



## MATERIAL SAFETY DATA SHEET

Date: Dec 14, 2011

### INFORMATION OF MANUFACTURER:

Manufacturer: ZHEJIANG HEBEN PESTICIDE & CHEMICALS CO., LTD

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### 1. IDENTIFICATION OF CHEMICAL PRODUCT

**Product Name:** Propiconazole +Kresoxin-methyl 275 g/l SC

**Active ingredient 1:** Propiconazole

Molecular Formula:  $C_{15}H_{17}Cl_2N_3O_2$

Molecular Weight: 342.2

Chemical name:

(±)-1-[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-ylmethyl]-1H-1,2,4-triazol  
e (IUPAC)

CAS No.: 60207-90-1

**Active ingredient 2:** Kresoxim-methyl

Molecular Formula:  $C_{18}H_{19}NO_4$

Molecular Weight: 313.4

Chemical name:

methyl (E)-methoxyimino[2-(o-tolyloxymethyl)phenyl]acetate (IUPAC)

CAS No.: 143390-89-0



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## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Composition	CAS No.	Content g/l
Propiconazole	60207-90-1	150
Kresoxin-methyl	143390-89-0	125
Other ingredients		725

## 3. HAZARDS IDENTIFICATION

**Hazard Classification:** This product is unlikely to present a hazard during normal use (WHO Hazard Class III).

**Dangerous for environment:** this product is toxic to the aquatic organisms.

## 4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre, and follow the advice given. Show this Material Safety Data Sheet to a doctor.

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

**Eyes:** First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.

**Inhalation:** Move affected person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

**Ingestion:** Rinse mouth with water. Give plenty of water to drink. If vomiting occurs give further water. Seek medical assistance.

**Notes to physician:** No specific antidote if ingested. Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Type of Hazard:** This product is non-flammable, non-explosive and





non-combustible.

**Extinguishing media to be used:** Extinguish warehouse and factory fires using fine-water spray or foam. Do not allow fire-water to enter drains.

Measures of personal protection: safety glasses or goggles, rubber gloves, shoes plus socks, long-sleeved shirt, and long pants.

## 6. ACCIDENTAL RELEASE MEASURES

**Steps to be taken in case material is released or spilled:** In case of Spill or Leak wear chemical safety glasses with side shields or chemical goggles, waterproof gloves, rubber boots, long-sleeved shirt, long pants, head covering, and a NIOSH-approved pesticide respirator or air-supplied respirator. For spills, sweep up and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent water to remove any residue. Do not allow wash water to contaminate water supplies. Check with local, state and federal regulations prior to disposal.

## 7. HANDLING AND STORAGE

**Handling:** do not apply to humans, their clothing, or bedding. Do not contaminate food or use on household tanks.

**Storage:** Technical protective measures: store in original container only in cool, dry, well-ventilated, and secure area at minimum storage temperatures and out of reach of children and animals.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment:

**Respiratory protection:** approved respirator

**Protective gloves:** chemical resistant gloves



**Eye protection:** goggles

**Industrial hygiene:** use good industrial hygiene. Wear face shield or goggles, elbow length PVC gloves, cotton overalls buttoned to the neck and wrist, washable hat and half face respirator with dust and vapour cartridge. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** flowable liquid.

**Melting Point:** no information

**Vapor Pressure:** no information

**Specific gravity:** 1.03-1.09

**Water solubility:** Form suspension;

**pH value:** 5.0-8.0;

**Flash point:** not flash

**Ignition temperature:** not applicable

## 10. STABILITY AND REACTIVITY

**Stability:** This product is stable under normal conditions.

**Conditions to avoid:** high temperature, flame, fire and U.V. light;

**Products to avoid:** strong oxidant

**Thermal decomposition:** Not applicable

**Hazardous decomposition products:** combustion or thermal decomposition may evolve toxic and irritant vapour.

**Hazardous reaction:** not applicable

## 11. TOXICOLOGICAL INFORMATION





Toxicological information for technical:

Kresoxim-methyl

Oral Acute oral LD50 for rats >5000 mg/kg. Skin and eye Acute percutaneous LD50 for rats >2000 mg/kg. Non-irritating to skin and eyes (rabbits). Inhalation LC50 (4 h) for rats >5.6 mg/l.

Propiconazole

Oral Acute oral LD50 for rats 1517, mice 1490 mg/kg. Skin and eye Acute percutaneous LD50 for rats >4000, rabbits >6000 mg/kg. Non-irritating to skin and eyes (rabbits). Skin sensitiser (guinea pigs). Inhalation LC50 (4 h) for rats >5800 mg/m<sup>3</sup>.

## 12. ECO-TOXICOLOGICAL INFORMATION

### Ecotoxicity data for Technical

Kresoxim-methyl

Birds LD50 (14 d) for quail >2150 mg/kg. LC50 (8 d) for bobwhite quail and mallard ducks >5000 ppm. Fish LC50 (96 h) for bluegill sunfish 0.499 mg/l, rainbow trout 190 ppb. Daphnia EC50 (48 h) 0.186 mg/l. Algae EC50 (0-72 h) 63  $\mu$ g/l. Bees LD50 (48 h) (contact) >20  $\mu$ g/bee. Worms LC50 >937 mg/kg.

Propiconazole

Birds Acute oral LD50 for Japanese quail 2223, bobwhite quail 2825, mallard ducks >2510, Pekin ducks >6000 mg/kg. LC50 (8 d) for Japanese quail >10 000, bobwhite quail >5620, mallard ducks >5620, Pekin ducks >10 000 ppm. Fish LC50 (96 h) for carp 6.8, bluegill sunfish 6.4, rainbow trout 4.3-5.3, golden orfe 5.1, sprotte (*Leiostomus xanthurus*) 2.6 mg/l. Daphnia EC50 (48 h) 10.2 mg/l. Algae EC50 (20 d) for *Skeletonema costatum* 0.020 mg/l; EC50 (11 d) for *Anabaena flos-aquae* 13.6 mg/l, for *Navicula seminulum* 0.093 mg/l; EC50 (5 d) for *Scenedesmus subspicatus* 0.76 mg/l; EC50 (9 d) for *Pseudokirchneriella*



subcapitata 1.53 mg/l. Bees Not toxic to bees; LD50 (contact and oral) >100 □g/bee. Worms Non toxic to earthworms; no toxic effects against Lumbricus rebus and Eisenia foetida at highest rates tested (up to 250 mg/kg soil).

### 13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Triple or preferably pressure rinse containers before disposal. Add rinsings to the spray tank. Do not dispose of undiluted chemicals on-site. Break, crush or puncture and bury empty containers in local authority landfill. If not available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers or product should not be burnt.

### 14. TRANSPORT INFORMATION

Don't transport with food and feedstuff.

### 15. REGULATORY INFORMATION

Symbol: T (Toxic); N (Danger for environment)

R phrases:

R23: Toxic by inhalation

R50: Very toxic to aquatic organisms

R53: May cause long term adverse effect in the aquatic environment

S phrases:

S1/2: Keep locked up and out of the reach of children

S7/9: Keep container tightly closed in a well-ventilated place

S20/21: When using do not eat, drink or smoke

S24/25: Avoid contact with skin and eyes

S29/56: Do not empty into drains, dispose of this material and its container at





hazardous or special waste collection point

S36/37/39: Wear suitable gloves and eye/face protection

S46 If swallowed, seek medical advice immediately and show this container or label

S57 Use appropriate container to avoid environmental contamination

Do not treat near waterways and pond surroundings.

## 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 produce 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.

\*\*\*\*\* The end of MSDS \*\*\*\*\*