

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS:

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EMERGENCY TELEPHONE NUMBERS:

(800) 424-9300 (CHEMTREC, transportation and spills) or
(877) 424-7452 (Medical Emergency Information)

PRODUCT NAME : NITRO SHIELD™
CHEMICAL NAME : 1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinime
CHEMICAL FAMILY : Chloronicotinyl insecticide
PRODUCT CODE : EPA Reg. No. 1381-231

SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
Imidacloprid	48.70	138261-41-3	Not estab.	Not estab.

SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

HEALTH HAZARDS: Mildly irritating to the eyes and skin. May be harmful if swallowed.

PHYSICAL HAZARDS: Can decompose at high temperatures releasing toxic gases.

ENVIRONMENTAL HAZARDS: Extremely toxic to fish, water organisms and bees. Keep out of waterways.

SECTION 4 - FIRST AID MEASURES

IF SWALLOWED: Call physician or Poison Control Center immediately. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

IF IN EYES: Immediately flush eyes with water for at least 15 minutes. Get medical attention if irritation persists.

IF INHALED: Remove victim to fresh air. Get medical attention if symptoms develop.

IF ON SKIN: Remove contaminated clothing. Wash skin with plenty of soap and water. Get medical attention if irritation persists.

NOTE TO PHYSICIAN: No specific antidote available, treat symptomatically.

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

SECTION 5 - FIRE FIGHTING MEASURES

FLASHPOINT (method): > 100 C.

FLAMMABLE LIMITS (LFL-UFL): Unknown.

FIRE AND EXPLOSION HAZARD: Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

FIRE FIGHTING INSTRUCTIONS: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water run off.

FIRE FIGHTING EQUIPMENT: Self-contained breathing apparatus with full facepiece.

HAZARDOUS COMBUSTION PRODUCTS: Hydrogen cyanide, Hydrogen chloride, Carbon monoxide, Nitrogen oxides.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate

container for disposal.

LARGE SPILL: Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

This material should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

HANDLING: Use only in a well-ventilated area. Minimize dust generation and accumulation.

STORAGE: Keep container closed when not in use. Keep away from food, feed and drinking water. Store in a well ventilated dry place away from heat.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS (8 HOUR TWA): (Refer to Section 3)

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION - Safety goggles

CLOTHING - Long-sleeved shirt and long pants, Chemical-resistant footwear plus socks

GLOVES - Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC), viton

RESPIRATOR – Not required when handled under normal conditions. When handling in enclosed areas with inadequate ventilation, use a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C)

Discard clothing and other absorbent materials that have been heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: Off white viscous liquid

ODOR: No appreciable odor

BULK DENSITY: 1.24 g/ml

pH: 5.8

VAPOR PRESSURE: 1.5×10^{-9} mmHg @ 20C

WATER SOLUBILITY: Dispersable

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable, however may decompose if heated.

CONDITIONS TO AVOID: Avoid temperatures above 100°F (38°C) for prolonged period of time. Strong exothermal reaction can occur above 390°F (200°C)

INCOMPATIBILITY WITH OTHER MATERIALS: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, Oxides of nitrogen and carbon.

HAZARDOUS POLYMERIZATION: Product will not undergo polymerization.

SECTION 11 - TOXICOLOGICAL INFORMATION**ACUTE TOXICITY:**

Oral LD ₅₀ (rat)	- > 4,500 mg/Kg
Dermal LD ₅₀ (rat)	- > 2,000 mg/Kg
Inhalation LC ₅₀ (rat)	- > 5.0 mg/L
Eye Irritation (rabbit)	- Mild
Skin Irritation (rabbit)	- Slight
Sensitization (guinea pig)	- Non-sensitizer

CARCINOGEN STATUS:

OSHA -	Not listed.
NTP -	Not listed.
IARC -	Not listed.

MUTAGENIC DATA: Little or no evidence of mutagenic effects during *in vivo* or *in vitro* studies.

ADDITIONAL DATA: No reproductive or teratogenic (birth defect) effects at normal exposure levels.

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: This product is highly toxic to aquatic invertebrates. Keep out of water bodies. Extremely toxic to bees by direct exposure or residues on treated crop. Do not apply to or allow drift on blooming crops that bees may visit.

FISH TOXICITY: (Technical)

96 hour LC₅₀, Rainbow trout - 211 mg/L
96 hour LC₅₀, Bluegill - unknown

AVIAN TOXICITY: (Technical)

Oral LD₅₀, Bobwhite quail - 152 mg/Kg
Oral LD₅₀, Mallard duck - unknown

BEE TOXICITY:

Contact LD₅₀ – Highly toxic.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE: Pesticide wastes are toxic. Dispose of in accordance with applicable Federal, state and local laws and regulations.

CONTAINER: Completely empty container into processing equipment. Then dispose of empty container in sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

SECTION 14 - TRANSPORT INFORMATION

DOT SHIPPING DESCRIPTION:	Not regulated (all sizes)
DOT HAZARD CLASS:	N/A
UN NUMBER:	N/A
DOT PACKING GROUP:	N/A
DOT PRIMARY/SECONDARY LABEL:	N/A
DOT PRIMARY/SECONDARY PLACARD:	N/A
DOT EMERGENCY RESPONSE GUIDE #:	N/A

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY:	- No components listed
SARA TITLE III STATUS:	
311/312 Hazard Categories	- Immediate Health Hazard
313 Toxic Chemicals	- None

SECTION 16 - OTHER INFORMATION

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REVISED: