

Material Safety Data Sheet

CMIT/MIT 14

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

Product Name: CMIT/MIT 14; ISOTHIAZOLINONE
Chemical Name: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE
Application : Industrial Microbicide
Uses advised against No further relevant information available.
Formula: C₄H₅NOS.C₄H₄CINOS

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
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2. Hazards identification

Classification of the substance or mixture

Classification and labelling according the Globally Harmonized System of Classification and Labeling of Chemicals (GHS, Rev.6, 2015, UN)

Classification

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

Label elements

Hazard pictograms



Signal word

Hazard statements

Danger

H302: Harmful if swallowed.

H312: Harmful if contact with skin.

H314: Cause severe skin burns and eye damage.

H317: May cause an allergic skin reaction.



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H332: Harmful if inhaled.

H410: Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264: Wash skin thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P272: Contaminated work clothing should not be allowed out of the workplace.

P273: Avoid release to the environment.

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

Response

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

P308 + P311: IF exposed or concerned: Call a POISON CENTER/doctor.

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

P362 + P364: Take off contaminated clothing and wash it before reuse.

P391: Collect spillage.

Storage

P405 Store locked up.

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%
7786-30-3	Magnesium chloride	5.0-7.0%
10377-60-3	Magnesium nitrate	18.0-22.0%
26542-23-4	4,5-Dichloro-2-methyl-4-isothiazolin-3-one	≤0.1
7732-18-5	Water	Balance

4. First- aid measures

Description of first aid measures

Inhalation Move subject to fresh air.



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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 ₂ , 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 _x) ,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. 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	Pick up and arrange disposal without creating dust. Sweep up and

containment and cleaning up shovel. Keep in suitable, closed containers for disposal.

See section 13 for further information.

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.

7. Handling and storage

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 oC /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

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

a) Appearance: Form: Liquid Color: Yellow or yellow green	b) Odor: Pungent d) pH-value: 2.0-4.0	c) Odour threshold: No data available e) Melting point: -33°C (-27.4 °F)
f) Boiling point/Boiling range: 100 °C (212.00 °F) Water	g) Flash point: Not applicable.	h) Evaporation rate: <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: 0.62 (Air=1)	m) Relative density: 1.27-1.33 g/mL
n) Water solubility: soluble	o) Partition coefficient (Kow): Not Determined	p) Autoignition temperature: Not applicable
q) Decomposition temperature: Not Determined	r) Viscosity: 16.000 CPS (77°F)	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. Product will not undergo polymerization.
Incompatibility	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: 465mg/kg (male) 393 mg/kg (female)



Acute inhalation toxicity	Rat, 4h: 0.33mg/L Active ingredient
Acute dermal toxicity	LD50 Dermal Rabbit: 1008 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	Not teratogenic.
Teratogenicity	Collective data indicate non-mutagenic.
Sensitization	Skin sensitizer.
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 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
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	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
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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, acidic, organic, n.o.s. (5-Chloro-2-methyl-4-isothiazolin-3-one/2-methyl-4-isothiazolin-3-one)
UN-Number	UN 3265
Class	8
Packing group	II

IMO/IMDG

Proper shipping name	Corrosive liquid, acidic, organic, n.o.s. (5-Chloro-2-methyl-4-isothiazolin-3-one/2-methyl-4-isothiazolin-3-one)
UN-Number	UN 3265
Class	8
Packing group	II
Marine pollutant	yes

IATA-DGR

Proper shipping name	Corrosive liquid, acidic, organic, n.o.s. (5-Chloro-2-methyl-4-isothiazolin-3-one/2-methyl-4-isothiazolin-3-one)
UN-Number	UN 3265
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 and labelling according the Globally Harmonized System of Classification and Labeling of Chemicals (GHS, Rev.6, 2015, UN).

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.