

MATERIAL SAFETY DATA SHEET



Propiconazole 3.6 EC Fungicide

Repar Corporation
P.O. Box 4321
Silver Spring, MD 20914

Emergency Phone: 800-424-9300
(CHEMTREC)

Effective Date: 12/23/2013

1. PRODUCT IDENTIFICATION

Product Name: Propiconazole 3.6 EC Fungicide
EPA Signal Word: Warning
Active Ingredient(%): Propiconazole (41.8%) CAS No.: 60207-90-1
Chemical Name: 1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole
Chemical Class: Triazole Derivative Fungicide
EPA Registration Number: 69361-40

2. HAZARDS IDENTIFICATION

Health and Environmental

Harmful if swallowed. Irritating to eyes and skin. Abdominal pain, nausea, gastritis, breathing difficulty or diarrhea can also occur if swallowed. May cause an allergic skin reaction. Vapors may cause drowsiness and dizziness. May be harmful if swallowed and enters airway.

Flammable liquid and vapor.

Hazardous Decomposition Products

None known.

Physical Properties

Appearance: Amber liquid

Odor: Aromatic solvent

Unusual Fire, Explosion and Reactivity Hazards

Flammable liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
1,2,4-Trimethylbenzene (< 20%)	Not Established	25 ppm TWA	25 ppm TWA **	No
Ethyl Benzene (< 5%)	100 ppm TWA	100 ppm TWA; 125 ppm STEL	100 ppm TWA; 125 ppm STEL **	IARC Group 2B
Xylene (< 15%)	100 ppm TWA	100 ppm TWA; 150 ppm STEL	100 ppm TWA **	IARC Group 3

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Petroleum Solvent	100 ppm TWA	25 ppm TLV	Not Established	No
Propiconazole (41.8%)	Not Established	Not Established	8 mg/m ³ TWA ***	No

** recommended by NIOSH

*** Occupational Exposure Limit (OEL)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications. Hazard Category: C, S

4. FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling CHEMTREC (800-424-9300), a poison control center or doctor, or going for treatment.

- Ingestion:** If swallowed: Call CHEMTREC (800-424-9300), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-424-9300 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Eye Contact:** If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call CHEMTREC (800-424-9300), a poison control center or doctor for treatment advice.
- Skin Contact:** If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call CHEMTREC (800-424-9300), a poison control center or doctor for treatment advice.
- Inhalation:** If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call CHEMTREC (800-424-9300), a poison control center or doctor for further treatment advice.

Notes to Physician

There is no specific antidote if this product is ingested.

Treat symptomatically.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Contains petroleum distillate - vomiting may cause aspiration pneumonia.

Medical Condition Likely to be Aggravated by Exposure

None known.

5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point (Test Method): 110°F

Flammable Limits (% in Air): Lower: 0.8% Upper: 3.2%

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Autoignition Temperature: > 752°F

Flammability: Flammable liquid and vapor

Unusual Fire, Explosion and Reactivity Hazards

Flammable liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

In Case of Fire

Use appropriate extinguishing media for flammables in the area. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Warning - flammable vapors may be present. Eliminate sources of ignition and ventilate spill area. Use non-sparking cleanup equipment to prevent vapor ignition.

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions in Protective Equipment Section. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

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- Ingestion:** Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.
- Eye Contact:** Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
- Skin Contact:** Where contact is likely, wear chemical-resistant (such as barrier laminate or Viton) gloves, coveralls, socks and chemical-resistant footwear.
- Inhalation:** A combination particulate/ organic vapor respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with an HE prefilter.

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance:** Amber liquid
- Odor:** Aromatic solvent
- Melting Point:** Not Applicable
- Boiling Point:** 356°F (180°C)
- Specific Gravity/Density:** 1.0306 g/cm³ ; 8.60 lbs/gal @ 68°F (20°C)
- pH:** 4 - 7 (1% solution in H₂O @ 77°F (25°C))
- Solubility in H₂O**
- Propiconazole:** 0.1 g/l @ 68°F (20°C)
- Vapor Pressure**
- Propiconazole:** 4.2 x 10⁽⁻⁷⁾ mmHg @ 77°F (25°C)

10. STABILITY AND REACTIVITY

- Stability:** Stable under normal use and storage conditions.
- Hazardous Polymerization:** Will not occur.
- Conditions to Avoid:** None known.
- Materials to Avoid:** None known.
- Hazardous Decomposition Products:** None known.

