

**INDOFIL CHEMICALS COMPANY**  
 KOLSHET, OFF SWAMI VIVEKANAND ROAD,  
 AZAD NAGAR, SANDOZ BAUG P.O.,  
 THANE – 400 607. MAHARASHTRA (INDIA)  
 TEL. NO. : 00-91-22-6799 9100  
 FAX NO. : 00-91-22-2589 83 57 / 59



## MATERIAL SAFETY DATA SHEET

2-R&amp;D-MSDS- AGRO-FP- 434

<b>SECTION 1. PRODUCT IDENTIFICATION</b>		
<b>Chemical Name</b>	<b>O,O-Diethyl-O-Quinoxaliny-(2)-Thionophosphate</b>	<b>Company Identification</b> INDOFIL CHEMICALS COMPANY KOLSHET, OFF SWAMI VIVEKANAND ROAD, AZAD NAGAR, SANDOZ BAUG P.O., THANE – 400 607. MAHARASHTRA (INDIA) TEL. NO. : 00-91-22-6799 9100 FAX NO. : 00-91-22-2589 83 57 / 59
<b>Trade Name</b>	Flash 25% EC	
<b>Synonyms</b>	Quinalphos	<b>Chemical classification:</b> Organophosphorus Compound
<b>IUPAC</b>	O, O-diethyl-O-quinoxanil-2-yl phosphorothioate	
<b>CAS Number</b>	13593-03-8	
<b>Formula</b>	C <sub>11</sub> H <sub>10</sub> O <sub>3</sub> N <sub>2</sub> S	

**SECTION 2. COMPOSITION / INFORMATION OF INGREDIENTS**

<b>COMPONENT NAME</b>	<b>CAS REGISTRY NO</b>	<b>CONCENTRATION</b>
Quinalphos	13593-03-8	25%
Emulsifiers	13593-03-8	
Solvent		

## SECTION 3. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Physical state : Liquid  
 Colour : Yellow colour EC  
 Odor threshold : Mild odour

Harmful or fatal if swallowed - can enter lungs and cause damage  
 Contact can cause eye or skin irritation

### IMMEDIATE HEALTH EFFECTS

<b>Eye contact</b>	Flush eyes with plenty of water for at least 15 minutes and see a doctor
<b>Skin contact</b>	Remove contaminated clothes, wash skin with soap and water
<b>Ingestion</b>	If swallowed dilute by giving 2 glasses of water to drink and call a doctor. Never give by mouth to an unconscious person
<b>Inhalation</b>	Move subject to fresh air and rest

### 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 type="checkbox"/>	Highly Toxic <input type="checkbox"/>	Flammable <input checked="" 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**

<b>Eye</b>	Flush yes with plenty of water for at least 15 minutes and see doctor
<b>Skin</b>	Remove contaminated clothes, wash skin with soap and water
<b>Ingestion</b>	If swallowed dilute by giving 2 glasses of water to drink and call a doctor. Never give by mouth to an unconscious person.
<b>Inhalation</b>	Move subject to fresh air and rest.
<b>Notes to physician</b>	

**SECTION 5 : FIRE FIGHTING MEASURES**

<b>NFPA Flammability Classification</b>	-----
<b>NFPA RATINGS</b>	Health: 1          Flammability:1          Reactivity: 1
<b>OSHA classification</b>	
<b>Flash point</b>	26°C (Open Cup)
<b>Flash point</b>	Min 43°C (Closed Cup)
<b>Flammability (Explosive limits)</b>	
<b>Auto ignition Temperature</b>	
<b>Hazardous Combustion products</b>	Produces Sulfur dioxide and trioxide
<b>Extinguishing Media</b>	Dry chemical powder, CO <sub>2</sub> , Water, Water spray
<b>Protection of Fire Fighters</b>	Wear NIOSH / MSHA approved self-contained breathing apparatus and full protective clothing.
<b>Special Properties</b>	Use water spray to cool containers, wear self-contained breathing apparatus.
<b>Unusual Hazards</b>	Fire produces toxic and flammable products : Hydrogen sulfide, CS <sub>2</sub> , Oxides of Sulfur, Nitrogen and Carbon

**SECTION 6 : ACCIDENTAL RELEASE MEASURES**

<b>Protective Measures</b>	Eliminate all sources of ignition in the vicinity of the spill. If this material is released into the work area, evacuate the area immediately.
<b>Spill Management</b>	Steps to be taken: Eliminate ignition source. Ventilate area. Contain liquid spill with inert material (sand, earth, etc.). Scoop or shovel solid material into a suitable container. Keep dust to minimum. Flush cleaned area with water to a chemicals sewer. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.

