLING AND STORAGE

* HANDLING Advice on safe handling: No special protective measures against fire required. Avoid contact with skin and eyes. When using, do not eat, drink or smoke. For personal protection see section 8.

* STORAGE Requirements for storage areas and containers: No special storage conditions required. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs.

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* Other data: Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

*** ENGINEERING MEASURES**

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. If airborne mists or vapors are generated, use local exhaust ventilation controls. Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit. Where necessary, seek additional occupational hygiene advice.

*** PERSONAL PROTECTIVE EQUIPMENT**

Protective measures: The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.

Respiratory protection: A particulate filter respirator may be necessary until effective technical measures are installed. Protection provided by air-purifying respirators is limited. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

Hand protection: Chemical resistant gloves should be used. Gloves should be certified to an appropriate standard. Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure. The breakthrough time of gloves varies according to the thickness, material and manufacturer. Gloves should be changed when breakthrough is suspected. Suitable material: Nitrile rubber.

Eye protection: Eye protection is not usually required. Follow any site specific eye protection policies.

Skin and body protection: Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation /penetration characteristics of the clothing material. Wash with soap and water after removing protective clothing. Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.).
Wear as appropriate: impervious protective suit.

9. PHYSICAL AND CHEMICAL PROPERTIES

* Form: liquid

* Colour: light yellow to yellow

* Odour: weak

* pH: 7.5 - 8.5 at 100 % w/v (20 °C)

: 5 - 9 at 1 % w/v

* Flash point: > 100 °C at 755 mmHg

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- * Oxidizing properties: not oxidizing
- * Explosive properties: Not explosive
- * Density: 1.11 g/cm³ at 20 °C
- * Miscibility: Miscible
- * Viscosity, dynamic: 169 - 646 mPa.s at 20 °C
 : 98.0 - 472 mPa.s at 40 °C
- * Surface tension: 27.9 mN/m at 20 °C

10. STABILITY AND REACTIVITY

- * Hazardous decomposition products: Combustion or thermal decomposition will evolve toxic and irritant vapors.
- * Hazardous reactions: None known. Hazardous polymerization does not occur. Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

- * Acute:
 - Oral toxicity: LOW TOXICITY Tests on rats indicate this product has a low toxicity following single doses of undiluted product. (LD₅₀ >2000 mg/kg)
 - Dermal toxicity: LOW TOXICITY Tests on rabbits indicate this has a low toxicity following skin contact with undiluted product (LD₅₀ >2000 mg/kg)
 - Inhalation: HARMFUL Tests on rats indicate this product is harmful due to inhalation of undiluted product. LC₅₀ (4h) = 2.06 mg/L air)
 - Skin irritation: SLIGHT IRRITANT Eye
 - irritation: MODERATE IRRITANT
 - Sensitisation: SENSITISER
- * Chronic:
 - Azoxystrobin technical have been extensively tested on laboratory mammals and in test-tube systems. No evidence was obtained of mutagenic, carcinogenic, teratogenic neurotoxic or reproductive effects.

12. ECOLOGICAL INFORMATION

- * Ecotoxicity: Moderately toxic to fish
 - LC₅₀ *Oncorhynchus mykiss* (rainbow trout), 1.76 mg/L, 96 h
 - LC₅₀ *Cyprinus carpio* (Carp), 4.2 mg/L, 96 h
- Highly toxic to algae
 - ErC₅₀ *Pseudokirchneriella subcapitata* (green algae), 0.59 mg/L, 72 h
- h Moderately toxic to certain aquatic invertebrates

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EC₅₀ *Daphnia magna* (Water flea), 1.1 mg/L, 48

h Slightly toxic to soil dwelling organisms:

LC₅₀ >1500 mg/kg soil in

earthworm Non toxic to bees:

Oral LD₅₀ > 500 µg/bee, Contact LD₅₀ >1800

µg/bee * Persistence and Degradability:

Azoxystrobin is stable in water and is not persistent in soil.

* Mobility:

Azoxystrobin has low to very high mobility in

soil. * Environmental Fate (Exposure):

Azoxystrobin is incorporated into organic molecules.

* Bioaccumulative Potential:

Azoxystrobin has medium potential for bioaccumulation.

13. DISPOSAL CONSIDERATIONS

* Product: Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

* Contaminated packaging: Empty remaining contents. Triple rinse containers. Empty containers should be taken for local recycling or waste disposal. Do not re-use empty containers.

14. TRANSPORT INFORMATION

* **Land transport**

UN-No.:

3082 Class: 9

Danger Label Number :

9 Packaging group: III

* **Sea transport**

UN-No.:

3082 Class: 9

Danger Label Number :

9 Packaging group: III

Marine pollutant : Marine pollutant

* **Air transport**

UN-No.:

3082 Class: 9

Danger Label Number :

9 Packaging group: III

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15. REGULATORY INFORMATION

* Symbol(s): Xn Harmful

N Dangerous for the environment

* R-phrases: R20 Harmful by inhalation.

R43 May cause sensitization by skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

* S-phrases: S 2 Keep out of the reach of children.

S13 Keep away from food, drink and animal feedingstuffs.

S20/21 When using do not eat, drink or smoke.

S35 This material and its container must be disposed of in a safe way. S36/37 Wear suitable protective clothing and gloves.

S57 Use appropriate container to avoid environmental contamination.

16. OTHER INFORMATION

* The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the product in terms of its safety requirements. The data does not signify and warranty with regard to the product's properties.