

## Material Safety Data Sheet

### SECTION 1: PRODUCT IDENTIFICATION

**Product name:** Imidacloprid 300 g/L + Lambda-cyhalothrin 100 g/L SC

**Molecular formula:**

Imidacloprid:  $C_9H_{10}ClN_5O_2$

Lambda-cyhalothrin:  $C_{23}H_{19}ClF_3NO_3$

**Molecular weight:**

Imidacloprid: 255.7

Lambda-cyhalothrin: 449.9

**Chemical name:**

Imidacloprid: 1-[(6-chloro-3-pyridinyl) methyl]-N-nitro-2-imidazolidinimine

Lambda-cyhalothrin: [1a(S\*), 3a (Z)]-( $\alpha$ -cyano (3-phenoxyphenyl) methyl 3-(2-chloro-3, 3, 3-trifluoro-1-propenyl)-2, 2-dimethylcyclopropanecarboxylate

**CAS No.:**


Imidacloprid: 138261-41-3

Lambda-cyhalothrin: 91465-08-6

### SECTION 2: COMPOSITION AND INGREDIENT INFORMATION

Imidacloprid

Lambda-cyhalothrin

For and on behalf of 300.0 g/L  
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 100.0 g/L  
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### SECTION 3: HEALTH HAZARD INFORMATION

**Emergency overview:** Keep out of reach of children. Caution! Harmful if swallowed. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Health hazards:

Ingestion: Harmful if swallowed.

Skin contact: Repeated skin exposure may cause irritation and allergic disorders.

Eye contact: May be slightly irritating to eyes.

Poison symptoms include apathy, labored breathing, incoordination, emaciation, and convulsions.

### SECTION 4: FIRST AID MEASURES

**Inhalation:** If inhaled, remove to fresh air and keep warm and at rest. Seek medical advice if at all worried.

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

**Eye contact:** Rinse eyes immediately with clean water for at least 15 minutes. Obtain medical advice.

**Ingestion:** Obtain immediate medical advice as above. Do not induce vomiting unless advised to do so by doctor or Poisons Information Centre. Do not give anything by mouth to an unconscious or semi conscious person.

**Medical attention:** There is no specific antidote. Symptomatic treatment

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## SECTION 5: FIRE AND EXPLOSION INFORMATION

**Extinguishing media:** Water, foam, extinguishing powder, carbon dioxide, sand.

**Fire-fighting instructions:** Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Otherwise, use water spray to cool them. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of fire control water or other extinguishing agent and spillage safely later. Do not release contaminated water into the environment.


**Protective equipment for firefighters:** Firefighters should wear full protective gear, including self-contained breathing apparatus.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Do not touch spilled material. Do not smoke, eat or drink during clean-up operation. Stop leak if possible without personal risk. Reduce vapor with water spray.

**Environmental precautions:** Prevent spill form spreading or entering waterways or drains.

**Method for cleaning up:** Take up with absorbent material such as sawdust, peat or binding agent for chemicals. Fill material along with any contaminated soil etc. into sealable containers. Clean affected area with an aqueous detergent and a small amount of water. On completion of clean-up remove and wash all protective clothing and equipment with detergent and water. Any heavily contaminated clothing should be placed in a plastic garbage bag and placed in a sealable drum.

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## 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:** The product is stable under normal conditions of warehouse storage at temperatures of -10 to 40°C. Protect against extremes of heat and cold. Keep container closed. Do not store in unlabelled containers. Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering controls:** Use local exhaust at all process locations to control employee exposure.

### Personal protective equipment (PPE):

**Eye protection:** Wear splash resistant safety goggles with a face-shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Skin protection:** Wear long sleeves and trousers to prevent skin contact.

