



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

MATERIAL SAFETY DATA SHEET

2-R&D-MSDS- FP- 458.

SECTION 1. PRODUCT IDENTIFICATION		
Chemical Name	Zineb 68% + Hexaconazole 4% WP (Zinc ethylene Bis Dithiocarbamate + Hexaconazole)	Company Identification Indofil Industries Limited KOLSHET, OFF SWAMI VIVEKANAND ROAD, AZAD NAGAR, SANDOZ BAUG P.O., THANE – 400 607. MAHARASHTRA (INDIA) TEL. NO: 00-91-22-67999100 FAX NO: 00-91-22-2589 83 57 / 59
Trade Name	Avtar	
Synonyms	Zineb 68%+Hexaconazole 4% WP	Chemical classification: Fungicide
IUPAC		
CAS Number	12122-67-7 79983-71-4	
Formula	C ₄ H ₆ N ₂ S ₄ Zn C ₁₄ H ₁₇ Cl ₂ N ₃ O	
SECTION 2. COMPOSITION / INFORMATION OF INGREDIENTS		
COMPONENT NAME	CAS REGISTRY NO	CONCENTRATION
Zineb	12122-67-7	68%
Hexaconazole	79983-71-4	4%
Other ingredients(Surfactants)		28%
SECTION 3. HAZARDS IDENTIFICATION		
EMERGENCY OVERVIEW Physical state : Solid Colour : Grey Powder Odor : Musty Odour Harmful or fatal if swallowed - can enter lungs and cause damage Contact can cause eye or skin irritation		

IMMEDIATE HEALTH EFFECTS

Eye contact	Moderately irritation to eyes.
Skin contact	Repeated or prolonged contact can cause irritation or dermatitis.
Ingestion	
Inhalation	Dust can irritate the nose and throat
Emergency Treatment	Move the subject to fresh air, rest and seek medical aid.

DELAYED OR OTHER HEALTH EFFECTS

Target organs	-----
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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
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Toxic <input checked="" 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 checked="" 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	Flush eyes with plenty of water for at least 15 minutes and see doctor
Skin	Remove contaminated clothes, wash skin with soap and water.
Ingestion	If swallowed dilute by giving 2 glasses of water to drink and call a doctor. Never give any by mouth to an unconscious person.
Inhalation	Move subject to fresh air and rest
Notes to physician	

SECTION 5 : FIRE FIGHTING MEASURES

NFPA Flammability Classification	-----
NFPA RATINGS	Health: 2 Flammability :0 Reactivity: 0
OSHA classification	
Flash point	146°C (Open Cup) (°C)
Flammability (Explosive limits)	4
Auto ignition Temperature	No Data Available

Hazardous Combustion products	Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulphuroxides, Zinc/zinc oxides
Extinguishing Media	Dry chemical powder, CO ₂ , Water, Water Spray
Protection of Fire Fighters	
Special Properties	Use Water spray to cool container. Wear self contained breathing apparatus.
Unusual Hazards	Fire produces toxic and flammable products. Hydrogen sulfide, CS ₂ , Oxides of Sulfur, Nitrogen and Carbon.
SECTION 6 : ACCIDENTAL RELEASE MEASURES	
Protective Measures	Eliminate all sources of ignition in the vicinity of the spill. If this material is released into the work area, evacuate the area immediately.
Spill Management	Scoop or shovel solid material into a suitable container. Keep dust to minimum. Flush cleaned area with water to chemical sewers. Keep spills and cleaning runoffs of municipal sewers and open bodies of water.

SECTION 7 : HANDLING AND STORAGE	
Handling	
Storage	Store in a dry shaded, well ventilated area. Do not allow it to become wet or over heated in storage because degradation of the material may occur and fire may be result. Provide plenty of ventilation to dissipate heat.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION	
Engineering controls	Provide exhaust ventilation or other engineering controls. An emergency eye wash station and safety shower should be located near the work-station .
Personal Protective Equipment	<p>Eye Protection: Wear eye protection such as safety glasses, chemical goggles, or face shields if engineering controls or work practices are not adequate to prevent eye contact. Contact lenses should not be worn when working with this chemical</p> <p>Hand protection: Avoid skin contact .Use gloves. Wash hands with plenty of mild soap and water before eating, drinking, use of toilet facilities or leaving work.</p> <p>Body protection: Avoid skin contact. Wear long-sleeved fire-retardant garments. Additional chemical-resistant protective gear may be required. This may include an apron, boots and additional facial protection.</p> <p>Respiratory Protection: Dust / mist filtering respirator or a NIOSH approved respirator .</p> <p>Work practices: users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside . Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing. Deluge safety shower and eye wash station should be located in work area</p>

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES			
Physical state	Solid	Appearance	Grey Powder
Odor	Musty odour	PH	NA
Specific gravity (Water = 1)	0.35 –0.50	Solubility in water @	Dispersible
Vapor pressure @ (mm Hg)	NA	Vapor density (Air=1)	NA
Viscosity	NA	Boiling point	NA
Melting point (°C)	Decomposes on Heating		

SECTION 10: STABILITY AND REACTIVITY	
Chemical stability	Stable
Conditions to Avoid	Keep dry and avoid excessive heat (> 49°C) and ignition sources.
Hazardous Decomposition Products	Hydrogen Sulfide, Carbon Disulfide, Oxides of carbon, Nitrogen and Sulphur
Hazardous Polymerization	Data not available

SECTION 11: TOXICOLOGICAL INFORMATION	
Acute Oral toxicity	LD50 Oral - rat - 1,850 mg/kg Remarks: Behavioral: Excitement. Diarrhoea Nutritional and Gross Metabolic: Weight loss or decreased weight gain. LD50 Oral - rat - female - 8,900 mg/kg
Acute Dermal toxicity	LD50 Dermal - rat - > 2,500 mg/kg LD50 Dermal - rat - > 2,500 mg/kg
Acute Inhalation toxicity	
Eye irritation: This material is irritating to the eyes Skin irritation: This material is irritating to the skin	

SECTION 12: ECOLOGICAL INFORMATION	
Toxicity Toxicity to fish Toxicity to daphnia and other aquatic invertebrates	LC50 - Lepomis macrochirus (Bluegill) - > 180 mg/l - 96 h EC50 - Daphnia magna (Water flea) - 0.6 - 1.8 mg/l - 48 h
Environmental fate	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

Contamination of both terrestrial and marine environments should be avoided
 No data

SECTION 14 : TRANSPORT INFORMATION

	Not regulated as a hazardous material by any mode of transportation. It is not a marine pollutant. Export water (IMO) : Not regulated Air (ICAO / IATA) : Not regulated
DOT Shipping Name	NA
DOT Hazard class	NA
DOT identification number	NA
DOT packing Group	NA
DOT additional information	Drum to be placed in a well ventilated area and in a secure position.

SECTION 15: REGULATORY INFORMATION

TSCA Inventory	No data
SARA 311/312 Hazard Identification	Acute Health Hazard, Chronic Health Hazard
SARA 302/304 Emergency planning and notification	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
CERCLA	No data
Clean air act (CAA)	Not applicable

SECTION 16: OTHER INFORMATION

NFPA RATINGS	Health: 2	Flammability :0	Reactivity: 0
HMIS RATINGS	Health: 2	Flammability :0	Reactivity: 0
	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	Telegraphic Code		Fax 22767 5083	Fax 22712 9242
Local Bodies Involved		Collector of Thane		

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