

MATERIAL SAFETY DATA SHEET

Emergency Phone: CHEMTREC 800-424-9300

Effective Date: March 3, 2015

Replaces MSDS of March 26, 2013

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Willowood Imidacloprid 4ST

CHEMICAL NAME: Imidacloprid 1-(6-chloro-3-pyridylmethyl)-N-nitroimidazolidin-2-ylideneamine

CHEMICAL FAMILY: Neonicotinoid Insecticide

PRODUCT CODE: EPA Reg. No. 87290-26

COMPANY IDENTIFICATION:

Willowood, LLC

1600 Garden Valley Blvd., Suite 120

Roseburg, OR 97471

Tel: 877-679-9963

24/7 Health Emergencies: Call 800-858-7378 (National Pesticide Information Center)

2. COMPOSITION, INFORMATION OF INGREDIENTS:

Components

Name	CAS - No.	EINECS #	Average % by Weight
Imidacloprid	138261-41-3	200-835-2	40.7
NE			59.3

3. HAZARDS IDENTIFICATION SUMMARY:

NOTE: Please refer to Section 11 for detailed toxicological information.

EMERGENCY OVERVIEW: WARNING! Imidacloprid 4ST is an irritant and an environmentally hazardous substance. The product can cause moderate eye irritation and be harmful if swallowed or inhaled. There is no evidence that Imidacloprid is a human carcinogen. Imidacloprid can cause moderate temporary eye irritation and be harmful if swallowed or inhaled. This Insecticide is moderately toxic to aquatic organisms. Avoid breathing spray or aerosol.

PHYSICAL STATE: Suspension.

APPEARANCE: White/colorless suspension.

ROUTE OF EXPOSURE: Skin Contact, Skin Absorption, or Eye Contact.

IMMEDIATE EFFECTS:

Eye: Can cause moderate eye irritation. Do not get in the eyes.

Skin: May be harmful if absorbed through the skin. May cause moderate acute skin irritation. Unlikely to cause sensitization by skin contact. Avoid contact with skin and clothing.

Skin Irritation: Unlikely to cause significant or prolonged irritation or sensitization by skin contact.

Ingestion: Harmful if swallowed. Do not take internally.

Inhalation: Harmful if inhaled. Avoid breathing spray or aerosol.

CHRONIC OR DELAYED LONG-TERM: ACGIH, NTP, IARC, or OSHA do not list this product as a human carcinogen. The EPA has classified Imidacloprid as Group E, no evidence of carcinogenicity based on studies of rats and mice.

Medical Conditions Aggravated by Exposure: May cause upper respiratory irritation, or temporary irritation to the eyes.

4. FIRST AID MEASURES:

GENERAL: Have the product container or label with you when calling a poison control center or doctor or going for treatment.

INHALATION: Move the exposed person to fresh air, free from risk of further exposure. If the person is not breathing call 911, and give artificial respiration. Seek medical attention as soon as possible.

EYE CONTACT: Flush with clean, lukewarm water raising upper and lower eyelids at low pressure for 15 minutes. Remove contact lenses, if present, after the first five minutes and continue to rinse the eyes. Seek medical attention if no relief.

SKIN CONTACT: Remove any contaminated clothing. Rinse area with clean water for 15-20 minutes. Call poison control center or doctor for treatment advice.

INGESTION: Call a poison control center or doctor immediately for treatment advice. Have the affected person drink a glass of water if they are able to swallow. **DO NOT INDUCE VOMITING.** Lower the head if the exposed person is vomiting to minimize entry into throat and lungs.

NOTE to Physician: There is no specific antidote. Use appropriate supportive and symptomatic treatment as indicated by the patient's condition.

5. FIRE FIGHTING MEASURES:

FLASH POINT: N/A

AUTOIGNITION TEMPERATURE: N/A

FIRE AND EXPLOSION HAZARDS: Thermal decomposition of Imidacloprid can produce irritating and toxic gases, including hydrogen cyanide, hydrogen chloride, nitrogen oxides, and carbon oxides.

SUITABLE EXTINGUISHING MEDIA: Use water, dry chemicals, carbon dioxide, or foam.

FIRE FIGHTING INSTRUCTIONS: Wear encapsulated suit and NIOSH-approved self-contained breathing apparatus while fighting a fire where this product is burning. Keep out of smoke. Fight fire from an upwind position. Cool closed containers exposed to fire with water spray. Dike the area to prevent runoff and contamination of water sources. Equipment or materials involved in pesticide fires may become contaminated.