**Ventilation:** Provide local exhaust ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

**User safety recommendations:** Clean water should be available for washing in case of eye or skin contamination. Educate and train employees in safe use of the product. Follow all label instructions.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Liquid

**Odor:** Characteristic odor

## SECTION 10: STABILITY AND REACTIVITY INFORMATION

**Chemical stability:** Stable under normal temperatures and conditions.

**Conditions to avoid:** Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.

**Hazardous decomposition product:** Proposed: HCl, CO, NO<sub>x</sub>.

**Incompatible materials:** Avoid acid, alkalis, and strong oxidizers.

**Hazardous polymerization:** Will not polymerize.

## SECTION 11: TOXICOLOGICAL INFORMATION

**For Imidacloprid tech:**

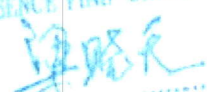
**Oral:** Acute oral LD<sub>50</sub> for male and female rats *c.* 450 mg/kg.

**Skin and eye:** Acute percutaneous LD<sub>50</sub> (24 h) for rats >5000 mg/kg. Non-irritating to eyes and skin (rabbits). Not a skin sensitiser.

**Inhalation:** LC<sub>50</sub> (4 h) for rats >5323 mg/m<sup>3</sup> dust, 69 mg/m<sup>3</sup> air (aerosol).

**For Lambda-cyhalothrin tech:**

**Oral:** Acute oral LD<sub>50</sub> for male rats 79, female rats 56 mg/kg.

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**Skin and eye:** Acute percutaneous LD<sub>50</sub> for rats 632–696 mg/kg. Mild eye irritant; non-irritant to skin (rabbits). Not a skin sensitiser (guinea pigs).

**Inhalation:** LC<sub>50</sub> (4 h) for rats 0.06 mg/l air (total particulate).

## SECTION 12: ECOLOGICAL INFORMATION

### For Imidacloprid tech:

**Birds:** Acute oral LD<sub>50</sub> for Japanese quail 31, bobwhite quail 152 mg/kg. Dietary LC<sub>50</sub> (5 d) for bobwhite quail 2225, mallard ducks >5000 mg/kg.

**Fish:** LC<sub>50</sub> (96 h) for golden orfe 237, rainbow trout 211 mg/l.

**Daphnia:** LC<sub>50</sub> (48 h) 85 mg/l.

**Algae:** E<sub>r</sub>C<sub>50</sub> (72 h) for *Pseudokirchneriella subcapitata* >100 mg/l. **Bees:** Harmful to honeybees by direct contact, but safe to bees when exposure is avoided (e.g. no spray application during flowering, seed treatment).

**Worms:** LC<sub>50</sub> for *Eisenia foetida* 10.7 mg/kg dry soil.

### For Lambda-cyhalothrin tech:

**Birds:** Acute oral LD<sub>50</sub> for mallard ducks >3950 mg/kg. Dietary LC<sub>50</sub> for quail >5300 mg/kg. No accumulation of residues in eggs or tissues.

**Fish:** LC<sub>50</sub> (96 h) for bluegill sunfish 0.21, rainbow trout 0.36 µg/l.

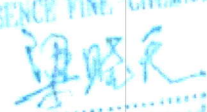
**Daphnia:** Intrinsic toxicity to aquatic organisms is greatly reduced by rapid loss from the water by adsorption and degradation: EC<sub>50</sub> (72 h) in water 0.26 µg/l, in water/sediment 31 µg/l.

**Algae:** E<sub>r</sub>C<sub>50</sub> (96 h) for *Selenastrum capricornutum* >1000 µg/l.

**Bees:** LD<sub>50</sub> (oral) 909 ng/bee; (contact) 38 ng/bee.

**Worms:** LC<sub>50</sub> for *Eisenia foetida* >1000 mg/kg soil.

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## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste disposal:** Material that cannot be reused or chemically reprocessed can be disposed of by controlled incineration with flue gas scrubbing or removal to a licensed chemical



destruction plant. Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**Packaging/container disposal:** Triple rinse container (or equivalent) and offer for recycling or reconditioning. The packaging can also be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Disposal of waste and packagings must always be in accordance with all applicable local regulations.

#### **SECTION 14: TRANSPORT INFORMATION**

**UN No.:** 3082

**Class:** 9

**Packing group:** III

#### **SECTION 15: REGULATORY INFORMATION**

Not available

#### **SECTION 16: OTHER INFORMATION**

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