

# Material Safety Data Sheet

## CMIT/MIT 14M

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

**Product Name:** CMIT/MIT 14M  
**Chemical Name:** 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE  
**Application :** Industrial Microbicide  
**Uses advised against** No further relevant information available.

**Supplier details:**

Company name: 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 and labelling according Regulation (EC) No 1272/2008 [CLP]

Classification

Acute toxicity, Oral (Category 4) ,  
Acute toxicity, Inhalation (Category 5)  
Acute toxicity, Dermal (Category 3)  
Skin corrosion (Category 1A) ,  
Serious eye damage (Category 1)  
Acute aquatic toxicity (Category 1)  
Chronic aquatic toxicity (Category 1)

Label elements

Hazard pictograms



Signal word

Danger

Hazard-determining components 5-Chloro-2-methyl-4-isothiazolin-3-one/2-methyl-4-isothiazolin-3-one 2.5%

Of labelling:

Hazard statements

H302: Harmful if swallowed.  
H311: Toxic if contact with skin.  
H314: Cause severe skin burns and eye damage.  
H317: May cause an allergic skin reaction.

H331: Toxic if inhaled.  
 H410: Toxic to aquatic life with long lasting effects.

**Precautionary statements**

P280: Wear protective gloves/protective clothing/eye protection/face protection.  
 P303/P361/P353: If on skin (or hair):Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P305/P351/P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P314: Get medical advice/attention if you feel unwell.  
 P391/P501: Collect spillage/Dispose of contents/container.

Supplemental Hazard Statements NONE.

**3. Composition/information on ingredients**

Chemical characterization      Mixtures  
 Component

|            |  |            |
|------------|--|------------|
| 26172-55-4 | 5-Chloro-2-methyl-4-isothiazolin-3-one | 10.0-12.0% |
| 2682-20-4  | 2- methyl-4-isothiazolin-3-one         | 3.0-5.0%   |
| 7647-14-5  | Sodium chloride                        | 6.0-8.0%   |
| 7631-99-4  | Sodium nitrate                         | 18.0-22.0% |
| 7732-18-5  | Water                                  | Balance    |

**4. First- aid measures**

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.  |
| Most important symptoms and effects, both acute and delayed | Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special and treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.          |
| Note to Physician   | Material is corrosive. It may not be advisable to induce vomiting. Possible mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock and convulsions maybe necessary.   |

**5. Fire-fighting measures**

|   |   |
|---|---|
| Extinguishing media                                   |   |
| Suitable extinguishing agents                         | Water spray jet, extinguishing powder, CO <sub>2</sub> , foam.  |
| Fire / Explosion Hazards                              | During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. |
| Special hazards arising from the substance or mixture | Nitrogen oxides (NO <sub>x</sub> ) ,Sulphur oxides ,Hydrogen chloride                                     |
| Advice for firefighters                               | Wear self-contained breathing apparatus and protective suit.  |
| Further information                                   | Cool containers / tanks with water spray. Minimize exposure.<br>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.<br>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 1°C/32F. Store in a well ventilated area. Do not store this material in containers made of the following: steel. |
| Incompatible Materials for Storage                           | Reducing agents, oxidizers, amines, mercaptans.   |

## 8. Exposure controls/personal/protectio

|                    |  |
|--------------------|--|
| Control parameters | Components with workplace control parameters |
|--------------------|--|

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|--|---|
| 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<br>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.<br>The gloves listed below provide protection against permeation:<br>Nitrile /Butyl rubber.<br>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.  |
| 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

|   |  |  |
|---|--|--|
| a) Appearance:<br>Form: Liquid<br>Color: Pale yellow to amber | b) Odor: Pungent<br>d) pH-value: 2.0-4.0 | c) Odour threshold: No data available<br>e) Melting point: -33°C (-27.4 °F ) |
| f) Boiling point/Boiling range:<br>100°C (212.00 °F ) Water   | g) Flash point: Not applicable.          | h) Evaporation rate:<br><1.0 (n-Butyl acetate=1)                             |



