CMIT/MIT-1.5
MATERIAL SAFETY DATA SHEET

1.IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name: HENCIDE PG520
Product description: Industrial Microbicide
Company name: Changzhou Ruihao Chemical Co.,Ltd
Company phone: Tel +86-(0)519-81297986
Emergency phone: Tel +86-(0)519-81297986
Date of issue: 2019-03-20

2.COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS REG No.	Weight (%)
5-Chloro-2-methyl-4 isothiazolin-3-one	26172-55-4	1.0-1.6
2-Methyl-4-isothiazolin-3-one	2682-20-4	0.3-0.5
Magnesium chloride	7786-30-3	0.7-0.8
Magnesium nitrate	10377-60-3	2.0-2.5
Copper nitrate	3251-23-8	1500-1700ppm
Water	7732-18-5	95-97

3.HAZARDS IDENTIFICATION

Inhalation
Inhalation of vapor or mist can cause the following:- irritation of nose and throat
Eye Contact
Material can cause the following:- corrosion to eyes - irreversible eye injury
Skin Contact
Skin irritation effects can be delayed for hours.
Material can cause the following:- corrosion to the skin - burns
Ingestion
Material is harmful if swallowed.

4.FIRST AID MEASURES

Inhalation
Move subject to fresh air.
Eye Contact
IMMEDIATELY flush eyes with a large amount of water for at least 15 minutes. 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.

5.FIRE FIGHTING MEASURES

Flash point not applicable
Low explosion limit not applicable
Upper explosion limit not applicable

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

Specific hazards during fire fighting: Combustion generates toxic fumes of the following: nitrogen oxides (NOx) sulfur oxides

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus and protective suit.

Further information: Cool containers / tanks with water spray.
Minimize exposure.
Do not breathe fumes.
Contain run-off.

6.ACCIDENTAL RELEASE MEASURES

Personal Protection

Wear a NIOSH approved (or equivalent) respirator (with organic vapor/ acid gas cartridge and a dust/mist filter) during spill clean-ups and deactivation of this material.
MATERIAL IS CORROSIVE. 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. See SECTION 4, First Aid Measures, for further information.

Procedures

WARNING: KEEP SPILLS AND CLEAN-UP RESIDUALS OUT OF MUNICIPAL SEWERS AND OPEN BODIES OF WATER. Absorb the spill with spill pillows or inert solids such as clay or vermiculite, and transfer contaminated materials to suitable containers for disposal. Deactivate spill area with freshly prepared solution of 5% sodium bicarbonate and 5% sodium hypochlorite in water. Apply solution to the spill area at a ratio of 10 volumes deactivation solution per estimated volume of residual spill to deactivate any residual active ingredient. Let stand for 30 minutes. Flush the spill area with copious amounts of water to chemical sewer (if in accordance with local procedures, permits and regulations). DO NOT add deactivation solution to the waste pail to deactivate the adsorbed material. See SECTION 13, "Disposal Considerations", for information regarding the disposal of contained materials.

7.HANDLING AND STORAGE

Storage Conditions

The maximum recommended storage temperature for this material is 55^0C/131F. The minimum recommended storage temperature for this material is 1^0C/32F. Store in a well ventilated area.
Do not store this material in containers made of the following: steel.

Handling Procedures

This material is corrosive. See section 8, Exposure Controls/Personal Protection, prior to handling.

Other

CONTAINERS HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue (vapors and/or liquid) follow all MSDS and label warnings even after container is emptied.

8.EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection

Typical use of this material does not result in workplace exposures that exceed the exposure limits listed in the "Exposure Limit Information" Section. For those special workplace conditions where the listed exposure limits are exceeded, a respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed. For concentrations up to 10 times the exposure limit, wear a properly fitted NIOSH approved (or equivalent) half-mask or full facepiece air purifying respirator equipped organic vapor cartridges and N95 filters. If oil mist is present, use R95 or P95 filters.

