



Material Safety Data Sheet

CALIBUR

1. PRODUCT IDENTIFICATION

Product Name: Thiodiazole copper 20% SC
 Common Name: Thiodiazole copper
 Chemical Family: Azole
 Chemical Formula: $C_4H_4N_6S_4Cu$
 Chemical Name: 5-amino-1,3,4-thiadiazole-2-thiol copper(2+) salt
 CAS No.: 3234-61-5
 Product Use: Fungicides

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>CAS Registry Number</u>	<u>Typical Wt. w/w</u>
Thiodiazole copper	N/A	20%
Inert	-	to balance

3. HAZARDS IDENTIFICATION

Emergency Overview

Yellow-green thick liquid with not distinct odor.

CAUTION!

KEEP OUT OF REACH OF CHILDREN

MAY CAUSED SKIN SLIGHT IRRITATION

MAY CAUSED EYE SLIGHT IRRITATION

Potential Health effects

Dermal contact, ingest and inhalation of the product are the primary routes to induce potential adverse health effects. Inhalation of aerosol during application of the product as part of its end use is another potential route of entry. Eye and skin irritation may occur from contact with the liquid or spray mixture.

4. FIRST AID MEASURES

If swallowed: If ingestion is suspected. Induce vomiting and wash stomach. Never give anything by mouth to an unconscious person. Should be send to the hospital treatment immediately.

If in eye: Immediately rinse eyes with a large amount of running water. Hold eyelids apart to rinse the advice of a physician.



If on skin: Wash with plenty of soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Remove contaminated clothing and decontaminate prior to use.

If Inhaled: Move victim from contaminated area to fresh air. Apply artificial respiration if necessary.

Notes to Physician:

There is calcium disodium edentate as specific antidote, Treat symptomatically.

5. FIRE FIGHTING MEASURES

Fire and explosive Properties

Auto-Ignition Temperature	Not applicable
Flash Point	Not available, the solvent is water.

Extinguishing Media

Water fog, Carbon Dioxide, Dry Chemical, Foam and halogenated agents.

Fire Fighting Instructions

The product is not flammable. But if firing, fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear and self-contained breathing apparatus. Fire fighting equipment should be thoroughly decontaminated after use. Person who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation.

6. ACCIDENTAL RELEASE MEASURES

In Case Of Spill or Leak

Stop the leak, if possible. Ventilated the space involved. Absorb, sweep up, place in container for disposal. Shut off or remove all ignition sources. Prevent waterway contamination. Construct a dike to prevent spreading. Protect works with water spray. Collect run-off water and transfer to drums or tanks for later disposal.

7. HANDLING AND STORAGE

Handling

Harmful if swallowed, inhaled, or absorbed through the skin. Causes eye irritation. Do not breathe gas or allow to get in eyes, on skin, or on clothing. Wash hands, arm and face thoroughly with soap and warm water after use and before eating or smoking. Wash all contaminated clothing with soap and hot water before reuse. Do not contaminate feed or food items. Keep out of reach of children.

Storage

Store in a cool dry and air ventilating warehouse and protected from light. Avoid contacting with food, feed stuff and seed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/Face Protection

Goggles and full face shield should be used when needed to prevent liquid from face and getting into the eyes.

Skin Protection

Avoid skin contact. Use chemical-resistant gloves, and wear long sleeves and trousers to prevent dermal exposure.

Respiratory Protection

Under normal handling conditions no respiratory protection is needed. However, if needed to prevent respiratory irritation, either a respirator approved for dusts and mists, or one approved for pesticides.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	yellow-green
Physical state:	thick liquid
Odor:	not distinct odor
Melting point	300°C(Tech.)
Boiling point:	not available
Vapor pressure:	not available
Solubility in water and solvents:	It is indissoluble in water and most of organic solvents, and slightly dissolves in dimethylformamide.

10. STABILITY AND REACTIVITY

Stability

The product is stable at the temperature of $54\pm 2^{\circ}\text{C}$ for 14 days or in 0°C for 7 days. It is also very stable in the acid conditions but easily decomposes in strong alkalinity.

Hazardous Polymerization

Does not occur.

Incompatibility

The product is not compatible with alkaline material.

Hazardous Decomposition Products

Not available

11. TOXICOLOGICAL INFORMATION

Acute Oral: The oral LD_{50} of the formulated product to rat is greater than 5000 mg/kg.

Acute Dermal: Acute percutaneous LD_{50} of the formulated product to rat > 2000mg/kg.

Irritation: Not irritating to skin; Minimal irritating to eye (rabbits);

- Sensitisation:** Not a skin sensitiser (guinea pigs).
Long-term Studies: Studies showed no evidence of carcinogenicity and mutagenicity to rats and rabbits.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information

Thiodiazole copper 250g/l SC is safe to crops, fish, birds, honeybee, silkworm, human beings, animals and beneficial insects. The product is no pollution to the environment.

Chemical Fate Information

No data are available

13. DISPOSAL CONSIDERATIONS

Waste Disposal

Pesticide wastes are acutely hazardous. Do not reuse product containers. Dispose product containers, waste containers, residues according local health and environmental regulations.

14. TRANSPORT INFORMATION

N/A

16. REGULATORY INFORMATION

Symbol: X_n
R phrase: R₂₂
S phrase: S_{1/2}, S_{3/7}, S_{20/21}, S_{24/25}

17. OTHER INFORMATION

The information contained herein relates only to the specific material identified. We believes that such information is accurate and reliable as of the date of this material safety data sheet, but no representation, guarantee or warranty, express or implied, is made as to the reliability or completeness of the information. Urge persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.

Chico Crop Science Co., Ltd.

Date: Jun., 25, 2021