

# Material Safety Data Sheet

## MIT-20

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

Product Name MIT-20  
Application Industrial Microbicide  
Uses advised against No further relevant information available.  
Supplier Name:  
Company name: SINOTRUST CHEMICAL CO. LTD  
Add: NO.813 SELF TRADE BUILDING F.T.Z. DALIAN CHINA  
TEL: 0086-139 9868 3145 Email: sales@sinotrustchemical.com  
Emergencies phone: 0086-139 9868 3145

### 2. Hazards identification

Classification of the substance or mixture  
Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]  
Acute toxicity, Oral (Category 4) , H302  
Acute toxicity, Inhalation (Category 3) , H331  
Skin corrosion (Category 1B) , H314  
Skin sensitization (Category 1) H317  
Specific target organ toxicity - single exposure (Category 3) , H335  
Acute aquatic toxicity (Category 1) , H440  
Classification according to EU Directives 67/548/EEC or 1999/45/EC  
Harmful if swallowed. Toxic by inhalation. Causes burns. May cause sensitization by skin contact.  
Very toxic to aquatic organisms.  
Label elements  
Labelling according Regulation (EC) No 1272/2008 [CLP]  
Hazard pictograms



Signal word

Danger

Hazard-determining components of labelling: 2-Methyl-4-isothiazolin-3-one

Hazard statements

H302: Harmful if swallowed.  
H314: Causes severe skin burns and eye damage.  
H317: May cause an allergic skin reaction.  
H331: Toxic if inhaled.  
H335: May cause respiratory irritation.  
H400: Very toxic to aquatic life.

**Precautionary statements**

P261: Avoid breathing dust.  
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.  
P310: Immediately call a POISON CENTER or doctor/ physician.

**Supplemental Hazard Statements** None.

According to European Directive 67/548/EEC as amended.

**Hazard symbols**



Toxic



Dangerous for the environment

**Contains:** 2-Methyl-4-isothiazolin-3-one

**R-phrases**

R22: Harmful if swallowed.  
R23: Toxic by inhalation.  
R34: Causes burns.  
R43: May cause sensitization by skin contact.  
R50: Very toxic to aquatic organisms.

**S-phrases**

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S36/S37/S39: Wear suitable protective clothing, gloves and eye/face protection.  
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S60: This material and its container must be disposed of as hazardous waste.  
S61: Avoid release to the environment. Refer to special instructions/ Safety data sheets.

**Other hazards** NONE

### 3. Composition/information on ingredients

Chemical characterization Mixtures

Description: 2-Methyl-4-isothiazolin-3-one

Component:

2682-20-4	2-Methyl-4-isothiazolin-3-one	≥20%
7732-18-5	Water	Balance

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

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#### 4. First- aid measures

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##### Description of first aid measures

Inhalation	Move subject to fresh air.
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	Burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.
Indication of any immediate medical attention and special treatment needed	No data available.

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#### 5. Fire-fighting measures

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##### Extinguishing media

Suitable extinguishing agents	Water spray jet, extinguishing powder, CO2, foam.
Special hazards arising from the substance or mixture	Nitrogen oxides (NOx) ,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.

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#### 6. Accidental release measures

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Personal precautions, protective equipment	Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel
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and emergency procedures	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	The maximum recommended storage temperature for this material is 55°C/131F. The minimum recommended storage temperature for this material is 10°C/32F. Store in a well ventilated area. Do not store this material in containers made of the following: steel.
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**

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|---|---|---|
| a) Appearance:<br>Form: Liquid<br>Color: Colorless to pale yellow | b) Odor: No data available<br>d) pH-value: 4.0-6.0              | c) Odour threshold: No data available<br>e) Melting point(MIT) :No data |
| f) Boiling point/Boiling range:<br>100°C ( 212 °F ) Water         | g) Flash point: Not applicable                                  | h) Evaporation rate: Not determined                                     |
| i) Flammability (solid, liquid):<br>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:≥1.02 g/cm <sup>3</sup>                              |
| n) Water solubility: soluble<br>Not Determined Not applicable     | o) Partition coefficient (K <sub>ow</sub> ):                    | p) Autoignition temperature:  |
| q) Decomposition temperature:<br>Not Determined                   | r) Viscosity: Not Determined<br>t) VOC's: No data               | s) Explosive properties:<br>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.

