

## MATERIAL SAFETY DATA SHEET

PRODUCT : Diflubenzuron 25% WP

PRODUCT DESIGNATION : Insecticide

### **Section 1. Product & Company Identification**

Common Name : Diflubenzuron

Grade : Formulation

Active Ingredient : Diflubenzuron

Chemical Name of Active Ingredient (IUPAC) : N-[(4-chlorophenyl)carbamoyl]-2,6-difluorobenzamide

Chemical Family of A. I. : benzoylphenylurea

Molecular Formula of A. I. :  $C_{14}H_9ClF_2N_2O_2$

Molecular Mass of A. I. : 310.68 g/mol

Manufacturer & Supplier : **M/s United Chemicals**  
**Head Office:** B-371, 1<sup>st</sup> Floor, Meera Bagh, New Delhi, India  
**Factory:** 15/1, 15/2, 15/3, industrial Area, Vidisha, M.P.

Telephone Number : +91-11-25258770

### **Section 2. Composition / Information on Ingredients**

<b>Name of Components</b>	<b>Concentration% w/w</b>
Diflubenzuron	25.00 % w/w
Other components	75.00 % w/w
Total	100.00% w/w

### **Section 3. Hazards Identification**

**Emergency Overview Caution** .Keep out of the reach of children .Hazard to humans and domestic animals. Harmful if swallowed ,inhaled or absorbed through the skin .Causes eye irritation .Do not get in eyes ,on skin , Or on clothing .Do not breath spray mist .This pesticide is toxic to birds, fish and aquatic invertebrates.

**Eye** Causes eye irritation .May because redness, tearing .Do not get it eyes.

**Skin** Harmful if absorbed through the skin .Do not get on skin or clothing .May produce symptoms similar to those from ingestion .May cause redness, irritation, and swelling.

**Ingestion** Harmful if ingested .May cause shortness of breath, drowsiness, involuntary, shaking, muscle weakness, and convulsions.

**Inhalation** Harmful is inhaled. Avoid breathing spray mist .May produced Symptoms similar to those from ingestion. May cause shortness of breath, excitement, involuntary, shaking, irritability.

**Medical conditions** aggravated by exposure Inhalation of product may aggravate existing chronic respiratory problems Such as asthma emphysema or bronchitis.

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#### Section 4. First Aid Measures

**Skin Contact :** 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 persists get medical help.

**Eye Contact :** Irrigate the eyes with large amount water or normal saline occasionally lifting upper and lower lids until no evidence of chemical remains and obtain a medical help.

**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 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.

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#### Section 5. Fire Fighting Measures

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##### Extinguishing media

Suitable Water spray, Carbon dioxide (CO<sub>2</sub>), Foam, Sand

Unsuitable None known.

##### Hazchem Code 2Z

**Special hazards arising from the substance or mixture** In the event of fire the following may be released:, Hydrogen cyanide (hydrocyanic acid), Hydrogen chloride (HCl), Hydrogen fluoride, Carbon monoxide (CO), Nitrogen oxides (NO<sub>x</sub>)

**Advice for firefighters** Special protective equipment for firefighters In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus. **Further information** Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

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## Section 6. Accidental Release Measures

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**Personal Preparation** : Avoid contact with skin, eyes and clothing.

**Environmental Precautions** : Prevent contamination of soil, drains and surface water.

**Method of cleaning** : 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.

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## Section 7. Handling & Storage

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**Handling** :Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

**Hygiene measures** Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

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## Section 8. Exposure Control, Personal Protection

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**Breathing Protection** A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

**Eye protection** where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**Skin Protection** Where contact is likely, wear chemical resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical resistant footwear. To overhead exposure, wear chemical resistant headgear.

**Ingestion** Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

### Section 9. Physical and Chemical Properties

Appearance / state	: White to light yellow Powder
Colour	: White to light yellow
Odour	: Odourless
Boiling point	: NA
Vapour pressure	: NA
Ph	: 7-9
Flash Point	: NA
Density	: 2.09g/cm <sup>3</sup> at 25°C
Water Solubility	: Dispersible

### Section 10. Stability & Reactivity

Stability Stable under standard conditions.

Hazardous Polymerization Will not occur. Conditions to avoid Flame, heat, ignition sources and strong oxidizers

### Section 11. Toxicological Information

Acute Oral Toxicity- LD <sub>50</sub>	Rat: 10,000 mg/kg
Acute Dermal Toxicity- LD <sub>50</sub>	Rat: >20,000mg/kg
Acute Inhalation - LD <sub>50</sub>	Rat: >3.52mg/l Air (4h)
Eye irritation	No Irritating to eyes
Skin Irritation	No Slight Irritating to eyes
Skin Sensitization	Not a skin sensitizer

### Section 12. Ecological Information

Toxicity to Fishes	LC50 Oncorhynchus mykiss (rainbow trout)> 0.2 mg/l
Daphnia magna (Water flea)	EC50 0.0026 mg/l
Toxicity to Bees	Toxic to bees



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### Section 13. Disposal Consideration

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#### Waste treatment methods

Product In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

**Contaminated packaging** Not completely emptied packagings should be disposed of as hazardous waste.

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### Section 14. Transport Information

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#### IMDG Classification

Shipping name : Environmentally hazardous substance, solid, n.o.s.  
Class : 9  
Packing group : III  
UN number : 3077  
Marine pollutant : Yes

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### Section 15. Regulatory Information

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Labeling according to Insecticide Rules 1971 as amended.

(INDIA) Class III: Moderately toxic

Colour: bright blue

Danger! Keep out of the reach of children.

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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### Section 16. Other Information

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All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are resented in good faith and believed to be correct. This information

applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS. Accordingly, no guarantee or warrantee expressed or implied is made by United Chemicals, as to the results to be obtained based upon the user's use of the information, nor does United Chemicals, assume any liability arising out of user's use of the information.

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