

Material Safety Data Sheet

1 Identification of the substance/mixture and of the company/undertaking

Product Name	BIT-85
Application	Industrial Microbicide
Uses advised against	No further relevant information available.
Manufacturer/Supplier	Shanghai Exquisite Biochemical Co., Ltd Address: 1st Floor, Building 1, No 508, Chuanhong Road, Pudong New Area, Shanghai Tel: 0086-21-6878 8136

2 Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]

Classification	Acute toxicity, Oral (Category 4) Skin irritation (Category 2) Serious eye damage (Category 1) Skin sensitization (Category 1) Acute aquatic toxicity (Category 1)
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Label elements

Hazard pictograms



Signal word Danger

Hazard-determining components of labelling: 1, 2-Benzisothiazolin-3-one

Hazard statements	H302: Harmful if swallowed. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H318: Causes serious eye damage. H400: Very toxic to aquatic life.
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Precautionary statements	P273: Avoid release to the environment. P280: Wear protective gloves/ protective clothing/ eye protection/ face protection. P305 IF IN EYES: Rinse cautiously with water for several minutes. + P351: Remove contact lenses, if present and easy to do. Continue + P338: rinsing.
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Supplemental Hazard Statements None.

3 **Composition/information on ingredients**

Chemical characterization Mixtures
Component

2634-33-5	1, 2-Benzisothiazolin-3-one	≥85%
7732-18-5	Water	≤15%

* All concentrations are percent by weight. Other components are water.

4 **First- aid measures**

Description of first aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Eye Contact Immediately flush eyes with a large amount of water for at least 15minutes. Get prompt medical attention.

Skin Contact Wash affected skin areas thoroughly with soap and water immediately after exposure. Remove and wash contaminated clothing thoroughly. Do not take clothing home to be laundered. Discard contaminated shoes, belts and other articles made of leather. Get prompt medical attention.

Ingestion If swallowed, give 2 glasses of water to drink. Immediately see a physician. Never give anything by mouth to an unconscious person.

Note to Physician Material is corrosive. It may not be advisable to induce vomiting. Possible mucosal damage may contraindicate the use of gastric lavage.

Most important symptoms and effects, both acute and delayed To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Indication of any immediate medical attention and special treatment needed No data available.

5 **Fire-fighting measures**

Extinguishing media

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

Special hazards arising from the substance or mixture Nitrogen oxides (NO_x), Carbon oxide (CO), Sulphur oxides

Advice for firefighters Wear self-contained breathing apparatus and protective suit.

Further information Cool containers / tanks with water spray. Minimize exposure. Do not breathe fumes.

6 **Accidental release measures**

Personal precautions,
protective equipment
and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Protective clothing, including chemical splash goggles, nitrile or butyl rubber full length gloves, rubber apron, or clothing made of nitrile or butyl rubber, and rubber overshoes must be worn during spill clean-ups and deactivation of this material. If material comes in contact with the skin during clean-up operations, immediately remove all contaminated clothing and wash exposed skin areas with soap and water.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and material for
containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7 Handling and storage

See section 13 for further information.

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Precautions for safe handling

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Conditions for safe storage,
including any incompatibilities

No data available.

8 Exposure controls/personal/protection

Specific end uses

Control parameters

Components with workplace control parameters

Engineering Controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Use local exhaust ventilation with a minimum capture velocity of 150 ft/min. (0.75 m/sec.) at the point of dust or mist evolution. Refer to the current edition of Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

