



Hangzhou Tianlong Biotechnology Co., Ltd.

Add: Room 1906, Fengqi Times Tower, No.338, Fengqi East Road, Hangzhou, Zhejiang, China.

MATERIAL SAFETY DATA SHEET

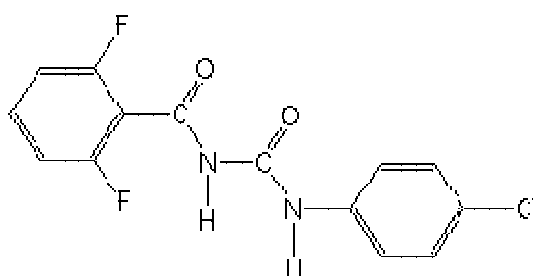
1. Chemical Product and company Identification

Product Name: Diflubenzuron

Molecular Formula: C₁₄H₉ClF₂N₂O₂

Molecular Weight: 310.7

Structural Formula:



Chemical Name:

1-(4-chlorophenyl)-3-(2,6-difluorobenzoyl)urea (IUPAC);

CAS No.: 35367-38-5

Supplier: HANZHOU TIANLONG BIOTECHNOLOGY CO., LTD

Address: Room 1906, Fengqi Times Tower, No.338 Fengqi East Road, Hangzhou, China, 310020

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2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Diflubenzuron	35367-38-5	95.0
Other ingredients		5.0

3. Hazards Identification

More important danger for the man: None

Dangers for the environment: Diflubenzuron is practically nontoxic to fish and aquatic invertebrates.

Physical-chemical dangers: none

4. First Aid Measures

Skin: Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.

Eyes: First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.

Inhalation: Move affected person to fresh air and keep at rest until recovered. If not breathing, give artificial respiration and get to a doctor.

Ingestion: Do not induce vomiting if the person is conscious. Give glass of water. Get to a doctor.

Notes to physician: No specific antidote if ingested. Treat symptomatically.

5. Fire-Fighting Measures

Extinguishing media

To be used: Powder, foam, and sand.

Don't use: Not applicable

Particular risk: None

Measures of personal protection: Safety glasses or goggles, rubber gloves, shoes plus socks, long-sleeved shirt, and long pants.

6. Accidental Release Measures

Personal cautions: Safety glasses or goggles, rubber gloves, shoes plus socks, long-sleeved shirt, and long pants.

Cleaning methods

EX: The empty container may be decontaminated by rinsing two or three times with water and detergent and scrubbing the sides.

Environmental cautions

EX: prevent the contamination of the floor and beds of water.

7. Handling And Storage

Handling: Do not apply to humans, their clothing, or bedding. Do not contaminate food or use on household tanks.

Storage: Store at normal temperatures, away from children, domestic animals, food and feed products, seed and fertilizer. Do not contaminate other stored products or the storage area by handling or storage of this product. Keep in a well-ventilated room.

8. Exposure Controls / Personal Protection

Personal protective equipment

Respiratory protection: Approved respirator

Protective gloves: Rubber gloves

Eye protection: Safety goggles or face shield.

Industrial hygiene: adequate ventilation.

9. Physical And Chemical Properties

Appearance: White to yellow crystalline powder

Water Solubility: 0.14 mg/L @ 20°C insoluble

Solubility in Other Solvents: DMSO s.; acetone s.s.; methanol s.
Melting Point: 210-230°C (technical with decomposition)
Vapor Pressure: <0.033 mPa @ 50°C
Partition Coefficient: Not Available
Adsorption Coefficient: 10,000

10. Stability And Reactivity

Conditions to avoid: flame, fire, and high temperature.
Products to avoid: incompatible with strongly alkaline products.
Thermal decomposition: <0.5% decomposition after 1 d storage at 100°C.
Hazardous decomposition products: nitride, chloride, fluoride and carbon dioxide.
Hazardous reaction: Not applicable

11. Toxicological Information

Contact with the skin: no irritant to skin
Contact with the eyes: mild irritant to eye.
Inhalation: not applicable;
Ingestion: not applicable;

Effects for chronic toxicity:

Reproductive: A three-generation study on rats at low doses showed no effect on mating performance. It does not appear that diflubenzuron has a significant effect on reproduction.

Carcinogenicity: Rats fed diets containing low to moderate amounts of diflubenzuron daily for 2 years had no increase in the number of new or abnormal tissue growths or lesions. Mice fed low doses for 80 weeks showed no significant tumor development. Other studies on both species at higher levels were also negative for malignant tumors. Diflubenzuron does not appear to be carcinogenic.

Teratogenicity: Diflubenzuron does not appear to be teratogenic. Newborn rats and rabbits did not develop any birth defects after their mothers were exposed to low levels of diflubenzuron (1 to 4 mg/kg/day) on days 6 to 18 of gestation.

Mutagenicity: Extensive testing on mammalian cells and on bacterial cells shows that diflubenzuron is not mutagenic.

Sensitisation: not a skin sensitiser (guinea pigs)

12. Ecological Information

Effects on birds: Diflubenzuron is practically nontoxic to wild birds. Bobwhite quail and mallard ducks both have an 8-day dietary LC50 of greater than 4640 ppm.

Effects on aquatic organisms: Diflubenzuron is practically nontoxic to fish and aquatic invertebrates. The LC50 values (96-hour) for diflubenzuron in various fish are: bluegill sunfish, 660 mg/L; rainbow trout, 240 mg/L; saltwater minnow, 255 mg/L; and channel catfish, 180 mg/L. In oyster larvae and juveniles EC50 values were 130 and 250 mg/L, respectively. Arthropods are most susceptible in the premolting stage. For instance, fiddler crabs, exposed for as little as 1 week at levels up to 0.05 mg/L exhibited limb regeneration effects. Fish tissue can show some traces of the metabolites when water is contaminated with diflubenzuron; however, tissue concentrations decline steadily with time in clean water.

Effects on other organisms: The compound is nontoxic to bees.

13. Disposal Considerations

Material which can not be used at the site should be disposed of in an approved waste disposal facility following all applicable Federal, State and Local regulations. If burned, stay out of smoke. Do not contaminate water supplies by disposal of wastes or containers.

14. Transport Information

Transport: 6.1

Pack group: III

UN No.: 2767

15. Regulatory Information

Safe phrase: Keep locked up and out of reach children.

Keep away from food, drink and animal feeding stuffs.

Do not breathe vapour/spray.

Avoid contact with skin and eyes.

Wear suitable protective clothing, gloves and eye/face protection.

Avoid release to the environment.

16. Other Information

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 presented 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 produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.