

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&D-MSDS- AGRO-FP- 426

SECTION 1. PRODUCT IDENTIFICATION		
Chemical Name	DODINE 65% WP	Company Identification 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
Trade Name	Noor	
Synonyms	Dodine, n-dodecylguanidine acetate	Chemical classification: Guanidine Fungicide
IUPAC	1-dodecylguanidinium acetate	
CAS Number	2439-10-3	
Formula	C ₁₅ H ₃₃ N ₃ O ₂	

SECTION 2. COMPOSITION / INFORMATION OF INGREDIENTS

COMPONENT NAME	CAS REGISTRY NO	CONCENTRATION
DODINE	2439-10-3	65%

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state : Powder
 Colour : White to off-white
 Odor : Very slight 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	May cause sever eye irritation.
Skin contact	Prolonged or repeated skin contact may cause irritation.
Ingestion	Ingestion may cause irritation to the gastrointestinal tract, nausea, abdominal pain, vomiting and diarrhea. Sub chronic effects: None known.
Inhalation	High concentrations products is irritant to the nose, throat respiratory tract.
Emergency Treatment	Move subject to fresh air. Apply artificial respiration and oxygen, if necessary, seek medical aid immediately.

DELAYED OR OTHER HEALTH EFFECTS

Target organs	-----
---------------	-------

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	Flush eyes with large amount of water for at least 15 minutes and see doctor. Obtain medical advice immediately.
Skin	Wash with water

Ingestion	If victim is alert and not convulsing, rinse mouth out and give 200-300 ml of water to dilute material. Do not induce vomiting. if spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomit, rinse mouth and administer more water. Obtain medical attention.
Inhalation	Move victim to fresh air. Give artificial respiration only if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no breathing and no pulse. Obtain medical advice immediately.
Notes to physician	

SECTION 5 : FIRE FIGHTING MEASURES

NFPA Flammability Classification	-----
NFPA RATINGS	Health: 1 Flammability :1 Reactivity: 1
OSHA classification	
Flash point	NA
Flammability (Explosive limits)	--
Auto ignition Temperature	No data
Hazardous Combustion products	--
Extinguishing Media	For large fire apply aqueous film forming foam or if only water is available use in the form of fog. For small fires use carbon dioxide or dry chemical.
Protection of Fire Fighters	Special procedures: wear self-contained breathing apparatus and clothing. Minimize the amount of water used and contain the run off from entering local water supplies and the environment by dyking.
Special Properties	Oxides of carbon and nitrogen and noxious fumes may be generated due to decomposition of the above ingredients. Explosive potential for dusts as with any organic dust, such as flour.

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	<p>Steps to be taken :</p> <p>For release to land, stop any further release and spread of contamination, wash hard surfaces with detergent and water and absorb with suitable absorbent.</p> <p>To release to water, stop any further release and utilize damming and / or water diversion to minimize the spread of contamination. Collect the spilled material any contaminated soil, water and absorbent then place in a waste container for proper disposal. Avoid infiltration of larger quantities in to drains, surface water, ground water and soil.</p>

SECTION 7 : HANDLING AND STORAGE

Handling	Handling procedures : Use only with adequate ventilation. Locate safety shower and eyes wash station close to chemical handling area. Use normal good industrial hygiene and housekeeping practices.
Storage	Storage requirements: Keep containers closed. Prevent moisture contamination . Do not reseal if contamination is suspected. Keep out of reach of children and pets. Storage Temperature: Do not expose sealed containers to temperatures above 40 degree.

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>

Occupational exposure limits

Component	Limit		
DODINE	NA		

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES			
Physical state	Powder	Colour	Whit to off White
Odor	Very slight musty odour	PH (1%)	6 to 7.5
Specific gravity (Water=1)	--	Solubility in water	Disperses with minimal agitation
Vapor pressure@ 20°C (mm Hg)	No Data	Vapor density (Air=1)	No data
Density	0.22 to 0.28	Boiling point (°C)	NA
Melting point (°C water)	136°C		

SECTION 10: STABILITY AND REACTIVITY	
Chemical stability	Stable
Conditions to Avoid	Not known other than excessive heat. Keep away from heat and ignition sources. Avoid moisture in storage . stable at room temperature
Material Incompatibility	Incompatible with anionic surfactants compatible with most other pesticides, but incompatible with chlorobenzilate, lime sulfur, oils emulsions and hard water. Incompatible with oxidizing agent and strong bases Hazardous with oxidizing polymerization will not occur.
Hazardous Decomposition Products	Data not available
Hazardous Polymerization	Data not available

SECTION 11: TOXICOLOGICAL INFORMATION	
Acute Oral toxicity	LD 50 (oral – Rat) = Acute oral LD 50 for male rats 1000mg/kg
Acute Dermal toxicity	> 1500 mg/Kg. (rabbits , by single 24-hours skin contact).(56)
Acute Inhalation toxicity	
Eye irritation: Concentrated material cause eye irritation (30 d) Skin irritation: This material is irritating to the skin	

SECTION 12: ECOLOGICAL INFORMATION	
Ecotoxicity	Dodine is toxic to aquatic organisms. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds or rivers.
Environmental fate	No data

SECTION 13: DISPOSAL CONSIDERATIONS	
Use material for its intended purpose or recycle if possible. This material , if it must be discarded , may meet the criteria of a hazardous waste as defined by US EPA under RCRA	

(40 CFR part 261) or other state and local 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. Breaking, crushing or puncturing the container to prevent reuse.

Disposal Should be in accordance with local state or national legislation. Remove to a safe location and bury on an authorized landfill site. Do not burn empty containers or Product.

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	
DOT Hazard class	Not regulated
DOT identification number	No data
DOT packing Group	No data
DOT additional information	No data

SECTION 15: REGULATORY INFORMATION

TSCA Inventory	No data
SARA 311/312 Hazard Identification	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.
SARA 302/304 Emergency planning and notification	No data
SARA 313 Toxic chemical notification and Release reporting	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.
CERCLA	No data
Clean air act (CAA)	Not applicable

SECTION 16: OTHER INFORMATION

NFPA RATINGS	Health : 1	Flammability :1	Reactivity :1
HMIS RATINGS	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

Name of Firm : INDOFIL CHEMICALS COMPANY				
Mailing Address : Kolshet, Off Swami Vivekanand Road, Azad Nagar, Sandoz Baug P.O. Thane – 400 607.		Gat No. 194, Village – Gahunje, Tal. Maval, Dist. Pune.	S-26 (T), MIDC, Bhosari, Pune – 411 026.	
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			

DISCLAIMER

The Information contained in this material data sheet is believed to be reliable but no representation, guarantee or warranties, of any kind are made as to its accuracy, suitability for a particular application or results to be obtained from them. It is however ensured that the information contained in the material safety data sheet is relevant to the product manufactured / handled or sold as the case may be by us. Indofil Chemicals Company makes no warranty expressed or implied in respect of the adequacy of this document for any particular purpose.

Last updated :20/04/2007