

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

IMIDACLOPRID 70% WG

SUPPLIER NAME:	Shandong Weifang Rainbow Chemical Co., Ltd.
SUPPLIER ADDRESS:	Binhai Economic Development Area, Weifang, Shandong 262737, China
SUPPLIER PHONE	86-531-88875230, 88875231
SUPPLIER FAX	86-531-88875232, 88875224
CHEMICAL NAME	(E)-1-(6-chloro-3-pyridylmethyl)-N-nitroimidazolidin-2-ylideneamine
CAS NUMBER	138261-41-3
MOLECULAR FORMULA	C ₉ H ₁₀ ClN ₅ O ₂
MOLECULAR WEIGHT	255.66
CHEMICAL FAMILY	Neonicotinoid
USE	Insecticide

2. COMPOSITION / INFORMATION ON INGREDIENTS

IMIDACLOPRID	70 %
OTHER INGREDIENTS	Up to 100%

3. HAZARDS IDENTIFICATION

This product is considered to be hazardous.

Harmful if swallowed.

May be toxic to aquatic invertebrates. Toxic to birds.

4. FIRST - AID MEASURES

INGESTION:	Do not induce vomiting. Obtain medical advice immediately and make the container, or label or this Data Sheet available. Never give anything by mouth to a semi-conscious or unconscious person. Treat respiratory difficulty with artificial respiration and oxygen. Give plenty of water to drink.
INHALATION:	Remove victim to fresh air. Keep the affected person warm. Seek medical attention if ill effect develops.
SKIN CONTACT:	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Seek medical attention if ill effect or irritation develops
EYE CONTACT:	Continue to rinse eye with clean water for 20-30 minutes, retracting eyelids often. Obtain medical attention.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:

Carbon dioxide, foam, sand, powder, water spray.

SPECIAL HAZARDS ARISING FROM THE CHEMICAL:

Thermal decomposition generates: carbon dioxide, carbon monoxide, hydrogen chloride, hydrogen cyanide, nitrogen oxides.

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SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS:

Wear self-contained breathing apparatus, rubber boots and thick rubber gloves.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Do not inhale fumes. Avoid contact with skin, eyes or clothes. Ventilate area of spill or leak, especially confined areas.

ENVIRONMENTAL PRECAUTIONS:

Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

Sweep or shovel spills into appropriate container for disposal. Dispose in a safe manner in accordance with local/national regulations.

7. HANDLING AND STORAGE

HANDLING:

Operator should not be alone during handling and application of product. Harmful if swallowed and irritant to the skin, eyes respiratory shield. Avoid contact with eyes and skin and inhalation of dust and fumes. Avoid exposure to spray. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the insecticide gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

STORAGE:

Keep container closed when not in use. Keep away from: direct sunlight Keep away from sources of ignition - No smoking. Storage temperature: $\leq 40^{\circ}\text{C}$.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

APPROPRIATE ENGINEERING CONTROLS:

It is essential to provide adequate ventilation. Ensure that control systems are properly designed and maintained. Only spark-resistant equipment should be used. Comply with occupational safety, environmental, fire and other applicable regulations.

PERSONAL PROTECTIVE EQUIPMENT:

- Respiratory protection: Approved respirator.
- Hand protection: Wear suitable gloves resistant to chemical penetration.
- Skin protection: Wear suitable protective clothing and chemical resistant boots
- Eye protection: Chemical goggles or face shield with safety glasses.

Industrial hygiene: Good ventilation of the workplace required.

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Wash hands and other exposed areas with mild soap and water

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before eat, drink or smoke and when leaving work. Wash clothing before re-using.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Off-white granule
ODOR:	Characteristic
EVAPORATION RATE:	Not Applicable
EXPLOSIVE PROPERTIES:	May cause dust explosion
VAPOR PRESSURE:	Not Applicable
VAPOR DENSITY:	Not Applicable
SOLUBILITY(IES) IN WATER:	Dispersible

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:

Stable under recommended storage and handling conditions.

CONDITIONS TO AVOID:

Heat, direct sunlight, open flame.

INCOMPATIBLE MATERIALS:

Strong oxidizing agents, Strong acids, bases.

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition generates: carbon monoxide, hydrogen chloride, hydrogen cyanide, nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Acute oral LD50:	981mg/kg in the rat
Acute dermal LD50:	>5000 mg/kg in the rat
Acute inhalation LC50:	>5.3 mg/l/4h
Dermal irritation (rabbit) :	No skin irritant
Eyes irritation (rabbit) :	No eye irritant
Sensitisation /guinea pig:	Skin sensitizing effects were not observed in animal studies

12. ECOLOGICAL INFORMATION

Birds:	Oral LD50: Japanese quail: 31 mg/kg; Bobwhite quail: 152 mg/kg Risk of dietary exposure to birds via treated seeds was minimal.
Fish:	LC50 (96 hours): Golden orfe: 237 mg/L; Rainbow trout: 211 mg/L
Daphnia:	LC50 (48 hours): Daphnia magna 85 mg/L
Bees:	Highly toxic to bees, but not considered a hazard when used as a seed treatment.
Algae:	ErC ₅₀ (72 hours): Pseudokirchneriella subcapitata > 100 mg/L
Earthworms:	LC50: Eisenia foetida 10.7 mg/kg dry soil

13. DISPOSAL CONSIDERATIONS

SAFE HANDLING OF WASTE RESIDUES AND DISPOSAL METHODS:

PRODUCT:

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Do not contaminate water, food, or feed by disposal. Pesticide wastes are acutely hazardous. Waste, including spill or rinsates, and leftover pesticide that cannot be used according to label instructions. Any disposed of according to applicable federal, state or local procedures. Any disposal practice must be in compliance with all Federal, State/provincial and local laws and regulations.

CONTAMINATED PACKAGING:

Do not reuse empty container. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and local regulations. Do not flush to surface water or sanitary sewer systems. Do not reuse original container. Packaging that cannot be cleaned should be disposed of as product waste. Uncontrolled disposal or recycling of this packaging is not permitted and can be dangerous.

14. TRANSPORT INFORMATION

UN NUMBER: 3077

UN PROPER SHIPPING NAME: Environmentally hazardous substance, solid, N.O.S. (imidacloprid 700 g/kg)

MARITIME POLLUTANT: Yes

TRANSPORT HAZARD CLASS(ES): 9

PACKING GROUP: III

15. REGULATORY INFORMATION

The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given.

Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and /or local laws.

16. OTHER INFORMATION

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.