



**Hangzhou Tianlong Biotechnology Co., Ltd.**

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

## MATERIAL SAFETY DATA SHEET

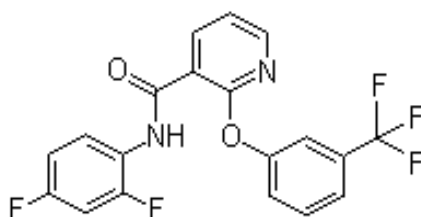
### 1. Chemical Product and company Identification

Product Name: Diflufenican

Molecular Formula: C<sub>19</sub>H<sub>11</sub>F<sub>5</sub>N<sub>2</sub>O<sub>2</sub>

Molecular Weight: 394.30

Structural Formula:



Chemical Name: N-(2,4-difluorophenyl)-2-(3-(trifluoromethyl)phenoxy)-3-pyridinecarboxamide

CAS No.: 83164-33-4

Supplier: HANZHOU TIANLONG BIOTECHNOLOGY CO., LTD

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

Tel: 0086-571-87214516

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### 2. Composition / Information on Ingredients

Composition	CAS No.	Content %
Diflufenican	83164-33-4	98.0
Other ingredients		2.0

### 3. Hazards Identification

Major Health Hazards: No major health hazards are known.

### 4. First Aid Measures

Swallowed: Wash out mouth with water. Do not induce vomiting. Keep patient at rest and seek medical advice as above. Do not attempt to give anything by mouth to a semi-conscious or unconscious person.

Eye: Rinse immediately with clean water for at least 15 minutes and obtain medical aid.

Skin: Carefully remove contaminated clothing. Wash affected areas with soap and water. Seek medical aid if at all worried.

Inhaled: Remove victim to fresh air and keep at rest. Obtain medical advice if at all worried.

#### **5. Fire-Fighting Measures**

Extinguishing Media: Water, foam, dry agent, carbon dioxide

Special Procedures:

Full protective gear, including self-contained breathing apparatus must be worn. Do not release contaminated water into the environment. Keep intact containers cool by spraying with water.

Reactivity Hazards: Stable under normal conditions of use. Avoid extreme heat and fire.

Oxides of carbon and nitrogen, and compounds of fluorine including hydrofluoric acid may be formed in a fire.

#### **6. Accidental Release Measures**

Spillage or Leak Procedures:

Avoid contact with spilled material or contaminated surfaces. During the clean up operation it is recommended that protective clothing and equipment be worn.

Contain spill and absorb with earth, sand, clay or other absorbent material and store in properly labelled, sealed drums for safe disposal. Do not burn empty containers or product. Deal with all spillages immediately. If contamination of drains, streams, watercourses etc. is unavoidable, warn the local water authority. Neutralising chemicals are not needed.

#### **7. Handling and Storage**

Keep out of reach of children. Avoid contact with the eyes and skin.

Store in the closed original container in a dry, cool, well-ventilated area, out of direct sunlight. Store in locked room or place away from children, animals, food, animal feed, seed and fertilizers. Protect from frost.

#### **8. Exposure Controls/Personal Protection**

Engineering Controls: Control process conditions to avoid contact. Use only in a well ventilated area.

Personal Protection: This product has a low toxicity, but if exposure to a large amount is likely, the following protection is recommended:

Eyes: Wear glasses or goggles.

Clothing: Wear long-sleeved overalls.

Gloves: Wear elbow length PVC gloves.

Respiratory: Not normally required. Wear an organic cartridge respirator if inhalation of spray is possible.

Other: Always wash hands after use.

Flammability: Non flammable.

## 9. Physical and Chemical Properties

Form: Crystals

Color: Colorless

Odor: Odorless.

Melting Point: 162°C

Vapour Pressure: 0.0707mPa@30°C

Specific Gravity: 1.175 at 20°C

Flashpoint: Non flammable

Flammability Limits: Not determined

Solubility in Water: 0.05mg/L

PH: 8.2

## 10. Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: This product should be kept in a cool place, preferably below 30°C.

Incompatibilities: No particular incompatibilities.

## 11. Toxicological Information

Oral LD<sub>50</sub> (mg/kg) > 2,000 Species Rat Dermal:

LD<sub>50</sub> (mg/kg) > 2,000 Species: Rat Inhalation:

LC<sub>50</sub> (mg/L) > 2.34 (4 h) Species: Rat Eye

irritation: Non irritant Species: Rabbit

Skin irritation: Non irritant Species: Rabbit

Sensitisation: Not a sensitiser Species: Guinea pig

## 12. Ecological Information

Harmful to aquatic life. Non-toxic to bees and earthworms.

Fish toxicity: LC<sub>50</sub> (96 h) for rainbow trout 75 mg/L; for carp 105 mg/L.

Bird toxicity: Acute oral LD<sub>50</sub> for quail > 2,150 mg/kg; for mallard ducks > 4,000 mg/kg. Do not contaminate streams, rivers or waterways with the chemical or used containers.

## 13. Disposal Considerations

Waste Disposal Methods:

Triple (or preferably) pressure rinse containers before disposal. Add

rinsings to the spray tank. Do not dispose of undiluted chemicals onsite. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Dispose of waste product via a licensed disposal contractor to an approved landfill.

#### **14. Transport Information**

Not applicable

#### **15. Regulatory Information**

Risk phrases:

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

R61: Avoid release to the environment. Refer to special instructions / safety data sheets.

#### **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.