6. ACCIDENTAL RELEASE MEASURES:

PERSONAL PRECAUTIONS: Wear PPE per Section 8. Keep unauthorized people away. Isolate the hazard area. Avoid contact with spilled product or contaminated surfaces.

METHODS FOR CLEANING UP: Absorb spilled material with a nonflammable absorbent such as vermiculite. Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

ADDITIONAL ADVICE: Do not allow material to enter streams, sewers, or other waterways.

7. HANDLING AND STORAGE:

STORAGE TEMPERATURE: Keep containers tightly closed. Avoid temperatures above 38 °C (100 °F) or below 0°C (32 °F). Store in a cool, dry, well-ventilated area. Storage at constant temperature is recommended.

SPECIAL SENSITIVITY: Avoid contact with skin and eyes. Wear PPE per Section 8.

HANDLING AND STORAGE PRECAUTIONS: Avoid breathing the dust. Use normal safety procedures and good personal hygiene. Remove and wash PPE as soon as possible after handling product. Wash thoroughly after use, and before eating, drinking, chewing gum, or using tobacco.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION:

EYE PROTECTION: Use approved safety glasses, goggles, or face shield when there is potential for exposure to Imidacloprid spray or aerosol to cause irritation to the eyes.

SKIN PROTECTION: Wear chemically resistant gloves (e.g. nitrile, butyl, or neoprene.) Wear a long-sleeved shirt, long pants, shoes, and socks.

RESPIRATORY PROTECTION: Wear a NIOSH-approved respirator if the airborne conditions result in a dust or aerosol forming. A respirator is not normally required for routine handling of Imidacloprid, Technical.

OCCUPATIONAL EXPOSURE LIMITS: None.

ENGINEERING CONTROLS: Provide adequate ventilation when product is used. Eyewash and shower should be provided in mixing and loading areas.

9. PHYSICAL AND CHEMICAL PROPERTIES:

PHYSICAL FORM: Liquid suspension in water.

COLOR: White/colorless.

ODOR: Slight characteristic odor.

SOLUBILITY IN WATER: 0.51 g/L @ 20 °C.

DENSITY OF SUSPENSION (water=1): 1.19 g/cm³

FLASH POINT: N/A

pH IN WATER: Approximately 6.3

10. STABILITY AND REACTIVITY:

STABILITY: This product is a stable material under normal conditions of storage and handling. Avoid temperatures above 38 °C (100 °F.)

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBLES: Avoid contact with strong acids or strong oxidizing agents.

DECOMPOSITION PRODUCTS: Products of thermal decomposition and/or combustion can include hydrogen cyanide, hydrogen chloride, oxides of nitrogen, and oxides of carbon.

11. TOXICOLOGICAL INFORMATION:

Oral LD_{50 (rat)} = > 450 mg/kg
Dermal LD_{50 (rat)} = > 5,000 mg/kg
Inhalation LC_{50 (rat)} = > 5.0 mg/L (dust); = > 0.05 mg/L (aerosol)

The EPA has classified Imidacloprid carcinogenicity as group E, no evidence of human carcinogenicity based on studies with rats and mice. Ingestion of Imidacloprid at high levels of 20 milligrams per kilogram or more have produced modesty teratogenic effects in rats and rabbits. There is no evidence that Imidacloprid, Technical causes cancer in humans, although there is some evidence of a possible carcinogenic effect at very high doses in some animal studies.

The majority of tests on Imidacloprid have not shown it to be mutagenic.

Eye and skin irritation toxicity is very low, with effects clearing within 1-3 days of exposure

The Lowest Observable Adverse Effect Level (LOAEL) for human chronic exposure to Imidacloprid has been estimated to be 16.9 mg/kg/day based on rat studies.

There was no evidence that Imidacloprid causes skin sensitization based on guinea pig studies.

The significant routes of exposure are eyes, ingestion, skin contact, and inhalation.

12. ECOLOGICAL INFORMATION:

Prevent Imidacloprid from getting into any waterways.

The acute toxicity of Imidacloprid to fish is moderate or low. The LC₅₀ in a 96-hour rainbow trout study was 211 mg/L. The acute toxicity to algae is low.

