



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-450

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT IDENTIFICATION		
Chemical Name	TRICYCLAZOLE 75% WP	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 ₄ H ₆ N ₂ MnS ₄) _x (Zn) _y	
SECTION 2: COMPOSITION / INFORMATION OF INGREDIENTS		
COMPONENT NAME	CAS REGISTRY NO	CONCENTRATION
Tricyclazole	41814-78-2	75%
Other Ingredients	----	25%
SECTION 3: HAZARDS IDENTIFICATION		
EMERGENCY OVERVIEW		
Physical state : Powder		
Colour : Light Orange Colour		
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"/>
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 given 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>

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	Powder	Colour	Light Orange
Odor	No applicable odour	pH (1%)	4 to 7.5
Specific gravity Bulk density	Not applicable 0.35-0.50 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.	

MANUFACTURE'S / SUPPLIER'S DATA

Name of Firm: INDOFIL INDUSTRIES LIMITED				
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Local Bodies Involved		Collector of Thane		

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