

**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- 401

<b>SECTION 1. PRODUCT IDENTIFICATION</b>		
<b>Chemical Name</b>	<b>Atrazine</b> 2-chloro-4-Ethylamino-6-isopropylamino-S-Triazine	<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>	ATRAFIL (ATRAZIN 50% WP)	
<b>Synonyms</b>		<b>Chemical classification:</b> S-Triazine Herbicide
<b>IUPAC</b>		
<b>CAS Number</b>	1912-24-9	
<b>Formula</b>	C <sub>8</sub> H <sub>14</sub> ClN <sub>5</sub>	

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

<b>COMPONENT NAME</b>	<b>CAS REGISTRY NO</b>	<b>CONCENTRATION</b>
ATRAZINE	1912-24-9	50% Wettable powder
Inert ingredient		Q. S to 100

**SECTION 3. HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW**

Physical state : Powder

Harmful by ingestion, inhalation and in contact with skin.

**IMMEDIATE HEALTH EFFECTS**

<b>Eye contact</b>	May cause irritation of the eyes.
<b>Skin contact</b>	May cause irritation of the skin.
<b>Ingestion</b>	If swallowed, nausea, vomiting or diarrhea can result.
<b>Inhalation</b>	NA

**DELAYED OR OTHER HEALTH EFFECTS**

<b>Target organs</b>	-----
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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 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**

<b>Eye</b>	Flush eyes with large amount of water for at least 15 minutes and see doctor. Obtain medical advice immediately.
<b>Skin</b>	Remove contaminated clothing, wash skin with soap and water including hair and under fingernails. Consult a physician if irritation persists.
<b>Ingestion</b>	If victim is fully conscious, immediately give 1 or 2 glasses of water to drink and induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention immediately.
<b>Inhalation</b>	Remove the affected person from the danger zone to a well-ventilated room or to fresh air, and protect from under cooling. IN CASE OF SUSPECTED POISONING: Immediately call a physician.
<b>Notes to physician</b>	No specific antidote is known. If a large amount has been ingested and emesis has been inadequate, lavage stomach. Five mg/kg of activated charcoal suspension (50g/400 ml water) can be given to absorb the remaining toxicant. Based on acute oral LD50 in rats, ingestion of 2 ounces or more of Atrazine 50 may be fatal to a human.

<b>SECTION 5 : FIRE FIGHTING MEASURES</b>	
<b>NFPA Flammability Classification</b>	-----
<b>NFPA RATINGS</b>	Health: 1          Flammability :1          Reactivity: 1
<b>OSHA classification</b>	NA
<b>Flash point</b>	>200oF (TCC ) ( Non-combustible )
<b>Flammability (Explosive limits)</b>	NA
<b>Auto ignition Temperature</b>	NA
<b>Hazardous Combustion products</b>	Carbon monoxide, Hydrogen cyanide, Acetonitrile
<b>Extinguishing Media</b>	Dry chemical powder, CO2, 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>	Wear self contained breathing apparatus.
<b>SECTION 6 : ACCIDENTAL RELEASE MEASURES</b>	
<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>	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.

<b>SECTION 7 : HANDLING AND STORAGE</b>	
<b>Handling</b>	<p>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. 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>	Store in a dry shaded, well ventilated area. Provide plenty of ventilation to dissipate heat.

<b>SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION</b>	
<b>Engineering controls</b>	Provide exhaust ventilation or other engineering controls. An emergency eye wash station and safety shower should be located near the work-station .
<b>Personal Protective Equipment</b>	<p><b>Eye Protection:</b> Safety glasses</p> <p><b>Hand protection:</b> Safety Gloves</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> Good Ventilation</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		
	NA		

#### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	White powder	<b>Colour</b>	White
<b>Odor</b>	Odorless	<b>PH</b>	NA
<b>Specific gravity (Water=1)</b>	NA	<b>Solubility in water</b>	33 ppm@ 20oc(Tech )
<b>Vapor pressure@ 20°C (mm Hg)</b>	1.5 at 20oc	<b>Density g cm<sup>-3</sup></b>	NA
<b>Viscosity</b>	-	<b>Boiling point (°C)</b>	NA
<b>Melting point (°C)</b>	NA		

#### SECTION 10: STABILITY AND REACTIVITY

<b>Chemical stability</b>	Stable
<b>Conditions to Avoid</b>	Excessive temperature
<b>Material Incompatibility</b>	With acids & alkalies
<b>Hazardous Decomposition Products</b>	Carbon monoxide, Hydrogen cyanide, Acetonitrile

<b>Hazardous Polymerization</b>	Will not occur
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### SECTION 11: TOXICOLOGICAL INFORMATION

Acute Oral toxicity	LD 50 (Oral Rat) : 1,075 to 1,886 mg/kg body weight
Acute Dermal toxicity	LD50 (Rabbit) = >5,000 mg/kg body weight
Acute Inhalation toxicity	LC50 (Rat) = >4.1 mg/l air-4 hrs.
<p>Eye irritation: This material is irritating to the eyes  Skin irritation: This material is irritating to the skin  Harmful by ingestion, inhalation and in contact with skin.  <b>Effects of overexposure</b> : Dermatitis, conjunctivitis, muscular weakness, hyperactivity, ptosis, dyspnea, convulsions</p>	

### 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

Incinerate in approved equipment in accordance with local regulations.
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### SECTION 14 : TRANSPORT INFORMATION

	<p>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</p>
<b>DOT Shipping Name</b>	
<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>	<p>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.</p>
<b>SARA 302/304 Emergency planning and notification</b>	No data
<b>SARA 313 Toxic chemical</b>	This product contains the following components in

<b>notification and Release reporting</b>	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 589 8357	Telegraphic Code	Fax 22767 5083	Fax 22712 9242
Local Bodies Involved	Collector of Thane		

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