

1: IDENTIFICATION

Chemical Name	Diuron: 3-(3,4-Dichlorophenyl)-1,1-dimethylurea		
Synonyms	Diuron 80% WP	Trade Name DORON (DIURON 80% WP)	
Uses	Herbicide	Molecular Formula	C ₉ H ₁₀ Cl ₂ N ₂ O
Manufacturer/ Supplier	Ulink AgriTech Pvt. Ltd. Office Nos. 001 And 002, Ground Floor Wing "A" And Nos. 003 And 004 Ground Floor Wing "B", Nyati Tech Park, Wadgaon Sheri, Pune - 411014, Maharashtra		
Emergency Contact	9503095030	E-mail	info@agrostar.in

2: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Name	CAS #	Percent or Content (w/w)
Diuron	330-54-1	78 - 82 %

3: HAZARD IDENTIFICATION

Human Health Hazard: Harmful if swallowed. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure if swallowed.

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

4: FIRST AID MEASURES

General: Have the product container, label or safety data sheet while seeking medical attention, a poison control center or physician, or going for treatment.

Inhalation: Move patients to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing is difficult, treat with artificial respiration. Immediately seek medical attention if symptoms are severe or persist

Ingestion: Rinse mouth with water thoroughly and give plenty of water to drink. Never give anything by mouth to an unconscious person. Seek medical attention or poison control center immediately and show this container or label.

Skin Contact: In case of contact with product, remove contaminated clothes and wash exposed skin area with plenty of water and soap immediately. Seek medical attention if irritation persists.

Eye Contact: Rinse immediately with plenty of water for several minutes. After 5 minutes remove contact lenses if present and continue rinsing with plenty of water. Continue to rinse with eyelid wide open for at least 15-20 minutes. Seek medical attention if irritation develops.

Note to physician: No specific Antidote. Treat symptomatically.

5: FIRE FIGHTING MEASURES

Extinguishing Media: Water spray or fog, alcohol-resistant foam, dry chemical powder or carbon dioxide

Specific Hazards: In the event of fire, toxic and irritating vapours or gases may be released. Exposure to decomposition products may be a hazard to health.

Hazardous Thermal (de)composition: Chloride compounds, nitrogen oxides (NO, NO₂), carbon oxides (CO, CO₂).

Special Procedures: Evacuate area and fight fire upwind from a safe distance. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinguishing small fire and alcohol-resistant foam or water spray for extinguishing large fire. Minimize use of water to prevent environmental contamination. Dike and collect water used to fight fire to prevent environmental damage due to runoff. Do not discharge extinguishing water into the drain or water bodies.

Protection of Fire Fighters: Do not breathe a fumes, Wear fire/ flame resistant/retardant clothing. Do not enter fire area without proper protective equipment, including respiratory protection.

6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ensure adequate ventilation. Avoid contact with the skin, eyes and clothing. Avoid dust formation. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas and keep them away from and upwind of spill/leak.

Environmental Precaution: Do not allow runoff to enter drains and public waters. Notify the authorities if product enters.

Methods for Cleaning-up: Absorb in sand or other inert material. Collect spills and put it into appropriated container. Dispose of this material and its container at hazardous or special waste collection point. Keep away from combustible material. Clean contaminated floors and objects thoroughly with water and detergents. Dispose of in accordance with local regulations.

7: HANDLING & STORAGE

Handling: Do not smoke, drink, or eat during handling. Wash hands and other exposed areas with mild soap and water before and after handling material. Wear protective equipments to avoid contact and/or inhalation with the product. Wash clothing and equipment before reuse. Good personal hygiene procedures must be practiced.

Specific Conditions: Good local exhaust ventilation.

Storage: Store in dry, cool, well-ventilated area and away from direct sunlight. Keep in original container and tightly closed when not in use. Keep product away from seeds, fertilizer, foods and animal feeds. Keep out of reach of the children.

8: EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering measures: Ensure adequate ventilation and set up emergency exits and the risk-elimination area. Handle in accordance with good industrial hygiene and safety practice. TLV: Diuron: 10 mg/m³. Adequate ventilation is required.

