

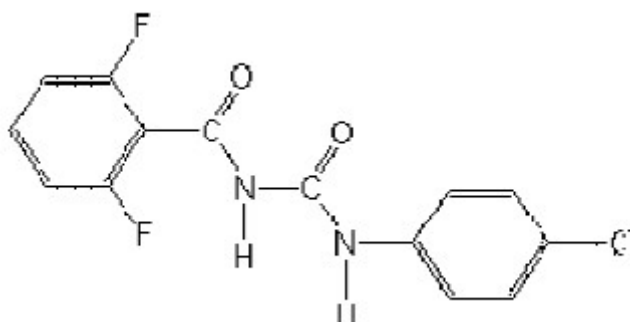
Material Safety Data Sheet

Diflubenzuron

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical product name: Diflubenzuron

Common chemical name: 1-(4-chlorophenyl)-3-(2,6-difluorobenzoyl)urea (IUPAC)



Company information: Choice Chemicals Ltd.
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SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

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

SECTION 3 - HAZARDS IDENTIFICATION

CHOICE CHEMICALS LTD.

Add: Centre of City, No.249 WUYI Road, Furong District, Changsha, Hunan Province, P.R.China
Tel: 0086 731 89856736 Fax: 0086 731 89878447 Website: www.choice-chem.com

More important danger for the man: None

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

Physical-chemical dangers: none

SECTION 4 - HAZARDS IDENTIFICATION

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.

SECTION 5 - FIRE FIGHTING MEASURES

Extinguishing media

To be used: Powder, foam, and sand.

Don't use: Not applicable

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

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal caution: 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.

SECTION 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.

SECTION 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.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White to yellow crystalline powder

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

Vapor Pressure: <0.033 mPa @ 50°C

Partition Coefficient: Not Available

Adsorption Coefficient: 10,000

SECTION 10 - STABILITY AND REACTIVITY

Conditions to avoid: flame, fire, and high temperature.

Products to avoid: incompatible with strongly alkaline products.

Thermal decomposition: <50% decomposition after 1 d storage at 100°C

Hazardous decomposition products: nitride, chloride, fluoride and carbon dioxide.

Hazardous reaction: Not applicable.

SECTION 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 diflufenican 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)

SECTION 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; 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.

SECTION 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.

SECTION 14 - TRANSPORT INFORMATION

Transport: 6.1

Pack group: III

UN No.: 2767

SECTION 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.

SECTION 16 - OTHER INFORMATION

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