

SAP No : 11000419
 INDOFIL INDUSTRIES LIMITED
 KOLSHET, OFF SWAMI VIVEKANAND ROAD,
 AZAD NAGAR, SANDOZ BAUG P.O.,
 THANE – 400 607. MAHARASHTRA (INDIA)
 TEL. NO. : 00-91-22- 67999100
 FAX NO. : 00-91-22-2589 83 57 / 59



2-R&D-MSDS-FP-514

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT IDENTIFICATION

Chemical Name	TRICYCLAZOLE 70% WG	Company Identification INDOFIL INDUSTRIES LIMITED KOLSHET, OFF SWAMI VIVEKANAND ROAD, AZAD NAGAR, SANDOZ BAUG P.O., THANE – 400 607. MAHARASHTRA (INDIA) TEL. NO. : 00-91- 67999100 , FAX NO. : 00-91-22-2589 83 57 / 59
Trade Name	BAAN	
Synonyms	TRICYCLAZOLE	GROUP : Benzothiazole
IUPAC	5-methyl-1, 2, 4-triazolo [3, 4- <i>b</i>] [1, 3] benzothiazole	CLASS : Fungicide
CAS Number	41814-78-2	
Formula	C ₉ H ₇ N ₃ S	

SECTION 2: COMPOSITION / INFORMATION OF INGREDIENTS

COMPONENT NAME	CAS REGISTRY NO	CONCENTRATION
Tricyclazole	41814-78-2	70%
Other Ingredients	----	30%

SECTION 3: HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

Physical state : Granule

Colour : Orange to red brown

Odour : No applicable odour

Harmful or fatal if swallowed. Contact can cause eye or skin irritation

IMMEDIATE HEALTH EFFECTS

Eye contact	Direct contact with the material can cause irritation to the eyes
Skin contact	Contact may cause slight skin irritation. Prolonged or repeated skin contact may cause contact dermatitis.
Ingestion	Normal handling operations will not likely result in the product being ingested in harmful amounts.
Inhalation	Dust can cause irritation of nose, throat and lungs.

DELAYED OR OTHER HEALTH EFFECTS

Target organs	No data.
An "X" in the box adjacent to the hazard title indicates OSHA Hazard classification. If no "X" is present, the product does not exhibit the hazard as defined in the OSHA Hazard Communication standard (29 CFR 1910.1200)	
OSHA Health Hazard Classification	OSHA Physical Hazard Classification

Toxic	<input type="checkbox"/>	Highly Toxic	<input type="checkbox"/>	Flammable	<input type="checkbox"/>	Oxidizer	<input type="checkbox"/>
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Irritant <input type="checkbox"/>	Sensitizer <input type="checkbox"/>	Combustible <input type="checkbox"/>
Corrosive <input type="checkbox"/>	Carcinogenic <input type="checkbox"/>	Explosive <input type="checkbox"/> Organic Peroxide <input type="checkbox"/>
	Pyrophoric <input type="checkbox"/>	unstable <input type="checkbox"/>
	Organic peroxide <input type="checkbox"/>	water-reactive <input type="checkbox"/>

SECTION 4: FIRST AID MEASURES

Eye	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
Skin	In case of contact, flush skin with water. Wash clothing before reuse. Call a physician if irritation occurs.
Ingestion	Call physician immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by doctor. Do not give anything by mouth to an unconscious person.
Inhalation	Move person to fresh air. If person is not breathing, then give artificial respiration, preferably mouth-to-mouth if possible. Call doctor for further treatment.
Notes to physician	No specific antidote.

SECTION 5: FIRE FIGHTING MEASURES

NFPA Flammability Classification	-----
NFPA RATINGS	Health: 1 Flammability : 1 Reactivity:----
OSHA classification	No data
Flash point	Not applicable
Flammability (Explosive limits)	NA
Auto ignition Temperature	No data
Hazardous Combustion products	No data
Extinguishing Media	Use Water spray, Carbon Dioxide, foam or dry chemical.
Protection of Fire Fighters	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Special Properties	Avoid breathing fumes from fire exposed material.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Protective Measures	Appropriate protective equipment must be worn when handling a spill of this material.
Spill Management	<p>If the spill occurs out of doors, cover the spilled product with a moisture-proof material to prevent degradation. If the covered material is in direct sunlight, measures should be taken to protect it from solar heat, which may cause degradation to commence or accelerate.</p> <p>For small spills, sweep or scoop up material to suitable container in a manner that does not form an air-borne dust and store collected material as a slurry in water in secure containers until safe disposal can be arranged. Do not vacuum up spilled material as the dust created may form an explosive mixture when combined with air.</p> <p>Do not allow spilled material to contaminate water supplies.</p>