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11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion:

Oral (LD50 Rat): 1310 mg/kg body weight

Dermal:

Dermal LD 50 Rabbit: >5000 mg/kg body weight

Inhalation

Inhalation (LC50 Rat): >2.5 mg/l air- 4 hours

Eye Contact:

Moderately Irritating (Rabbit)

Skin sensitization:

Sensitizing (Guinea Pig)

Reproductive/Developmental Effects

Propiconazole: None observed.

Chronic/Subchronic Toxicity Studies

Propiconazole: None observed.

Carcinogenicity

Propiconazole: Increased incidence of liver tumors at extremely high doses (male mice).

Other Toxicity Information

None

Toxicity of Other Components

1,2,4-Trimethylbenzene (< 20%)

Test results reported in Section 11 for the final product take into account any acute hazards related to the 1,2,4- trimethylbenzene in the formulation.

Ethyl Benzene (< 5%)

Test results reported in Section 11 for the final product take into account any acute hazards related to the ethyl benzene in the formulation.

Petroleum Solvent

Eye, skin and respiratory tract irritation, dizziness, nausea, loss of consciousness.

Xylene (< 15%)

Test results reported in Section 11 for the final product take into account any acute hazards related to the xylene in the formulation.

Target Organs

Active Ingredients

Propiconazole: Liver

Inert Ingredients

1,2,4-Trimethylbenzene: Not Applicable

Ethyl Benzene: Not Applicable

Petroleum Solvent: Eye, skin, respiratory tract, CNS

Xylene: Not Applicable

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12. ECOLOGICAL INFORMATION

Ecotoxicity Effects

Propiconazole:

Fish (Rainbow Trout) 96-hour LC50 0.83 ppm
Invertebrate (Water Flea) 48-hour EC50 3.2 ppm
Green Algae 9-day EC50 0.72 ppm
Bird (Mallard Duck) 14-day LD50 2510 mg/kg

Environmental Fate

Propiconazole:

The information presented here is for the active ingredient, propiconazole.
Low bioaccumulation potential. Not persistent in soil. Stable in water. Low mobility in soil. Sinks in water (after 24 h).

13. DISPOSAL CONSIDERATIONS

Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Ignitable D001

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Shipping Description:

Containers \leq 119 gallons
Containers > 119 gallons

Not Regulated
NA 119, Combustible liquid, N.O.S. (contains petroleum distillate), PG III

DOT HAZARD CLASS:

Combustible liquid

IDENTIFICATION NUMBER:

NA 1993

DOT PACKING GROUP:

PG III

DOT PRIMARY/SECONDARY LABEL

N/A

DOT PRIMARY/SECONDARY PLACARD:

Combustible (> 119 gallons)

DOT EMERGENCY RESPONSE GUIDE #:

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15. REGULATORY INFORMATION

EPCRA SARA Title III Classification

Section 311/312 Hazard Classes:

Acute Health Hazard
Chronic Health Hazard
Fire Hazard

Section 313 Toxic Chemicals:

Propiconazole (41.8%) (CAS No. 60207-90-1)
1,2,4-Trimethylbenzene (< 20%) (CAS No. 95-63-6)
Ethyl Benzene (< 5%) (CAS No. 100-41-4)
Xylene (< 15%) (CAS No. 1330-20-7)

California Proposition 65

This product contains trace amounts of chemical(s) known to the State of California to cause cancer as unintended impurities resulting from other entities manufacturing or processing operations which Repar cannot control.

CERCLA/SARA 304 Reportable Quantity (RQ)

Report product spills > 1,000 gal. (based on p-xylene [RQ = 100 lbs.] content in the formulation)

RCRA Hazardous Waste Classification (40 CFR 261)

Ignitable D001

TSCA Status

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2
Flammability: 2
Instability: 0

HMIS Hazard Ratings

Health: 2
Flammability: 2
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme

Original Issued Date: 12-23-13

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.