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Possibility of hazardous reactions	No dangerous reactions known.
Thermal decomposition/ Conditions to be avoided	No data available
Incompatibility	Avoid contact with the following: oxidizing agents ,reducing agents ,amines , mercaptans.
Hazardous decomposition products	Thermal decomposition may yield the following: oxides of nitrogen, sulfur dioxides.

## 11. Toxicological information

Acute oral toxicity	LD50 ,Rat: No data available
Acute inhalation toxicity	Rat, 4h: No data available
Acute dermal toxicity	LD50 Dermal Rabbit: No data available
Skin irritation	Rabbit , Corrosive (product)
Eye irritation	Rabbit , Corrosive (product)
Respiratory or skin sensitization	May cause sensitization by skin contact.
Germ cell mutagenicity	
Carcinogenicity	Non- carcinogenicity. No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Mutagenicity	Collective data indicate non-mutagenic.
Teratogenicity	Not teratogenic.
Sensitization	Skin sensitizer.
Reproductive toxicity	
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
Inhalation	May cause respiratory irritation.
Aspiration hazard	No data available
Potential health effects	
Inhalation	Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion	Harmful if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin burns.
Eyes	Causes burns.
Signs and Symptoms of Exposure	Burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

## 12. Ecological information

Elimination information (persistence and degradability)

Biodegradability                      Biodegradation (aquatic metabolism): CAS # 2682-20-4 t 1/2 aerobic = 9.1h

Physico-chemical removability      Activated Sludge Respiration Inhibition EC50: 41 mg/ L ai

Ecotoxicity effects

Toxicity to fish                          LC50 Oncorhynchus mykiss (rainbow trout) 96 h 4.77 - 6.0 mg/L Active ingredient

Toxicity to fish                          LC50 Bluegill sunfish 96 h 10 mg/L Active ingredient

Toxicity to algae                        EC50 Algae (Selenastrum capricornutum) 0.22 mg/L Active ingredient

Toxicity to aquatic invertebrates    EC50 Daphnia magna 48 h 0.93 - 1.9 mg/L Active ingredient

## 13. Disposal considerations

Methods of disposal                      When a decision is made to discard this material as supplied, it is classified as a RCRA hazardous waste with the characteristic of corrosive. Incinerate liquid and contaminated solids in accordance with local, state, and federal regulations (See 40 CFR 268). Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging                Dispose of as unused product.

## 14. Transport information

DOT

Proper shipping name                      Corrosive, liquid, toxic, n.o.s.  
2-Methyl-4-isothiazolin-3-one)

UN-Number                                  UN 2922

Class    8(6.1)

Packing group                                II

IMO/ IMDG

Proper shipping name                      Corrosive, liquid, toxic, n.o.s.  
(2-Methyl-4-isothiazolin-3-one)

UN-Number                                  UN 2922

Class    8(6.1)

Packing group                                II

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

## 15. Regulatory information

The product is classified and labelled according to Regulation (EC) No 1272/2008 [EU-GHS/CLP] and European Directive 67/548/EEC as amended.

Labelling according Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms



Signal word

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Hazard statements

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H317: May cause an allergic skin reaction.

H331: Toxic if inhaled.

H335: May cause respiratory irritation.

H400: Very toxic to aquatic life.

Precautionary statements

P261: Avoid breathing dust.

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.

P310: Immediately call a POISON CENTER or doctor/ physician.

Supplemental Hazard Statements

None.

According to European Directive 67/548/EEC as amended.

Hazard symbols



Toxic



Dangerous for the environment

Contains:

2-Methyl-4-isothiazolin-3-one

R-phrases

R22: Harmful if swallowed.

R23: Toxic by inhalation.

R34: Causes burns.



S-phrases	R43: May cause sensitization by skin contact.
	R50: Very toxic to aquatic organisms.
	S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S36/S37/S39: Wear suitable protective clothing, gloves and eye/face protection.
	S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
	S60: This material and its container must be disposed of as hazardous waste.
Other hazards	S61: Avoid release to the environment. Refer to special instructions/ Safety data sheets.
	NONE

For professional users only.

EU. EINECS(EINECS): This product satisfies all the requirements of the European Inventory of Existing Chemical Substances (EINECS).

US. Toxic Substances Control Act (TSCA) : This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from U.S. Toxic Substances Control Act (TSCA) Inventory listing requirements.

## 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
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
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.