
Material safety data sheet

1. Chemical product and company identification

Production Identification: Biocide MBS 5050

MSDS date: 04/15

Manufacturer/Supplier:

Dongguan Baoxu Chemical Technology.,ltd.

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2. Hazards identification



Hazard pictograms

Signal word Danger

Hazard-determining components of labelling:

1,2-benzisothiazol-3(2H)-one

2-methylisothiazol-3(2H)-one

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Avoid release to the environment. P273

Wear protective gloves/protective clothing/eye protection/face protection. P280

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.

Rinse skin with water/shower.

P303+P361+P353

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P305+P351+P338

If skin irritation or rash occurs: Get medical advice/attention. P333+P313

Dispose of contents/container in accordance with local/regional/national/international regulations. P501

3. Component Information:

		CAS#	Amount (%)
1.	1, 2-benzisothiazolin-3-one	2634-33-5	4.0-6.0%
2.	2-Methyl-4-isothiazolin-3-one	2682-20-4	4.0-6.0%

4. First aid measures

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. If breathing is stopped, administer artificial respiration. Seek medical advice.

Skin contact: Get under a safety shower immediately. Wash affected skin areas thoroughly with soap and water. Remove contaminated clothing. Get prompt medical attention. Wash contaminated clothing thoroughly before reuse. Do not take clothing home to be laundered. Discard contaminated shoes, belts and other articles made of leather. Get prompt medical attention.

eyes contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a doctor immediately.

Ingestion: Do not induce vomiting. Give milk or water to drink. Immediately see a physician. If vomiting occurs spontaneously, keep airway clear. Never give anything by mouth to an unconscious person.

Note to Physician: It may not be advisable to induce vomiting. Possible mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock and convulsions may be necessary.

- Most important symptoms and effects, both acute and delayed Allergic skin reactions.
- Indication of any immediate medical attention and special treatment needed

Treat skin and mucous membrane with antihistamine and corticoid preparations.

5. Fire and Explosion Hazard Information:

Extinguishing media

Suitable extinguishing agents Water spray jet, extinguishing powder, CO₂, foam.

Unsuitable extinguishing agents for reasons of safety: None

Special hazards arising from the substance or mixture

In case of fire, toxic incineration products may be released such as:

Nitrogen oxides (NO_x)

Carbon monoxide (CO)

Sulphur dioxide (SO₂)

Advice for firefighters

Protective equipment: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire fighting water separately. It must not enter drains.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective clothing (see item 8).

Keep unprotected persons away.

When selecting the protective suit attention has to be paid to the complete and safe protection of skin and mucous membranes. Impermeable protective clothes, protective boots made of neoprene, complete face protection and nitrile-rubber-gloves with long tops should be worn.

Environmental precautions

As the product is hazardous for the aquatic environment, it must be prevented from reaching surface water.

Prevent from spreading (e. g. by enclosing with a ring of chemical absorbent).

Inform authorities in case of contamination of water or sewage system.

Methods and material for containment and cleaning up

Collect large amounts in suitable container. Cover the rest with absorbent, mix intensively and collect mechanically.

Suitable binder: multi-purpose absorbent.

Dispose of contaminated material as waste according to item 13.

Reference to other sections None.

7. Handling and storage

Precautions for safe handling

Ensure good exhaust ventilation at the workplace.

It is preferable to handle the product in a closed system.

Load carefully, avoid splashes.

Avoid air pollution at the workplace e.g. aerosol formation or product heating.

Risks to the safety and health of workers may not only be created by work involving chemicals but, inter alia by work equipment and the fitting-out of work-places. Those risks shall be identified and evaluated.

- Information about protection against explosion and fire: No special measures required.

Conditions for safe storage, including any incompatibilities

· Storage

· Requirements to be met by storerooms and containers: Use polyolefin containers.

· Information about storage in a common storage facility: None

· Further information about storage conditions:

At temperatures < 1°C BIT and BIT-sodium salts may crystallize. By heating up to max. 50 °C and stirring, the product may be dissolved again. The quality of the product will not be impaired.

Prevent release to the environment by adequate secondary containment design and use of appropriate spill control procedures.

· Minimum storage temperature: 5 °C

· Sensitivity against frost: Protect from frost.

Specific end use(s) No further relevant information available.

8. Exposure controls/ personal protection

Control parameters

- Components with critical values that require monitoring at the workplace: None established.
- Additional information: Information valid at the time of review of safety data sheet.

Exposure controls

- Personal protective equipment
- General protective and hygienic measures:
 - Use skin cream for skin protection.
 - Avoid contact with the eyes and the skin.
 - Wash hands during work breaks and at the end of the shift.
 - Provide skin protection plan.
- Respiratory protection: Not necessary if room is well ventilated.

Check the condition of protective gloves after each use for any damages like holes, cuts or tears.

Do not wear protective gloves longer than necessary.

