



## MATERIAL SAFETY DATA SHEET

### Manufacturer/information service:

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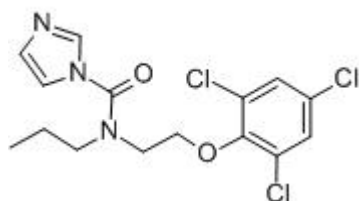
### 1. Chemical Product Identification

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: 376.7 g/mol

Structural Formula:



Chemical Name:

N-propyl-N-[2-(2,4,6-trichlorophenoxy)ethyl]imidazole-1-carboxamide

Form: Liquid

Color: Yellow brown

Odor: Odorless

CAS No.: 67747-09-5

### 2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Prochloraz	67747-09-5	95.0
Other ingredients	--	5.0

### 3. Hazards Identification



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**Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

Acute toxicity - Oral: Category 4 - (H302)

Serious eye damage/eye irritation: Category 2 - (H319)

Reproductive Toxicity: Category 2 - (H361d)

Acute aquatic toxicity: Category 1 - (H400)

Hazardous to the Aquatic: Category 1 - (H410)

Environment - Chronic Hazard

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

Xn; R22 - Xi; R36 - Repr. cat. 3; R63 - N; R50-53

**Label elements**

**Labelling according Regulation (EC) No 1272/2008**

**Hazard pictograms**



**Signal word**    Warning

**Hazard statement(s)**

H302 - Harmful if swallowed

H319 - Causes serious eye irritation

H361d - Suspected of damaging the unborn child

H410 - Very toxic to aquatic life with long lasting effects

**Precautionary statement(s)**

P102 - Keep out of reach of children

P201 - Obtain special instructions before use

P270 - Do not eat, drink or smoke when using this product

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing

P501 - Dispose of contents/container to an approved waste disposal plant

P280 - Wear protective gloves/protective clothing/eye protection/face protection\*\*\*

**Other hazards - none**



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#### 4. First Aid Measures

Inhalation: Remove victim to fresh air. Keep victim warm and at rest. If breathing is difficult: give oxygen. If not breathing: apply artificial respiration.

Get medical attention.

Ingestion: Induce vomiting. Never give anything by mouth to an unconscious person. Wash out mouth with water. Consult a doctor.

Skin contact: Remove contaminated clothing. Wash off with plenty of water and soap. Consult a doctor in the event of any complaints.

Eye contact: Wash off with plenty of water for at least 15 minutes. If pain persists, consult an eye specialist.

Notes to a physician: There is no specific antidote. Treat symptomatically and give supportive therapy. If ingested perform gastric lavage and administer activated charcoal.

#### 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

##### **Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

##### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

##### **Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

##### **Reference to other sections**



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For disposal see section 13.

## 7. Handling And Storage

**HANDLING:** Use only with adequate ventilation and appropriate protective equipment. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**STORAGE:** Keep out of reach of children and animals. Store in a cool, dry place and avoid excess heat. Store in original containers only. Carefully open containers. After partial use, fold and roll back bags, clamp and close tightly. Do not contaminate water, food or feed by storage and disposal.

## 8. Exposure Controls/Personal Protection

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Hygiene measures: Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day. Respiratory system: Wear appropriate respirator when ventilation is inadequate.

Skin and body: Lab coat.

Hands: Gloves

Eyes: Safety glasses.

## 9. Physical and Chemical Properties

Appearance: Yellow brown sticky liquid

Odor: odorless

Melting point: 48.3°C

Boiling Point: Decomposes before boiling

Solubility in water: 26.5mg/L(at 20°C)

Vapor Pressure: 0.16 mPa at 25°C

Relative density: 1.42 mg/L

Partition coefficient : Kow logP= 3.5 (pH7; 20 °C)

Acidity: ≤0.2%



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Flash point : Not expected to self ignite; Not highly flammable

## 10. Stability and Reactivity

Stability: Stable under normal dry conditions.

Conditions to avoid : Avoid exposure to excessive heat

Materials to avoid: Strong oxidizing agents Strong oxidizing agents

Hazardous reactions:

Hazardous decomposition products: Decomposed by excessive heat and acids. Thermal decomposition will generate oxides of carbon, oxides of nitrogen, and sulfur. Acid decomposition may evolve carbon disulfide.

Hazardous polymerization: will not occur.

## 11. Toxicological Information

Acute oral LD50 for rats is 1023 mg/kg.

Acute dermal LD50 for rats is >2100 mg/kg.

Acute inhalation toxicity LC50 (4 h) for rats is >2.16 mg/L.

Skin irritation: Slightly irritating to skin (rabbits).

Eye irritation: Non-irritating to eyes (rabbits).

Skin sensitization for guinea pig: Not a sensitizer.

## 12. Ecological And Ecotoxicological Information

Effect on birds: Acute oral LD50 for Bobwhite quail is 662 mg/kg.

Effect on fish: Acute LC50 (96 h) for Rainbow trout is 1.5 mg/l.

Effects on aquatic invertebrates: Acute EC50 (48 h) for Daphnia magna is 4.3mg/l.

Effects on algae: Acute 72 hour EC50 for Scenedemus subspicatus is >0.0055 mg/l.

Effects on bees: contact acute 48 hour LD50 is 141.3 µg/bee, oral acute 48 hour LD50 is >101 µg/bee.

Effects on earthworms: Acute 14 day LC50 is >500 mg/kg.

## 13. Disposal Considerations

Do not reuse containers for any purpose. Completely empty bag into application equipment.

Contact your local dealer/distributor for the location of the nearest collection site. Before taking container to the collection site: make the empty container unsuitable for further use. If



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there is no container collection site in your area, dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Do not contaminate water, food, or feed by storage or disposal.

## **14. Transport Information**

Not Applicable

## **15. Regulatory Information**

Not applicable

## **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.