General Protection: Avoid breathing dust, vapours or aerosols. Avoid contact with eyes and skin. While handling the product wear cotton overalls buttoned to the neck and wrist, elbow-length PVC gloves. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

Personal Protection: Follow all precautions and instructions on the label. In all other cases the following recommendations would apply.

Respiratory Protection: No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation

Skin Protection: Wear suitable protective clothing, including long sleeved shirt, long pants, gloves, coveralls, and boots to avoid skin contact.

Hand Protection: Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC) or Viton.

Eye Protection: Safety goggles, chemical splash goggles or face shield should be used. Safety showers and eyewash should be easily available.

Others: Wash clothing before reusing.

9: PHYSICAL/CHEMICAL PROPERTIES

Appearance: Granular solid	Physical State: Solid	Odour: Faint odour	Oxidising properties: Not oxidizing
Colour: White to off-white	Explosive Properties: Not explosive	Solubility in Water: Miscible	
Bulk Density [gm/ml]: 0.6 - 0.64	Melting Point [°C]: 158-159	Flammability: Not flammable	

10: STABILITY & REACTIVITY

Stability: Stable under normal circumstances.

Hazardous Decomp. Products: On combustion or thermal decomposition, Chloride compounds, nitrogen oxides (NO, NO₂), carbon oxides (CO, CO₂) may be released.

Materials to Avoid: Oxidizing agents, Acids, Alkali.

11: TOXICOLOGICAL INFORMATION

Rat oral LD₅₀ [mg/kg]: >2000 Rat inhalation LC₅₀ [mg/l/4h]: >2.03 Maximum concentration attainable Skin irritation (rabbit): Mild irritant

Dermal (rat) LD₅₀ [mg/kg]: >2000 Skin Sensitization (Guinea Pig): Not sensitizer Eye irritation (rabbit): Not irritant

Mutagenicity: (Diuron): Not mutagenic **Carcinogenicity: (Diuron):** EPA Group C: Possible human carcinogen.: EU: Carc. Cat. 3

Toxic for reproduction: Fertility: (Diuron): No adverse health effects were noted.

Toxic for reproduction: (Diuron): Not teratogenic in animal experiments (Low doses)

12: ECOLOGICAL INFORMATION

Ecotoxicity:

Rainbow trout LC ₅₀ (96 hrs) [mg/L]: 5.6	Daphnia magna EC ₅₀ (48 hrs) [mg/L]: 4.8	Japanese quail EC ₅₀ (96 hrs) [mg/kg]: 413.78
Algae EC ₅₀ (72 hrs) [mg/L]: 0.025		Bees LD ₅₀ [µg]: Not toxic to bees

Bio-accumulation Potential: Low bioaccumulation potential (Log Pow=2.8).

Persistence, Degradability in soil: The product is persistent. Half-life time (t_{1/2}) 90-180 days.

Mobility in Soil: Low mobility. Adsorbed on organic matter and clay. Low risk of underground water contamination.

13: DISPOSAL CONSIDERATION

Waste-disposal Procedures: Dispose of in a pesticide approved landfill, or in a chemical incinerator equipped with scrubbers. Dispose in a safe manner in accordance with local/national regulations.

Contaminated Packaging: Empty remaining contents and the rinse containers thrice before disposal. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers unless they are specifically designed to be refilled

14: TRANSPORT INFORMATION

UN No. 3077 **Proper Shipping Name:** Environmentally Hazardous Substance, solid, N.O.S (Diuron)

Land Transport (ADR/RID): Class-9, Packing Group-III **Sea Transport (IMO) (IMDG):** Class-9, Packing group-III, Marine Pollutant-Yes

Air Transport (IATA / ICAO): Class-9 Packing group-III

15: REGULATORY INFORMATION

Hazard Symbol: GHS09; Xn: Harmful; N: Dangerous for the environment

R Phrase(s): R22, R40, R48/22, R50/53.

S Phrase(s): S2, S13, S20, S29/35, S36/37, S46, S57, S61

16: OTHER INFORMATION

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