Imidacloprid is practically non-toxic to most vertebrate groups, including mammals and most birds. It has been found to be moderately toxic to some bird species, including some upland game birds like quail, at high doses of 30-150 mg/kg.

Imidacloprid is toxic to honeybees if used in a foliar application.

13. DISPOSAL CONSIDERATIONS:

WASTE DISPOSAL METHOD: Imidacloprid 4ST is a liquid. Wear a NIOSH-approved self-contained breathing apparatus or respirator and other required PPE while disposing of Imidacloprid, Technical. Dispose of in accordance with label instructions and in accordance with all local, state, and federal regulations.

14. TRANSPORT INFORMATION:

US DOT (ground) SHIPPING NAME: Imidacloprid 4ST is not regulated for ground shipment per 49CFR Part 172 101(12)(iv).

IATA (air) SHIPPING NAME: Imidacloprid 4ST is regulated for air shipment. UN Number 3082, DG Class 9, Packing Group III.

IMO (water) SHIPPING NAME: Imidacloprid 4ST is regulated for water shipment. UN Number 3082, DG Class 9, Packing Group III. Imidacloprid 4ST is a Marine Pollutant.

15. REGULATORY INFORMATION:

OSHA STATUS: None.

TSCA STATUS: None

CERCLA REPORTABLE QUANTITY: None

CALIFORNIA PROPOSITION 65: None

RCRA STATUS: None.

SARA 302/311/312 HAZARD NOTIFICATION/REPORTING

IMMEDIATE N **FIRE** N **SUDDEN RELEASE OF PRESSURE** N

DELAYED N **REACTIVE** N

SARA TITLE III: None

SECTION 302 EXTREMELY HAZARDOUS: None.

SECTION 311/312 HAZARD CATEGORIES: None

SECTION 313 TOXIC CHEMICALS: None.

RIGHT TO KNOW: None.

16. OTHER INFORMATION:

National Fire Protection Association (NFPA)

Hazardous Materials Identification System (HMIS)

NFPA		HMIS
	0 Least	
1 Health	1 Slight	1 Health
1 Flammability	2 Moderate	1 Flammability
1 Instability	3 High	1 Reactivity
	4 Severe	H PPE

RISK PHRASES: R21, Harmful in contact with skin; R36, Irritating to eyes; and R51, Toxic to aquatic organisms.

SAFETY PHRASES: S2, Keep out of reach of children; S9, Keep container in a well-ventilated place; S25, Avoid contact with eye; S36, Wear suitable protective clothing; S37, Wear suitable gloves; S38, In case of insufficient ventilation, wear suitable respiratory equipment; S39, Wear eye/face protection; S61, Avoid release to the environment; and S62, If swallowed, do not induce vomiting: seek medical advice immediately and show the product container or label.

REASON FOR ISSUE: Minor corrections.

APPROVAL DATE: March 3, 2015

PREPARED BY: Jack Firkins

ABBREVIATIONS:

ACGIH American Conference of Governmental Industrial Hygienists

AICS	Australian Inventory of Chemical Substances
CAS#	Chemical Abstract Service Number
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
°C	Celsius temperature scale
CI	China
DSL	Canada Domestic Substances List
ECL	Korean Existing Chemicals List
EEC	European Economic Commission
ENCS	Japanese existing Chemical List
EINECS #	European Inventory of Existing Chemical Substance Number
EU	European Union
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
(Israel)	2001 proposed list of chemical substances to be regulated under Israel Hazardous Substances Law and Regulations List of 1993
IARC	International Agency for Research on Cancer
MAC	Netherlands
MAK	Germany
MITI	Ministry of International Trade and Industry
NA	Not Applicable
ND	Not Determined
NE	Not Established
NIOSH	National Institute of Occupational Safety and Health
NPIC	National Pesticide Information Center
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Act
PICCS	Philippines
PPE	Personal Protective Equipment
Prop	Proprietary
SARA	Superfund Amendments and Reauthorization Act
SWISS	Giftliste 1 and Inventory of Notified New Substances
TSCA	Toxic Substances Control Act
(Taiwan)	List of Toxic Chemical Substances regulated under Taiwan Toxic Chemical Substances Control Act of November 26, 1986
UK	United Kingdom
USA	United States of America

Disclaimer

This information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Willowood, LLC be liable for any claims, losses or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, how so ever arising, even if company has been advised of the possibility of such damages.