



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

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

## MATERIAL SAFETY DATA SHEET

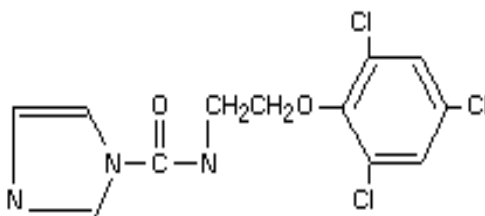
### 1. Chemical Product and company Identification

Product Name: Prochloraz

Molecular Formula: C<sub>15</sub> H<sub>16</sub> Cl<sub>3</sub> N<sub>3</sub> O<sub>2</sub>

Molecular Weight: 456.5

Structural Formula:



Chemical Name: 1-(N-propyl-N-(2-(2,4,6-trichlorophenoxy)ethyl))  
carbamoylimidazole

CAS No.: 67747-09-5

Supplier: HANZHOU TIANLONG BIOTECHNOLOGY CO., LTD

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

Tel: 0086-571-87214516

Fax: 0086-571-87079476

### 2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Prochloraz	67747-09-5	96.0
Other ingredients		4.0

### 3. Hazards Identification

Harmful if swallowed, inhaled or absorbed through the skin.

May cause skin irritation. Avoid contact with skin.

May cause eye irritation. Avoid contact with eyes.

May cause organ damage from repeated oral exposure at high doses.

Very toxic to fish/aquatic organisms with long-lasting effects. Avoid contamination of any water supply with product or empty container.

Harmful to terrestrial vertebrates (birds).

### 4. First Aid Measures

Swallowed: Wash out mouth with water. Do not induce vomiting. Keep patient at rest and seek medical advice as above.

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

Skin contact: Carefully remove contaminated clothing. Wash affected areas

with soap and water. Seek medical aid if at all worried.

Inhaled: If inhaled, remove to fresh air and keep at rest. Obtain medical advice if at all worried.

First Aid Facilities: Provide washing facilities in the workplace.

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

Extinguishing Media: Water spray, foam, dry powder, carbon dioxide or sand.

Special Fire Fighting Procedures:

Fire fighters should wear full protective gear, including self-contained breathing apparatus. Toxic decomposition products may be produced in a fire. If it can be done safely, remove intact containers from the fire. Bund area to prevent contamination of water sources. Dispose of fire control water or other extinguishing agent and spillage later.

## **6. Accidental Release Measures**

Spillage or Leak Procedures:

Extinguish or remove any sources of ignition. Avoid contact with the spilled material or contaminated surfaces. When dealing with spills do not eat, drink or smoke and wear personal protective clothing and equipment as described in the personal protection section above.

Prevent spilled material from entering drains or watercourses. Sweep or preferably vacuum up spillage. Avoid creating dust. Collect and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

## **7. Handling and Storage**

Handling & Storage Precautions:

Keep out of reach of children. Product is poisonous if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. Do not breathe dust. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Store in the closed, original container in a cool, dry, well ventilated, secure area out of direct sunlight. Keep away from sources of ignition. Keep away from food, drink and animal feed.

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

Engineering Controls: Control process conditions to avoid contact. Use only in well-ventilated areas.

Personal Protection: Eyes: Wear safety goggles or face shield.

Clothing: Wear cotton overalls buttoned to the neck and wrist to avoid skin contact.

Gloves: Wear elbow-length PVC gloves.

Respiratory: Wear a mask or respirator if inhalation of dust or spray is possible.

Other: After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, goggles or face shield, respirator face piece and contaminated clothing.

## 9. Physical and Chemical Properties

Appearance: Light brown solid

Melting point: 46.5 – 49.3°C

Vapour pressure: 0.48Pa at 25°C

Density: 1.42 g/mL at 20°C

Flashpoint: Not readily combustible

Flammability Limits: None

Solubility: Hardly soluble in water, easily soluble in acetone, ethanol, benzene and other solvents

## 10. Stability and Reactivity

Stability: the sunlight degradation, in the normal storage conditions stability in strong acid, alkali, under stable conditions.

Reactivity Hazards: Stable. Avoid strong oxidising agents. May give off toxic fumes, such as carbon monoxide, nitrogen oxides, sulphur oxides and hydrochloric acid if burnt.

## 11. Toxicological Information

Acute toxicity:

Acute oral LD<sub>50</sub> 1600 mg/kg (rat)

Acute dermal LD<sub>50</sub> > 5000 mg/kg (rat)

Acute inhalation LC<sub>50</sub> > 420 mg/m<sup>2</sup> (rat)

No irritation to eyes and skin for rat.

Eye irritation Slight and reversible irritation Species: Rabbit

Skin irritation not irritating Species: Rabbit

Sensitisation not sensitising Species: Guinea pig

Subchronic toxicity feeding 90 days test:

Minimum dose: 6mg/(kg.day) (rat)

No effects dose: 6mg/(kg.day) (mice)

Not found the teratogenic, mutagenic and carcinogenic effects. Animal reproduction test showed no abnormalities.

Chronic toxicity:

No effects dose: 1.3mg/(kg.day) (rat)

No effects dose: 7.5mg/(kg.day) (mice)

No effects dose: 0.9mg/(kg.day) (dog)

## 12. Ecological Information

Fish toxicity: LC<sub>50</sub> (96 h) rainbow trout 1.5 mg/L, bluegill sunfish 2.2 mg/L

Bird toxicity: Acute oral LD<sub>50</sub> mallard duck > 1954 mg/kg, quail 662 mg/kg

Other: EC<sub>50</sub> (48 h) daphnia magna 4.3 mg/L

IC<sub>50</sub> (72 h) algae (*Selenastrum capricornutum*) 0.1 mg/L

Partition coefficient n-octanol/water:  $\log P_{o/w}$  4.38

Octave is readily adsorbed onto organic matter and is degraded by biological activity and by sunlight.

Prochloraz is immobile in soil, not readily degradable and not readily leached.

### **13. Disposal Considerations**

Waste Disposal Methods:

Single rinse bags before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. 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**

Class: 9

UN No.: 3077

Packing group III

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

Safety Phrases: Keep out of reach of children

Keep away from food, drink and animal feeding stuff

Do not breathe spray

When using do not eat, drink or smoke

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

In case of accident or if you feel unwell, seek medical advice immediately (Show the label where possible)

Use appropriate containment to avoid environmental contamination

#### **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.