SECTION 7: HANDLING AND STORAGE

Handling & Storage procedure	<p>Keep container closed. Do not handle this product near food, feed or water. Keep out of reach of children or animals. Avoid breathing, ingestion and contact with eyes, skin or clothing of dust. Remove and wash contaminated clothing before reuse. Contaminated clothing should be washed separately from domestic laundry and line dried. Users should wash hands and face before eating, drinking, chewing gum, using tobacco or the toilet.</p> <p>This material is not hazardous under normal storage conditions. However material should be stored in closed containers, in a secure area to prevent container damage and subsequent spillage. Store in original container. If allowed to become wet the product will deteriorate and represent a fire hazard.</p>
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SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls	Ventilation: Investigate engineering techniques to reduce exposures. Provide ventilation if necessary to minimize exposures. Use mechanical exhaust ventilation at sources of air contamination such as open process equipment.
Personal Protective Equipment	<p>Eye / face Protection: Safety Glasses or goggles.</p> <p>Skin protection: Avoid skin contact. Rubber gloves should be worn whenever this material is handled. Wash hands with clean water.</p> <p>Body protection: Avoid skin contact. Wear long-sleeved fire-retardant garments.</p> <p>Respiratory Protection: Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and or its components. For emergency and other conditions where there may be a potential for significant exposure, use an approved full-face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.</p>

Occupational exposure limits (exposure limit information)

Component	Limit	TWA	STEL	Ceiling	Notation
Tricyclazole	OSHA	No data	No data	No data	No data
	ACGIH	No data			

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES			
Physical state	Granule	Colour	Orange to red brown
Odor	No applicable odour	pH (1%)	6.0 to 8.0
Specific gravity Bulk density	Not applicable 0.4-0.6 gm/ml	Solubility in water	Forms Suspension in water
Vapor pressure	Not applicable	Vapor density	No data
Viscosity	Not applicable	Boiling point	Not applicable
Melting / Freezing point	Not applicable	Evaporation rate	Not applicable

SECTION 10: STABILITY AND REACTIVITY	
Chemical stability	This material is chemically stable under normal and anticipated storage and handling conditions.
Conditions to Avoid	Excessive temperatures.
Material Incompatibility	Strong acids, strong oxidizers, dampness, strong sequestering agent, quaternary ammonium compounds
Hazardous Decomposition Products	Thermal decomposition may yield toxic, flammable gasses, including carbon disulfide, hydrogen sulfide and oxides of carbon, nitrogen, sulfur and ethylene thiourea
Hazardous Polymerization	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION	
Acute Oral toxicity	LD50 (Male) 400 mg/kg and Female 230 mg/kg for Rats
Acute Dermal toxicity	No data
Acute Inhalation toxicity	No data
Eye irritation: irritating to rabbits. Skin irritation: irritating to rabbits.	

SECTION 12: ECOLOGICAL INFORMATION	
Ecotoxicity	Bird-Acute oral LD50 > 100 mg/kg (Mallard duck and bobwhite quail) Fish-LC50 (96 h) bluegill sunfish 16 mg/l, rainbow trout 7.3 mg/l Daphnia-LC50 (48 h) > 20 mg/l
Environmental fate	No data

SECTION 13: DISPOSAL CONSIDERATIONS	
WASTE DISPOSAL PROCEDURES: Waste disposal should be in accordance with existing federal, state and local environmental regulations. Dispose of empty, used containers in approved incineration plant in approved land filling area or in a disposal pit away from desirable plants and their roots and water courses. On-site disposal of undiluted product is unacceptable.	

SECTION 14: TRANSPORT INFORMATION	
	Marine pollutant: Yes
DOT Shipping Name	DOT Technical Name : Tricyclazole
DOT Hazard class	Class: 6.1 UN Number: 2811
DOT identification number	No data
DOT additional information	Classified as non Dangerous goods for transport by road and Rail.

SECTION 15: REGULATORY INFORMATION	
Work place classification	Hazard categories under criteria of SARA Title III rules (40 CFR part 370) Immediate acute health Y Delayed chronic health N Fire Y Reactive Y Sudden Release of pressure N
SARA TITLE 3 : SECTION 311/312 Hazard Identification	-----
SARA TITLE 3 : SECTION 302/304 Emergency planning and notification	-----
SARA TITLE 3 : SECTION 313 Toxic chemical notification and Release reporting	This product does contain chemicals which are defined as toxic chemicals under and subject to the reporting requirements of, Section 313 of title III of the superfund amendments and Reauthorization act of 1986 and 40 CFR part 372
CERCLA (40 CFR 302.4)	-----
Waste classification	No data
Clean Air Act	No data

SECTION 16: OTHER INFORMATION			
NFPA RATINGS	Health : 1	Flammability : 1	Reactivity :---
HMIS RATINGS	Health : ----	Flammability :----	Reactivity :---
	0 = Least 1= slight 2= Moderate 3= High 4=Extreme		

ABBREVIATIONS

STEL	Short term exposure limit
ACGIH	American conference of Government Industrial Hygienists
NIOSH	National institute of safety and health
SARA	Super fund Amendments and Reauthorization Act
TWA	Time weighted average
OSHA	Occupational safety and health
NFPA	National Fire protection agency
HMIS	Hazardous Materials information system
RCRA	Resource conservation Recovery act
TSCA	Toxic substance Control Act
WHMIS	Work place Hazardous Materials information system
IRAC	International Agency for Research on Cancer

MANUFACTURE'S / SUPPLIER'S DATA

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Fax 2589 8357	Fax		Fax 22767 5083	
Local Bodies Involved	Collector of Thane			

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