

# SAFETY DATA SHEETS

## PROPICONAZOLE 95% TECHNICAL

No.: 121003  
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### SECTION 1: IDENTIFICATION

Product identifier	Propiconazole 95% technical
Other means of identification	N/A
Recommended use	Fungicide
Supplier's details	Jiangsu Heben Biochemical Co., Ltd No 20, Second Haibin Road, Yangkou Chemical Area, Rudong, Jiangsu, P.R.China
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### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 GHS classification of the substance or mixture (Ninth Revised Edition, 2021)

Physical hazards	None	None
Health hazards	Acute toxicity, oral, Category 4	H302
	Acute toxicity, dermal, Category 5	H313
	Acute toxicity, inhalation, Category 4	H332
Environmental hazards	Hazardous to the aquatic environment, long-term hazard, Category 1	H410

#### 2.2 GHS label elements, including precautionary statements

Hazard pictograms



Signal word	Warning
Hazard statement (s)	
H302	Harmful if swallowed
H313	May be harmful in contact with skin
H332	Harmful if inhaled

H410 Very toxic to aquatic life with long lasting effects

#### Prevention statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray  
P264 Wash hands and face thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product  
P271 Use only outdoors or in a well-ventilated area  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing

#### Response statements

P301+P317 IF SWALLOWED: Get medical help  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P330 Rinse mouth  
P391 Collect spillage.

#### Storage statements

P403 + P233 Store in the well-ventilated place, keep container tightly closed.  
P405 Store locked up.

#### Disposal statements

P501 Dispose of contents/container in accordance with local regulations.

#### 2.3 Other hazards which do not result in classification

No other hazards known.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Common name, synonyms	Chemical identity	CAS number and other unique identifiers	The concentrations of the ingredients
Propiconazole	cis-trans-1-[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-ylmethyl]-1H-1,2,4-triazole (IUPAC name)	CAS RN [60207-90-1] unstated stereochemistry EEC no.	95% Min

	262-104-4	
Other non-hazardous ingredients		< 3%

## SECTION 4: FIRST-AID MEASURES

### 4.1 Description of necessary first-aid measures

**Skin:** Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.

**Eyes:** For eye contamination, flush eyes immediately with water. Irrigate each eye continuously with normal saline during transport.

**Inhalation:** Move affected person to fresh air and keep at rest until recovered. If not breathing, give artificial respiration and get to a doctor.

**Ingestion:** Do not induce vomiting if the person is conscious. Give glass of water. Get to a doctor.

### 4.2 Most important symptoms/effects, acute and delayed

No such information is reported.

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

No antidote, no special treatment, please treat it symptomatically.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1 Suitable extinguishing media

Use dry chemical, carbon dioxide, water spray, and foam.

### 5.2 Specific hazards arising from the chemical

May produce toxic fumes of nitrogen oxides, carbon dioxide and carbon monoxide if burn.

### 5.3 Special protective equipment for firefighters

Should wear full-protective clothing, and self-contained breathing apparatus. Fight fire from safe distance and protected location. Avoid (reject) fire-fighting water to enter environment.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear full protective clothing and self-contained breathing apparatus. Control the spill at its source. Dike area and absorb small spills with materials such as sand, sawdust, Zorb all, or dirt and place in suitable containers for recovery or disposal. Remove all contaminated clothing promptly and wash exposed body areas thoroughly with soap and water immediately after handling. Thoroughly launder clothing before reuse. Do not take clothing home to be laundered.

### 6.2 Environmental precautions

Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems of any body of water. Keep spills and cleaning run-off out of municipal sewers and open bodies of water.

### 6.3 Methods and materials for containment and cleaning up

If there is contamination of crops or waterways, advise emergency services or state department of agriculture.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid direct or prolonged contact with skin and eyes. Do not breathe dust. Do not ingest. It is recommended that you wear full protective clothing including face mask, face shield and gauntlets, all skin areas should be covered, when handling this product.

Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. And take a bath or wash hands completely with soap after use. Remove contaminated clothing and protective equipment before entering eating areas.

Prevents handling of incompatible substances or mixtures when use this product. Minimize the release of this product to the environment when handling this product.

### 7.2 Conditions for safe storage, including any incompatibilities

Store the material in a well-ventilated, dry, cool, out of light and secure area, out of reach of children and domestic animals, and in sealed original containers. Do not store food, beverages or tobacco products in the storage area. Store this product away from the incompatible materials, explosive atmospheres, corrosive conditions, fire and heat, etc.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

Contain no substances with occupational exposure limit values.

### 8.2 Appropriate engineering controls

Use only in an enclosed system. Use local exhaust ventilation. Safety shower. Use explosive dust handling controls.

### 8.3 Individual protection measures

**Industrial hygiene:** Remove and wash contaminated clothing promptly. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

#### Personal protective equipment

##### Respiratory protection:

Wear respirator with a particle filter mask (protection factor 20) conforming to European Norm EN149FFP3 or EN140P3 or equivalent.

Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

**Protective gloves:** rubber gloves;

**Eye protection:** Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical state	Yellowish
Color	Liquid
Odor	Odorless
Melting point / freezing point	-23 °C (glass transition temperature)
Boiling point or initial boiling point and boiling range	99.9 °C (0.32 Pa); 120 °C (1.9 Pa); >250 °C (101 kPa)
Flammability	Not flammable
Lower and upper explosion limit/ flammability limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not expected to self-ignite
Decomposition temperature	355°C
pH value	Not determined
Kinematic viscosity	Not applicable
Solubility	In water 100 mg/l (20 °C). In n-hexane 47 g/l. Completely miscible with ethanol, acetone, toluene and n-octanol (25 °C).
Partition coefficient n-octanol/water (log value)	KOWlogP = 3.72 (pH 6.6, 25 °C)
Vapour pressure	$2.7 \times 10^{-2}$ mPa (20 °C); $5.6 \times 10^{-2}$ mPa (25 °C)
Density and/or relative density	1.29 (20°C)
Relative vapor density	Not applicable
Particle characteristics	Not known

### 9.2 Other information

Further safety related physical-chemical data are not known.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

No reactivity under normal conditions.