- i) Flammability (solid, liquid): Not applicable  
 j) Upper/lower flammability or explosive limits: Not applicable
- k) Vapor pressure: No data  
 l) Vapour density: Not applicable  
 m) Relative density: 1.15-1.30 g/mL
- n) Water solubility: soluble  
 o) Partition coefficient (Kow): 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.   |
| Thermal decomposition / Conditions to be avoided | Stable under recommended storage conditions.  |
| Incompatibility                                  | Product will not undergo polymerization.<br>Avoid contact with the following: oxidizing agents ,reducing agents ,amines , mercaptans.                         |
| Hazardous decomposition products                 | Nitrogen oxides (NOx), sulphur oxides, hydrogen chloride.   |

## 11. Toxicological information

|  |  |
|--|--|
| Product animal toxicity                  |  |
| Acute oral toxicity                      | LD50 ,Rat: 457 mg/kg   |
| Acute inhalation toxicity                | Rat, 4h: 0.33mg/L Active ingredient  |
| Acute dermal toxicity                    | LD50 Dermal Rabbit: 660 mg/kg  |
| Skin irritation                          | Rabbit , Corrosive (product)   |
| Eye irritation                           | Rabbit , Corrosive (product)   |
| Respiratory or skin sensitization        | May cause sensitization by skin contact.   |
| Carcinogenicity                          | Non- carcinogenicity. This chemical is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or E EPA.       |
| Mutagenicity                             | Collective data indicate non-mutagenic.  |
| Teratogenicity                           | Not teratogenic  |
| Sensitization                            | Skin sensitizer.   |
| Acute toxicity                           | This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory tract.            |
| Chronic toxicity                         | Not known or reported to cause subchronic or chronic toxicity.   |
| Reproductive and Developmental Toxicity: | This chemical has been tested in laboratory animals and there was no evidence of reproductive toxicity, teratogenicity, or developmental toxicity. |

## 12. Ecological information

|  |  |
|--|--|
| Biodegradability                                     | CAS # 26172-55-4t 1/2 anaerobic = 4.8 h, CAS # 26172-55-4t 1/2 aerobic = 17.3h, CAS # 2682-20-4 t 1/2 aerobic = 9.1h |
| Physico-chemical removability<br>Ecotoxicity effects | Activated Sludge Respiration Inhibition EC50: 4.5 mg/ L ai   |
| Toxicity to fish                                     | LC50 Oncorhynchus mykiss (rainbow trout) 96 h 0.19 mg/L Active ingredient  |
| Toxicity to fish                                     | LC50 Lepomis macrochirus (Bluegill sunfish) 96 h 0.28 mg/L Active ingredient   |
| Toxicity to algae                                    | EC50 Marine algae (Skeletonema costatum) 0.003 mg/L Active ingredient  |
| Toxicity to algae                                    | EC50 algae (Selenastrum capricornutum) 0.018 mg/L Active ingredient  |
| Toxicity to aquatic invertebrates                    | EC50 Daphnia magna 48 h 0.16 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. (5-Chloro-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. (5-Chloro-2-methyl-4-isothiazolin-3-one) |
| UN-Number            | UN 2922   |
| Class                | 8/6.1   |
| Packing group        | II  |

### IATA-DGR

|                      |   |
|----------------------|---|
| Proper shipping name | Corrosive, liquid, toxic, n.o.s. (5-Chloro-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 following statutes, regulations and standards have the related prescribes on chemicals in terms of safe use, storage, transportation, loading and unloading, classification and symbol etc.

Provisions on the Environmental Administration of New Chemical Substances.

The Regulation on Chemicals Safe Use at Working Site

Law on Prevention and Control of Environmental Pollution Caused by Solid Waste.

The rule on dangerous chemicals safety management

General rule of classification and hazard communication of chemicals (GB 13690)

Occupational Exposure Limits for Hazardous Agent in The workshop Chemical Hazardous Agents(GBZ 2.1).

Classification and Code of Dangerous Goods (GB 6944)

List of Dangerous Goods (GB 12268)

China. Inventory of Existing Chemical Substances in China (IECSC):

All intentional components are listed on the inventory, are exempt, or are supplier certified

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.