For those unlikely situations where exposure may greatly exceed the listed exposure limits (i.e. greater than 10-fold), or in any emergency situation, wear a properly fitted NIOSH approved (or equivalent) self-contained breathing apparatus in the pressure demand mode or a full facepiece airline respirator in the pressure demand mode with emergency escape provision.

See SECTION 6, Accidental Release Measures, for respirator and protective clothing requirements for spill clean-up and decontamination of this material.

Eye Protection

Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent). Eye protection worn must be compatible with respiratory protection system employed.

Hand Protection

NOTE: Material is a potential skin sensitizer.

The glove(s) listed below provide protection against permeation:

- Nitrile
- Butyl rubber

Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.

Rinse and remove gloves immediately after use. Wash hands with soap and water.

Other Protection

Use chemically resistant apron or other impervious clothing to avoid prolonged or repeated skin contact.

Engineering Controls (Ventilation)

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.

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

Appearance

Form	liquid
Colour	Light blue to light green
Odour	Mild, inoffensive odor
pH	2.0-5.0
Boiling point/boiling range	100 °C (212.°F)
Melting point/range	-3°C (26.6°F)
Flash point	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Relative vapour density	0.6
Water solubility	completely soluble
Relative density	1.02-1.05
Viscosity, dynamic	3.0mPa.s at 25 °C (77 °F)
Evaporation rate	<1.0
Percent volatility	95 - 96 %

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10.STABILITY AND REACTIVITY

Instability

This material is considered stable under specified conditions of storage, shipment and/or use. See section 7, Handling And Storage, for specified conditions.

Hazardous Decomposition Products

Thermal decomposition may yield the following:
- sulfur dioxide - oxides of nitrogen

Incompatibility

Avoid contact with the following:
- oxidizing agents - reducing agents - amines - mercaptans

11.TOXICOLOGICAL INFORMATION

Acute oral toxicity	LD50 rat female 3,310 mg/kg LD50 rat male > 5,000 mg/kg
Acute inhalation toxicity	LC50 rat 4 h 0.33 mg/l Active ingredient
Acute dermal toxicity	LD50 rabbit > 5,000 mg/kg
Skin irritation	rabbit Corrosive
Eye irritation	rabbit Corrosive
Sensitisation	guinea pig Causes sensitization.

Carcinogenicity:
Non-carcinogenic in both a mouse dermal and rat oral carcinogenicity study. Active ingredient

Toxicity to reproduction
This product is not a reproductive hazard.

Teratogenicity
Did not show teratogenic effects in animal experiments.

Mutagenicity
Non-mutagenic

12.ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability	Biodegradation (aquatic metabolism): CAS # 26172-55-4 t 1/2 anaerobic = 4.8 hr, CAS # 26172-55-4 t 1/2 aerobic = 17.3 hr, CAS # 2682-20-4 t 1/2 aerobic = 9.1 hr
Physico-chemical removability	Activated Sludge Respiration Inhibition EC50: 4.5 mg/L ai

Ecotoxicity effects

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

Disposal

Waste Classification: D002

When a decision is made to discard this material as supplied, it is classified as a RCRA hazardous waste with the characteristic of corrosivity.

Incinerate liquid and contaminated solids in accordance with local, state, and federal regulations. (See 40 CFR 268)

All local/national regulation should be followed.

14.TRANSPORT INFORMATION

DOT

Proper shipping name	Corrosive liquids, 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
Marine pollutant	5-Chloro-2-methyl-4-isothiazolin-3-one

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

15.REGULATORY INFORMATION

Label

Classification and labeling have been performed according to EU directives 67/548/EEC and 99/45/EC including amendments (2001/60/EC and 2006/8/EC).

Hazard symbol and Indication of danger

C Corrosive

Contains: Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

R-phrase(s)

R34	Causes burns.
R43	May cause sensitization by skin contact.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)

S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39	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.

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

Legend to Abbreviations

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

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.