**SECTION 7 : HANDLING AND STORAGE**

<b>Handling</b>	<p>A spill can cause an immediate fire or explosion hazard. Keep containers closed and do not handle or store near heat, sparks or any other potential ignition sources. Use only with adequate ventilation and personal protection. Avoid contact with eyes, skin, and clothing. Prevent contact with food and tobacco products. Do not reuse empty bag</p> <p>When performing repairs and maintenance on contaminated equipment, Keep unnecessary persons away from area. Eliminate all potential ignition sources. Use gloves constructed of impervious materials and protective clothing if direct contact is anticipated. Provide adequate ventilation. Promptly remove contaminated clothing. Wash exposed skin thoroughly with soap and water after handling.</p>
<b>Storage</b>	<p>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 result. Provide plenty to ventilation to dissipate heat.</p>

**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

<b>Engineering controls</b>	<p>Provide exhaust ventilation or other engineering controls. An emergency eye wash station and safety shower should be located near the work-station.</p>
<b>Personal Protective Equipment</b>	<p><b>Eye Protection:</b> 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><b>Hand protection:</b> 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><b>Body protection:</b> 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><b>Respiratory Protection:</b> Dust / mist filtering respirator or a NIOSH approved respirator.</p> <p><b>Work practices:</b> 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>

**Occupational exposure limits**

Component	Limit		
Quinalphos	NA		
Emulsifiers	NA		
Solvent	NA		

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state</b>	Liquid	<b>Appearance</b>	Green Coloured Liquid
<b>Odor</b>	Malodorous , weak	<b>PH</b>	5.0 – 6.0
<b>Specific gravity (water=1)</b>	0.97 – 1.0	<b>Solubility in water</b>	Emulsifiable
<b>Vapor pressure @ (mm Hg)</b>	--	<b>Vapor density (air=1)</b>	> 1
<b>Viscosity</b>	--	<b>Boiling point (°C)</b>	156-232
<b>Melting point</b>	No data		

**SECTION 10: STABILITY AND REACTIVITY**

<b>Chemical stability</b>	Stable
<b>Conditions to Avoid</b>	Keep dry and avoid excessive heat and ignition sources.
<b>Material Incompatibility</b>	Oxidizing material
<b>Hazardous Decomposition Products</b>	Data not available
<b>Hazardous Polymerization</b>	Data not available

**SECTION 11: TOXICOLOGICAL INFORMATION**

Acute Oral toxicity	LD 50 (Oral-Rat) – 71 mg/Kg
Acute Dermal toxicity	
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**

<b>Ecotoxicity</b>	Contamination of both terrestrial and marine environments should be avoided.
<b>Environmental fate</b>	No data

**SECTION 13: DISPOSAL CONSIDERATIONS**

Waste Disposal Method : Incinerate in approved equipment in accordance with local regulations.

**SECTION 14 : TRANSPORT INFORMATION**

	Not regulated as a hazardous material by any mode of transportation. It is not a marine pollutant. <b>Export water (IMO)</b> : Not regulated <b>Air (ICAO / IATA)</b> : Not regulated
<b>DOT Shipping Name</b>	Not regulated
<b>DOT Hazard class</b>	Not regulated
<b>DOT identification number</b>	No data
<b>DOT packing Group</b>	No data
<b>DOT additional information</b>	No data

**SECTION 15: REGULATORY INFORMATION**

<b>TSCA Inventory</b>	No data
<b>SARA 311/312 Hazard Identification</b>	Immediate ( acute) health effects: yes Delayed ( chronic) health effects: yes Reactive: yes This product contains the substances subject to the reporting requirements of SARA title 3, section 313 and 40 CFR part 372.
<b>SARA 302/304 Emergency planning and notification</b>	No data
<b>SARA 313 Toxic chemical notification and Release reporting</b>	This product contains the following components in concentrations above that are listed as toxic chemicals in 40 CFR part 372 pursuant to the requirements of section 313 of SARA.
<b>CERCLA</b>	No data
<b>Clean air act (CAA)</b>	Not applicable

**SECTION 16: OTHER INFORMATION**

<b>NFPA RATINGS</b>	Health : 1	Flammability :1	Reactivity :1
<b>HMIS RATINGS</b>	Health : 1	Flammability :1	Reactivity :1
	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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Telephone 6799 9100	Telex		Telephone 22767 5084	Telephone 22712 2302
Fax 2589 8357	Telegraphic Code		Fax 22767 5083	Fax 22712 9242
Local Bodies Involved	Collector of Thane			

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