After use of gloves apply skin-cleaning agents and skin cosmetics.

- Material of gloves: Nitrile rubber, NBR
- Penetration time of glove material:

Thickness: 0.4 mm; break-through time: 480 min; material: Nitrile; permeation: level 6

- Gloves made of the following materials are not suitable:

Gloves for mechanical protection do not provide protection against chemicals.

- Eye protection:

Safety goggles with CE label.

A device for rinsing eyes must be available at the work place.

- Body protection: Protective clothing.
- Risk management measures

The operators shall be instructed adequately.

The workplace shall be inspected regularly by competent personnel e.g. the safety representative.

9. Physical property information:

Information on basic physical and chemical properties

- General Information
 - Appearance:
 - Form: Liquid
 - Colour: Colorless to amber liquid solution
 - Odour: Mild
 - Odour threshold: Not relevant for safety
 - pH-value at 20 °C: 8.0-10.0
 - Melting point/Melting range: Not determined
 - Boiling point/Boiling range: ca. 100 °C (H₂O)
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• Flash point:	Not applicable.
• Self-inflammability:	Product is not self-igniting.
• Danger of explosion:	Product is not explosive.
• Vapour pressure at 20 °C:	23 hPa (H ₂ O)
• Density at 20 °C :	1.000-1.100 g/cm ³
• Relative density at 20 °C:	1.044 g/cm ³ (OECD 109 - S 2699)
• Solubility in / Miscibility with Water:	Fully miscible
• Viscosity:	
• dynamic at 20 °C:	1.45 mPas (OECD 114 - S 2632)
• kinematic at 20 °C:	1.39 m ² /s (OECD 114 - S 2632)

10. Stability and reactivity

Reactivity

Up to now, no dangers resulting from a reactivity of the mixture have been identified.

Chemical stability

- Conditions to be avoided:

Before handling, the product should not be diluted or mixed with other chemicals, in order to avoid any negative influences on the ingredient(s).

- Minimum shelf life: 12 months from production date.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: None, if storage and handling is done according to specification.

11. Toxicological information

Information on toxicological effects

- Acute toxicity:
- LD/LC50 values that are relevant for classification:

Oral ATE mix > 5000 mg/kg (calculated)

Dermal ATE mix > 5000 mg/kg (calculated)

Inhalation ATE mix dust/mist > 5 mg/l, 4h (calculated)

Evaluation: Based on the available data the classification criteria for hazard classes acute toxicity are not fulfilled.

- Primary irritant effect:
 - on the skin: Causes skin irritation (Assessment outlined in Annex I, CLP1272/2008/EC).
 - on the eye: Causes serious eye damage (Assessment outlined in Annex I, CLP 1272/2008/EC).
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- Sensitisation: Sensitization possible by skin contact.
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12. Ecological information

Environmental Toxicity: This material is toxic to fish

Evaluation: Based on the available data the classification criteria for hazard classes aquatic acute (short term) toxicity are not fulfilled.

Harmful to aquatic life with long lasting effects.

- Evaluation: Depending on concentration, toxic effects on activated sludge organisms

CONTAINERS HAZARDOUS WHEN EMPTY.

Evaluation: The component(s) is (are) rapidly biodegradable.

Evaluation: The substances are biodegradable/eliminable in activated sludge units.

Bioaccumulative potential

Evaluation: Not worth-mentioning accumulating in organisms

Other adverse effects Any other adverse effects on the environment are not expected.

13. Disposal considerations

L(E)C 50 mix, alg 10-100 mg/l (Pseudokirchneriella subcapitata) (bridging)

L(E)C 50 mix, dap 10-100 mg/l (Daphnia) (bridging)

L(E)C 50 mix, fish 1-10 mg/l (rainbow trout) (bridging)

• Recommendation:

Must be specially treated under adherence to official regulation.

Appropriate disposal operations according to Directive 2008/98/EC on waste:

Incineration on land.

European waste catalogue

16 00 00 WASTES NOT OTHERWISE SPECIFIED IN THE LIST

16 03 00 off-specification batches and unused products

16 03 05* Organic wastes containing dangerous substances

• Recommendation:

Remove all product from packaging and clean thoroughly before recycling.

• **Recommended cleaning agent:** Water, if necessary with cleaning agent.

14. Transport information

China: Non-Regulated

IMO: No data available

IATA: No data available

15. Regulatory information

Inventory of existing chemical substance (SEPA): The hazardous components in this product are all listed.

List of dangerous Chemicals (SAWS et al, 2002 ed): none

Identification of major hazard installations (GB18218-2000): none.

List of high toxic substance (2003): none.

The National Catalogue of Hazardous Wastes (SEPA, 10998): none.

16. Other information

The information on this data sheet represents our current data to proper use in handling of this product under normal conditions, and only as a safety guideline, not as a product specification. No warranty, either expressed or implied, is hereby made. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.