

Material Safety Data Sheet (BIT-10)

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

Product Name	BIT-10
Application	Industrial Microbicide
Uses advised against	No further relevant information available.
Supplier	SINOTRUST CHEMICAL CO. LTD Add: NO.813 SELF TRADE BUILDING F.T.Z. DALIAN CHINA TEL: 0086-139 9868 3145 Email:sales@sinotrustedchemical.com
Emergencies phone	0086-139 9868 3145

2 Hazards identification

Classification of the substance or mixture

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

Classification Skin corrosion/irritation (Category 1)
Serious eye damage/ eye irritation (Category 1)
Skin sensitization (Category 1)

Label elements

Hazard pictograms



Signal word Danger

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

Hazard statements
H314: Causes severe skin burns and eye damage.
H317: May cause an allergic skin reaction.
Causes digestive tract burns

Hazard Not Otherwise Classified (HNOC)

Precautionary statements
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P261: Avoid breathing vapor.
P264: Wash hands thoroughly after handling.
P272: Contaminated work clothing should not be allowed out of the workplace.
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P301+P330+ P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+ P363: IF ON SKIN (or hair): Take off immediately all

contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse.

P302+P350: IF ON SKIN: Wash with plenty of soap and water.

P305+P351+ P338+ P313: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Supplemental Hazard Statements None.

3 Composition/information on ingredients

Chemical characterization Mixtures
Component

2634-33-5	1, 2-Benzisothiazolin-3-one	≥8.5%
1310-58-3	Potassium hydroxide	3.0-4.0%
7732-18-5	Water	Balance

* 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	m 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, CO ₂ , 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.
See section 13 for further information.	

7 Handling and storage

Precautions for safe handling	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.
Conditions for safe storage, including any incompatibilities	Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Specific end uses	No data available.

8 Exposure controls/personal/protection

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 eyewash facility and a safety shower.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

a) Appearance: Form: Liquid Color: Tan	b) Odor: No data available	c) Odour threshold: No data available
f) Boiling point/Boiling range: Not Determined	d) pH-value: ≥ 9.0 (10% water solution)	e) Melting point (BIT) : 154-158°C
i) Flammability (solid, liquid): Not applicable	g) Flash point: Not applicable	h) Evaporation rate: Not determined
k) Vapor pressure: Not applicable	j) Upper/lower flammability or explosive limits: Not applicable	
n) Water solubility: soluble	l) Vapour density: Not applicable	m) density at 20°C: ca. 1.02 g/cm ³
q) Decomposition temperature: Not Determined	o) Partition coefficient (K_{ow}): Not Determined	p) Autoignition temperature: Not applicable
Other information	r) Viscosity: Not Determined	s) Explosive properties: No an explosion hazard
	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 / Conditions to be avoided	No data available.
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 oral toxicity	LD50 ,Rat: 1020 mg/kg (1,2-Benzisothiazolin-3-one); LD50 ,Rat: 273 mg/kg (Potassium Hydroxide)
Chronic toxicity	May cause sensitisation by skin contact.
Repeated Dose Toxicity	Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.
Carcinogenicity	No relevant information found.
Developmental Toxicity	Active ingredient did not cause birth defects in laboratory animals.
Reproductive toxicity	In animal studies, active ingredient did not interfere with reproduction.
Genetic Toxicology	In vitro genetic toxicity studies were negative for component(s) tested. Genetic toxicity studies in animals were negative for component(s) tested.

12 Ecological information

Biodegradability	No data available
Bioaccumulative	No data available
Ecotoxicity effects	
Toxicity to fish	LC50, rainbow trout (Oncorhynchus mykiss), static renewal, 96h 1.49-2.10 mg/L
Toxicity to daphnia	EC50, Daphnia magna, 48h, immobilization, 0.61-3.35 mg/L
Toxicity to algae	ErC50, green alga Pseudokirchneriella subcapitata (formerly known as Selenastrum capricornutum), Growth rate inhibition, 72 h, 0.037 mg/L
Other adverse effects	Material is very toxic to aquatic organisms (LC50/EC50/IC50 below 1 mg/L in most sensitive species).

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
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91/689/EEC. Any disposal practices must be in compliance with all 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	Corrosive liquid, n.o.s. (1, 2-Benzisothiazolin-3-one , Potassium hydroxide)
UN-Number	UN 1760
Class	8
Packing group	II

IMO/IMDG

Proper shipping name	Corrosive liquid, n.o.s. (1, 2-Benzisothiazolin-3-one , Potassium hydroxide)
UN-Number	UN 1760
Class	8
Packing group	II

IATA-DGR

Proper shipping name	Corrosive liquid, n.o.s. (1, 2-Benzisothiazolin-3-one , Potassium hydroxide)
UN-Number	UN 1760
Class	8
Packing group	II

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

15 Regulatory information

Classification of the substance or mixture

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

Classification	Skin corrosion/irritation (Category 1) Serious eye damage/ / eye irritation (Category 1) Skin sensitization (Category 1)
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Label elements

Hazard pictograms



Signal word

Danger

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

Hazard statements

H314: Causes severe skin burns and eye damage.
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Causes digestive tract burns.

<p>Hazard Not Otherwise Classified (HNOC) Precautionary statements</p>	<p>P280: Wear protective gloves/ protective clothing/ eye protection/ face protection. P261: Avoid breathing vapor. P264: Wash hands thoroughly after handling. P272: Contaminated work clothing should not be allowed out of the workplace. P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P301+P330+ P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+ P363: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. P302+P350: IF ON SKIN: Wash with plenty of soap and water. P305+P351+ P338+ P313: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.</p>
<p>Supplemental Hazard Statements</p>	<p>None.</p>

16 Other information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Abbreviations and acronyms

CAS	Chemical Abstracts Service (Registry Number)
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
IC50	50% concentration of inhibition
LC50	LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals
EC50	50% concentration of maximal effect
LD50	LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals

* Data compared to the previous version altered.