### 10.2 Chemical stability

This product is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

This product does not react or polymerize, releasing excess pressure or heat, or creating other hazardous conditions.

### 10.4 Conditions to avoid

Avoid fire, feed, food and beds of water.

### 10.5 Incompatible materials

Not compatible with Strong oxidizing agents, alkalis and acids.

### 10.6 Hazardous decomposition products

When involves in a fire, maybe release oxides of carbon and nitrogen and chlorides and other toxic nitrogen compounds on combustion.

## SECTION 11: TOXICOLOGICAL INFORMATION

	Acute oral LD <sub>50</sub> for 500 mg/kg ( <i>Data From experimental report</i> )
<b>Acute toxicity</b>	Acute dermal LD <sub>50</sub> for rats >2000 mg/kg ( <i>Data From experimental report</i> ) Acute inhalation LC <sub>50</sub> (4h) for rats >4.39mg/L ( <i>Data From experimental report</i> )
<b>Skin corrosion/irritation</b>	Not irritant to skin (Rabbit) ( <i>Data From experimental report</i> )
<b>Serious eye damage/irritation</b>	No irritant to eyes. (Rabbit) ( <i>Data From experimental report</i> )
<b>Respiratory or skin sensitization</b>	Not a skin sensitizer (Maximisation test) ( <i>Data From experimental report</i> )
<b>Germ cell mutagenicity</b>	No genotoxic potential ( <i>Data from EFSA Journal SANCO/3049/99-Final</i> )
<b>Carcinogenicity</b>	No carcinogenic potential ( <i>Data from EFSA Journal SANCO/3049/99-Final</i> )
<b>Reproductive toxicity</b>	The maternal NOAEL was 8 mg/kg bw/day for Reproductive and 30 mg/kg bw/day for developmental toxicity. ( <i>Data from EFSA Journal SANCO/3049/99-Final</i> )
<b>STOT-single exposure</b>	No available data.
<b>STOT-repeated exposure</b>	No available data.
<b>Aspiration hazard</b>	No available data.
<b>Further information</b>	No available data.

## SECTION 12: ECOLOGICAL INFORMATION

## 12.1 Eco-toxicity

<b>Birds</b>	Acute oral LD <sub>50</sub> for Japanese quail 2223, bobwhite quail 2825, mallard ducks >2510, Pekin ducks >6000 mg/kg. LC <sub>50</sub> (8 d) for Japanese quail >10 000, bobwhite quail >5620, mallard ducks >5620, Pekin ducks >10 000 ppm.
<b>Fish</b>	LC <sub>50</sub> (96 h) for carp 6.8, bluegill sunfish 6.4, rainbow trout 4.3-5.3, golden orfe 5.1, sprutte ( <i>Leiostomus xanthurus</i> ) 2.6 mg/l.
<b>Daphnia</b>	EC <sub>50</sub> (48 h) 10.2 mg/l.
<b>Algae</b>	EC <sub>50</sub> (20 d) for <i>Skeletonema costatum</i> 0.020 mg/l; EC <sub>50</sub> (11 d) for <i>Anabaena flos-aquae</i> 13.6 mg/l, for <i>Navicula seminulum</i> 0.093 mg/l; EC <sub>50</sub> (5 d) for <i>Scenedesmus subspicatus</i> 0.76 mg/l; EC <sub>50</sub> (9 d) for <i>Pseudokirchneriella subcapitata</i> 1.53 mg/l.
<b>Bees</b>	Not toxic to bees; LD <sub>50</sub> (contact and oral) >100 µg/bee.
<b>Worms</b>	Non toxic to earthworms; no toxic effects against <i>Lumbricus rebellus</i> and <i>Eisenia foetida</i> at highest rates tested (up to 250 mg/kg soil).

(BCPC, *e-The Pesticide Manual, Thirteenth Edition*)

## 12.2 Persistence and degradability

DT<sub>50</sub> in aerobic soils (20-25 °C) 29-70 d. DT<sub>50</sub> from water 6.4 d. The main degradation pathways are hydroxylation of the propyl side-chain and the dioxolane ring, and finally formation of 1,2,4-triazole. .

(BCPC, *e-The Pesticide Manual, Thirteenth Edition*)

## 12.3 Bio-accumulative potential

BCF = 116L/kg

## 12.4 Mobility in soil

Immobile in soil; adsorption coefficient normalised to organic carbon K<sub>oc</sub> (ads) 950 ml/g.

(BCPC, *e-The Pesticide Manual, Thirteenth Edition*)

## 12.5 Other adverse effects

None

# SECTION 13: DISPOSAL CONSIDERATIONS

## 13.1 Product

The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management

company.

### **13.2 Contaminated packaging**

Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

## **SECTION 14: TRANSPORT INFORMATION**

### **IMDG:**

UN number: 3082

UN proper shipping name: ENVIRONMENTAL HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Propiconazole)

Transport hazard class: 9

Packing group: III

Environmental hazards: Marine pollutant

Special precautions for user: None.

Transport in bulk according to IMO instruments: Not applicable

## **SECTION 15: REGULATORY INFORMATION**

### **15.1 Safety, health and environmental regulations/legislation specific for the product in question**

WHO-classification: II (Moderately hazardous)

This product is not subject to any prohibitions or restrictions in China.

## **SECTION 16: OTHER INFORMATION**

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.