	The gloves listed below provide protection against permeation: Nitrile /Butyl rubber. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Body Protection	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection	Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Other protective equipment	Facilities storing or utilizing this material should be equipped with an ewewash facility and a safety shower.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

a) Appearance: Form: Solid Color: Faintly yellow	b) Odor: No data available	c) Odour threshold: No data available
	d) pH-value: No data available	e) Melting point (BIT) : 154-158°C
f) Boiling point/Boiling range: Not Determined	g) Flash point: Not applicable	h) Evaporation rate: Not determined
i) Flammability (solid, liquid): Not applicable	j) Upper/lower flammability or explosive limits: Not applicable	
k) Vapor pressure: Not applicable	l) Vapour density: Not applicable	m) density at 20°C: Not Determined
n) Water solubility: insoluble	o) Partition coefficient (K_{ow}): Not Determined	p) Autoignition temperature: Not applicable
q) Decomposition temperature: Not Determined	r) Viscosity: Not Determined	s) Explosive properties: No an explosion hazard
Other information	No further relevant information available.	

10 Stability and reactivity

Reactivity	No data available
Instability	This material is considered stable under specified conditions of storage, shipment and/or use. See section 7, Handling and storage, for specified conditions.
Possibility of hazardous reactions	No dangerous reactions known. Hazardous Polymerization will not occur.
Thermal decomposition /	No data available.

Conditions to be avoided

Incompatibility	Avoid contact with the following: oxidizing agents ,reducing agents ,amines , mercaptans. Avoid contact with: Strong acids. Strong bases. Strong oxidizers. Avoid contact with metals such as: Aluminum. Brass. Copper. Copper alloys. Mild steel.
Hazardous decomposition products	Thermal decomposition may yield the following: oxides of nitrogen, sulfur dioxides.

11 Toxicological information

Acute toxicity	Acute Oral LD50, rat, 1020mg/kg
Chronic toxicity and Carcinogenicity	No data available
Mutagenicity	No data available
Reproductive/Teratology toxicity	No data available
Sensitization	
Skin Irritation	May cause allergic skin reaction.
Eye Irritation	Causes severe eye irritation.

12 Ecological information

Biodegradability	No data available
Bioaccumulative	Accumulation in aquatic organisms is unlikely.
Ecotoxicity effects	
Toxicity to fish	LC50 Rainbow trout (<i>Oncorhynchus mykiss</i>) 96 h, 1.9 mg/L LC50 Sheepshead minnow <i>Cyprinodon variegatus</i> () 96 h, 19 mg/L
Toxicity to algae	Static test EC50 <i>Pseudokirchneriella subcapita</i> 96 h, 0.38 mg/L EC50 Marine algae (<i>Skeletonema costatum</i>) 96 h, 0.4 mg/L
Toxicity to bacteria	Respiration inhibition of activated sludge EC50 Bacteria (active sludge) 3h,28.52 mg/L
Toxicity to aquatic invertebrates	EC50 <i>Daphnia magna</i> 48 h, 3.7 mg/L LC50 Mysid shrimp (<i>Mysidopsis bahia</i>) 96 h, 1.9 mg/L
Ozone depletion potential	No report proves the ozone depletion potential
Photochemical ozone creation potential	No report proves the Photochemical ozone creation potential

13 Disposal considerations

Methods of disposal	This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 91/689/EEC. Any disposal practices must be in compliance with all
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national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required. Do not dump into any sewers, on the ground, or into any body of water.

Contaminated packaging

Dispose of as unused product.

14 Transport information

DOT

Proper shipping name	Environmentally hazardous substance, Solid, n.o.s. (1,2-Benzisothiazolin-3-one)
UN-Number	UN 3077
Class	9
Packing group	III

IMO/IMDG

Proper shipping name	Environmentally hazardous substance, Solid,n.o.s. (1,2-Benzisothiazolin-3-one)
UN-Number	UN 3077
Class	9
Packing group	III

IATA-DGR

Proper shipping name	Environmentally hazardous substance, Solid,n.o.s. (1,2-Benzisothiazolin-3-one)
UN-Number	UN 3077
Class	9
Packing group	III

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations

15 Regulatory information

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Signal word

Danger

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Hazard statements

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Precautionary statements

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+ P351: Remove contact lenses, if present and easy to do. Continue

+ P338: rinsing.

Supplemental Hazard Statements

None.