

MATERIAL SAFETY DATA SHEET**PROPICONAZOLE TECHNICAL****1. Product and Company Identification**

Product Name : Propiconazole Technical
Chemical Name : (2RS,4RS;2RS,4SR)-1-[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-ylmethyl]-1H-1,2,4-triazole
Chemical Class : Triazole fungicides
Molecular formula : C₁₅H₁₇Cl₂N₃O₂

2. Composition / Information on ingredients

Chemical Name	CAS#	Percent or content (w/w)
Propiconazole	60207-90-1	92.00 %
Other ingredients	-	8.00%

3. Health Hazards Identification

Toxicity : This product is slightly hazardous
Inhalation : Slightly toxic
Ingestion : Slightly toxic
Skin : Mild irritant - skin sensitizer
Eye : Mild irritant
Sensitization : Non-sensitizer to skin

4. First Aid Measures

Eyes Hold eye open and rinse gently with fresh water for 15-20 minutes. If Irritation persists, consult a medical Physician.

Skin Take off contaminated clothing. Wash skin immediately with plenty of Soap & Water for 15-20 minutes.

Ingestion Give a large quantity of medical charcoal in plenty of water. Seek medical attention if a large column of concentrate was ingested.

Inhalation Move person to fresh air. Give artificial respiration if required and call ambulance. Seek immediate medical assistance.

5. Fire Fighting Measures

Fire Not expected to be a fire hazard

Explosion None identified

Suitable Extinguishing Media Use water fog, foam, CO2 to extinguish flames.

Flammability Properties Non-flammable, product is combustible

6. Accidental Release Measures

Personal precautions : Wear suitable protective clothing, shoes, gloves and goggle.

In case of spill or leak : Control the spill at its source. Control the spill to prevent it from spreading, contaminating soil, or entering sewage and drainage systems or any body of water.
Clean the spills immediately. Cover the entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent. Pickup wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in disposal containers, seal container and arrange for disposition.

7. Handling and Storage

Handling : 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.

Storage : Keep tightly closed in original labeled container. Keep away from the reach of children. Keep away from foods, drinks and animals feeding stuffs.

Suitable materials & Coatings : Aluminum and Stainless steel.

Loading & unloading Temperature	Ambient
Transport Temperature	Ambient
Specific use	Use this product only for plant protection under outdoor conditions.

8. Exposure Controls/Personal Protection

Ingestion	Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material.
Eye protection	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 Protection	Where contact is likely wear chemical- resistant gloves, coverall, socks And chemical-resistant foot wear. For over head exposure, wear chemical-resistant head gear.
Inhalation	Use approved chemical cartridge respirator with organic vapor cartridges and Pre- filters or a supplied air respirator.

9. Physical and Chemical Properties

Appearance	Transparent amber colour liquid
Odour	Musty odour
Melting Point	23°C (glass transition temperature)
Boiling Point	99.9°C (0.32 Pa)
pH	5.77
Vapour Pressure	2.7×10^{-2} mPa at 20°C; 5.6×10^{-2} mPa at 25°C
Water solubility	100 mg/l (20°C)
Relative density	1.29 (20°C)
Flash Point	233°C

10. Stability and Reactivity

Chemical Stability	stable material
Hazardous Polymerization	Will not occur
Incompatibilities	Not known

11. Toxicological Information

Acute Oral Toxicity	LD ₅₀ (Rats) 300-2000 mg/kg
Acute Dermal Toxicity	LD ₅₀ (Rats) 2,000 mg/kg b.w
Acute Inhalation	LC ₅₀ (rats): 5.13 mg / L air (4 h)
Eye Irritation	Rabbit: Mild irritant
Skin Irritant	Rabbit: Mild irritant
Skin Sensitization	Guinea pig: Sensitizing

12. Ecological Information

Birds	Acute oral LD ₅₀ (Japanese quail) 2223 mg/kg bw LC ₅₀ (5 d, Japanese quail) >10,000 mg/kg diet Acute oral LD ₅₀ (mallard ducks) >2510 mg/kg bw LC ₅₀ (5 d, mallard ducks) >5620 mg/kg diet
Fish	LC ₅₀ (96 h) for Rainbow trout 4.3 mg/l, Carp 6.8 mg/l
Bees	LD ₅₀ (oral & contact) >100 µg/bee LD ₅₀ (contact) >200 µg/bee

13. Disposal Considerations

Waste Disposal Method	Do not reuse product containers. Dispose of product containers, waste containers and residues according to local, state and federal health and environmental regulations.
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14. Transport Information

Rail/Road (RID/ADR)

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S
 Class : 9
 UN No. : 3082
 Packing Group : III

Sea (IMDG – Code)

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S
 Class : 9
 IMDG No. : 3082
 Packing Group : III
 Marine Pollutant : Yes

Air (ICAO/IATA)

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S
 Class : 9
 UN No. : 3082
 Packing Group : III

15. Regulatory Information

EU- Classification Hazard	Xn	Harmful
Symbol	N	Dangerous for the environment
Special Risks (R-Phrases)	22	Harmful if swallowed
	43	May cause sensitization by skin contact
	50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Safety Advice (S- Phrases)	36/37	Wear suitable protective clothing and gloves.
	46	If swallowed, seek medical advice immediately and show this container or label.
	60	This material and its container must be disposed of as hazardous waste
	61	Avoid release to the environment. Refer to special instructions/Safety data sheets.

International WHO Toxicity III Slightly hazardous
Classification

16. Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such damages.