



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- 556**MATERIAL SAFETY DATA SHEET****SECTION 1. PRODUCT IDENTIFICATION**

Chemical Name	PROPARGITE 50% + BIFENTHRIN 5% SE	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		
Synonyms	PROPARGITE BIFENTHRIN	GROUP: Sulfur Ester Acaricide Pyrethroid Ester
IUPAC	Propargite: (1RS,2RS;1RS,2SR)-2-(4-tert-butylphenoxy) cyclohexyl prop-2-ynyl sulfite Bifenthrin: 2-methylbiphenyl-3-ylmethyl (1RS,3RS)-3-[(Z)-2-chloro-3,3,3-trifluoroprop-1-enyl]-2,2-dimethylcyclopropanecarboxylate	
CAS Number	2312-35-8 82657-04-3	CLASS: Acaricide
Formula	C ₁₉ H ₂₀ O ₄ S C ₂₃ H ₂₂ ClF ₃ O ₂	

SECTION 2. COMPOSITION / INFORMATION OF INGREDIENTS

COMPONENT NAME	CAS REGISTRY NO	CONCENTRATION
PROPARGITE	2312-35-8	50%
BIFENTHRIN	82657-04-3	5%
Other Ingredients	----	Q.S.

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state: Suspension Liquid

Colour: Off-white to White

INGESTION: Harmful if swallowed.

INHALATION: Harmful if inhaled.

EYE CONTACT: May cause eye irritation.

SKIN CONTACT: May cause irritation.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

IMMEDIATE HEALTH EFFECTS

Eye contact	Slightly irritation to eyes
Skin contact	Moderately irritating
Ingestion	Harmful if swallowed
Inhalation	Harmful if inhaled

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	Irrigate the eyes with large amount of water or normal saline occasionally lifting upper and lower lids until no evidence of chemical remains and obtain a medical help.
Skin	Remove contaminated clothing and shoes immediately. Wash contaminated area with soap or mild detergent and large amount of water until no effects of chemical remains. If symptoms persist get medical help. Propargite may be absorbed through the skin with a resultant toxic effect.

Ingestion	Remove by gastric lavage and catharsis; maintain blood pressure and airway, give oxygen if respiration is depressed. Do not perform gastric lavage if victim is unconscious. Get medical attention immediately.
Inhalation	Remove the patient from the exposure area to fresh air immediately. If breathing has stopped perform the artificial respiration. Keep person warm and rest. Get medical attention immediately
Notes to physician	No specific antidote. Treat symptomatically.

SECTION 5 : FIRE FIGHTING MEASURES

NFPA Flammability Classification	-----
NFPA RATINGS	Health: --- Flammability: --- Reactivity: ----
OSHA classification	No data
Flash point	NA
Flammability (Explosive limits)	NA
Auto ignition Temperature	Not available
Hazardous Combustion products	During a fire, irritating and possibly toxic gases like carbon dioxide, carbon monoxide, nitrogen oxides, sulfur dioxide, hydrogen chloride, may be generated by thermal decomposition or combustion
Extinguishing Media	Dry chemical, CO ₂ , Water spray, standard foam. For larger fire, use water spray, fog or standard foam.
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. Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Protective Measures	Ensure suitable personal protection during removal of spillages. This means wearing a face mask that gives protection against organic vapours, eye protection, chemically resistant gloves, boots and coveralls.
Spill Management	Absorb the material in the sand, soil, diatomaceous earth or suitable absorbent. Place in suitable material and remove to safe place or dispose of in an incinerator approved for chemicals.

SECTION 7 : HANDLING AND STORAGE

Handling & Storage procedure	<p>Use appropriate (impervious) clothing, gloves and closed footwear to prevent the repeated contact with skin.</p> <p>Use flash proof and dust resistant goggles to prevent the contact with eyes.</p> <p>Keep the product in original container tightly closed and correctly labeled. Store in suitable, cool, dry, well-ventilated place under lock and key; away from the reach of the children, animals, food and animal feeding stuffs. Store away from the incompatible substances and source of ignition.</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	Eye / face Protection: Safety Glasses or goggles. Skin protection: Avoid skin contact. Rubber gloves should be worn whenever this material is handled. Wash hands with clean water. Body protection: Avoid skin contact. Wear impervious clothing and closed foot ware. Respiratory Protection: Wear suitable mask.

Occupational exposure limits (exposure limit information)

Component	Limit	TWA	STEL	Ceiling	Notation
Propargite + Bifenthrin SE	OSHA ACGIH	No data	No data	No data	No data

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Suspension Liquid	Colour	Off-white to white
Odor	Slight	pH (1%)	6 To 7.5
Specific gravity	1.075	Solubility in water	Forms suspension in water
Vapor pressure @ 25°C	Not applicable	Vapor density	Not applicable
Viscosity	Not applicable	Boiling point	No data
Melting / Freezing point	No data	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	Incompatible with strong acids and alkaline material.
Hazardous Decomposition Products	Decomposition will evolve toxic and Irritant vapors. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke.
Hazardous Polymerization	The product will not undergo polymerization reaction.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity (Assessment largely or completely based on data for Propargite and Bifenthrin Active Substance)	
Acute Oral toxicity	LD ₅₀ for Propargite technical is 2843 mg/kg (rats) LD ₅₀ for Bifenthrin technical is 54.5 mg /kg (rats)
Acute Dermal toxicity	LD ₅₀ for Propargite technical is >4000 mg/kg (rabbits)

	LD ₅₀ for Bifenthrin technical is > 2000 mg/kg (rabbits)
Acute Inhalation toxicity	LC ₅₀ for Propargite technical is 0.05 mg/l (4 h) (rats) LC ₅₀ for Bifenthrin technical is 1.01 mg/l (4 h) (rats)
Eye irritation (Rabbit): Sever eye irritating	
Skin irritation(Rabbit) : Sever skin irritating	
Skin Sensitization(Guinea Pig): No skin sensitization - Bifenthrin and Propargite	

SECTION 12: ECOLOGICAL INFORMATION

Acute toxicity (Assessment largely or completely based on data for Propargite and Bifenthrin Active Substance)

Aquatic Toxicity:

Fish LC ₅₀ (96 h)	Propargite: Rainbow Trout 0.118 mg/l ; Bluegill sunfish 0.168 mg/l ; cat fish 0.004 mg/l Bifenthrin: Rainbow Trout 0.00015 ; Bluegill sunfish 0.00035 mg/l
Daphnia (EC ₅₀ ,48h)	Propargite: 0.092 mg/l ; Bifenthrin: 0.00016 mg/l
Bird	
Dietary LC ₅₀	Mallard duck > 4640 mg/kg ; Bobwhite Quail 3401 mg/kg – Propargite Mallard duck 1280 mg/kg ; Bobwhite Quail 4450 mg/kg daily- Bifenthrin
Honey Bee	
LD ₅₀ (Oral)	0.1 µg/bee for Bifenthrin ;
LD ₅₀ (Contact)	0.01462 µg/bee for Bifenthrin ; 15 µg/bee Propargite

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

DOT Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SUSPENSION LIQUID, N.O.S. (PROPARGITE + BIFETHRIN)
DOT Hazard class	Class 9 UN Number 3082
DOT identification number	Packaging Group III
DOT additional information	The product is not classified as Dangerous goods. No special transport conditions are necessary unless required by other regulations.

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 N Reactive N Sudden Release of pressure N
SARA TITLE 3 : SECTION 311/312 Hazard Identification	Harmful, Toxic

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 : --	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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Local Bodies Involved	Collector of Thane		

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