

Imidacloprid -MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

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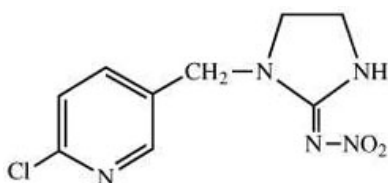
1. Manufacturer/information service:

Product Name: Imidacloprid

Molecular Formula: C₉H₁₀N₅O₂Cl

Molecular Weight: 255.66

Structural Formula:



Chemical Name:

1-(6-chloro-3-pyridin-3-ylmethyl)-N-nitroimidazolidin-2-ylideneamine(IUPAC).

Form: powder

Color: white

Odor: with slight special odor

CAS No.: 138261-41-3

2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Imidacloprid	138261-41-3	95.0
Other ingredients		5.0

3. Hazards Identification

Component	Symbol	R phrases
Imidacloprid	T	R23/25-48

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 affect 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: Water, carbon dioxide, dry chemical and foam.

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 the 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 powder with slight special odour.

Melting point: 144°C.

Density: 1.54 (23°C);.

Water solubility: 0.61g/L (20°C)

Other solubility: In dichloromethane 55, isopropanol 1.2, toluene 0.68, n-hexane <0.1 (all in mg/l, 20°C).

PH value: acidity: ≤0.5%;

Flash point: non-inflammable;

Ignition temperature: not applicable

10. Stability And Reactivity

Conditions to avoid: flame, fire and high temperature.

Products to avoid: incompatible with alkaline pesticides;

Thermal decomposition: N/A;

Hazardous decomposition products: nitride, chloride, carbon dioxide and so on.

Hazardous reaction: Not applicable

11. Toxicological Information

Contact with the skin: Not irritant to skin

Contact with the eyes: Not irritant to eye.

Signs and Symptoms of Poisoning: Although no account of human poisoning was found in the literature, signs and symptoms of poisoning would be expected to be similar to

nicotinic signs and symptoms, including fatigue, twitching, cramps, and muscle weakness including the muscles necessary for breathing.

Effects for chronic toxicity:

Reproductive: A three generation reproduction study in rats fed up to 700 ppm imidacloprid resulted in a NOEL of 100 ppm (equivalent to 8 mg/kg/day) based on decreased pup body weight observed at the 250 ppm dose level.

Carcinogenicity: Imidacloprid is considered to be of minimal carcinogenic risk, and is thus categorized by EPA as a "Group E" carcinogen (evidence of noncarcinogenicity for humans). There were no carcinogenic effects in a 2-year carcinogenicity study in rats fed up to 1,800 ppm imidacloprid.

Sensitisation: not a skin sensitiser (guinea pigs);

12. Ecological And Ecotoxicological Information

Aquatic organisms:

LC₅₀ (96 h) for rainbow trout 211, golden orfe 237 mg/l.

Bird: Acute oral LD₅₀ for bobwhite quail 152, Japanese quail 31mg/kg; Dietary LC₅₀ (5 d) for bobwhite quail 2225, and mallard ducks >5000 mg/kg.

Other Animals (Non-target species)

Bee: Imidacloprid is highly toxic to bees if used as a foliar application, especially during flowering, but is not considered a hazard to bees when used as a seed treatment.

Earth worms: LC₅₀ for Eisenia foetida 10.7mg/kg dry soil;

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.

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.