



Maxunitech North America, Inc.

SAFETY DATA SHEET

1. IDENTIFICATION

Product identifier

Product Name Maxunitech Flumioxazin 51% WG
EPA Registration Number 95009-10

Other means of identification

Synonyms
Flumioxazin

N-(7-fluoro-3,4-dihydro-3-oxo-4-prop-2-ynyl-2*H*-1,4-benzoxazin-6-yl)cyclohex-1-ene-1,2-dicarboxamide (IUPAC name)

Recommended use of the chemical and restrictions on use

Recommended Use Herbicide
Uses advised against Use according to label

Supplier's details

Maxunitech North America, Inc.
Add: 11601 Shadow Creek Pkwy, Suite 111-573, Pearland, Texas 77584, USA

Emergency phone number

National Pesticide Information Center: 1-800-858-7378 (Monday through Friday, 8:00 AM to 12 PM Pacific Standard Time)
Poison Control Center: 1-800-222-1222 (In the event of a medical emergency)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Reproductive toxicity: Category 2

Hazardous to the Aquatic Environment – Short-Term (Acute): Category 1

Hazardous to the Aquatic Environment – Long-Term (Chronic): Category 1

GHS Label elements, including precautionary statements



WARNING

Hazard Statements

H361 - Suspected of damaging fertility or the unborn child

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects



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Precautionary Statements – Prevention

P203 - Obtain, read and follow all safety instructions before use.

P273 – Avoid release to the environment not in accordance with the product label.

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Precautionary Statements – Response

P318 – IF exposed or concerned, get medical advice.

P391 – Collect spillage.

Precautionary Statements - Storage

P405 - Store locked up.

Precautionary Statements - Disposal

P501 - Dispose of contents/container according to label directions.

Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

Other Information

Very toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Chemical Name	CAS No.	%
Flumioxazin	103361-09-7	51

4. FIRST AID MEASURES

Description of necessary first aid measures

General advice: Have the product container, label or Safety Data Sheet with you when calling a poison control center or doctor or going for treatment.

Inhalation: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

Eye contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor. DO NOT give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media



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Suitable: Use extinguishing media suitable for surrounding materials. Dry chemical, carbon dioxide, foam, water fog.

Special hazards arising from

Unusual Fire and Explosion Hazards: May form combustible dust concentrations in air. If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later.

Hazardous Decomposition Materials (Under Fire Conditions): Normal combustion forms carbon dioxide, water vapor and may produce: nitrogen and fluorine compounds. Incomplete combustion can produce carbon monoxide.

Advice for fire-fighters

Special protective equipment for fire-fighters: Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full firefighting turnout gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

NFPA Ratings

Health - 1 / Flammability - 1 / Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Environmental precautions

Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.

Methods and materials for containment and cleaning up

Methods for Containment: Dike to prevent runoff. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up and Disposal: Clean up spill immediately. Vacuum or sweep up material and place in a chemical waste container. Or absorb spill with inert material. Wash area with soap and water. Pick up wash liquid with additional absorbent and place in a chemical waste container. Dispose of waste as indicated in Section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

Conditions for safe storage, including any incompatibilities

Storage: Store product in original container only, away from other pesticides, fertilizer, food, or feed. Do not use or store around the home. Avoid storage below 32F. Product that has been frozen should be thawed and recirculated prior to its use. Store in a cool, dry place and avoid excess heat.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Appropriate engineering controls

Engineering controls: Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Individual protection measures, such as personal protective equipment

General Protection: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

Eye/Face Protection: To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

Skin protection: To avoid contact with skin, wear long pants, long-sleeved shirt, socks and shoes. An emergency shower or water supply should be readily accessible to the work area.

Respiratory protection: Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Solid with granular appearance
Physical State	Solid
Color	Beige
Odor	Odorless
Odor threshold	No information available
pH	5.28 at 20±1 °C
Bulk density	0.571 g/mL (pour density) 0.592 g/mL (tap density) (25±2 °C)
Melting point/freezing point	No information available
Boiling Point/Range	Not applicable
Flash point	No information available
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available



Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	Not applicable
Viscosity, dynamic	Not applicable
Explosive properties	No information available
Oxidizing properties	No information available
Molecular weight	No information available

10. STABILITY AND REACTIVITY

Reactivity

No information available.

Chemical stability

Stable under normal handling and storage conditions.

Possibility of hazardous reactions

Will not occur.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous decomposition products

Thermal decomposition or combustion may product harmfulirritant gas or fume such as nitrogen oxides, carbon oxides, hydrogenfluoride or organic compounds.

11. TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure

The following information is from the formulated product:

Dermal, inhalation

The acute toxicity information of the formulated product:

LD₅₀ Oral > 5,000 mg/kg (rat)

LD₅₀ Dermal > 5,000 mg/kg (rat)

LC₅₀ Inhalation > 2.61 mg/l 4 h (rat, no mortality during the test)

Serious eye damage/eye irritation: Non-irritant to eye (rabbit).

Skin corrosion/irritation: Non-irritant to dermal (rabbit).

Sensitization: Non-Sensitizer (Guinea Pigs).

Delayed and immediate effects and also chronic effects from short and long term exposure.

The following information is based on active ingredient (Flumioxazin):

Subchronic toxicity:



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No evidence of subchronic toxicity in animal studies.

NOEL: (90 d) for rats 30 ppm (2.2 mg/kg b.w. daily).

Chronic toxicity:

No evidence of chronic toxicity in animal studies.

NOEL: (2 y) for rats 50 ppm (1.8 mg/kg b.w. daily).

Mutagenicity:

Non-mutagenic in the Ames test, in vivo chromosomal aberration, and in vivo/vitro UDS.

Carcinogenicity:

IARC Group 1 or 2: Not listed.

NTP Carcinogen List: Not listed

OSHA - Select Carcinogens: Not listed

Neurological effects:

Known not to cause the neurological effects.

Reproductive toxicity:

Reproductive toxicity was observed in F1 males, P1 females and F1 females at 300 ppm Flumioxazin Technical, the highest dose tested and a dose that also produced signs of systemic toxicity. Toxicity was also observed in the F1 and F2 offspring at doses of 200 ppm and greater.

Developmental toxicity:

Flumioxazin Technical produces developmental toxicity in rats in the absence of maternal toxicity at doses of 30 mg/kg/day by the oral route and 300 mg/kg/day by the dermal route. The developmental effects noted consisted primarily of decreased number of live fetuses and fetal weights, cardiovascular abnormalities, wavy ribs and decreased number of ossified sacrococcygeal vertebral bodies. The developmental NOEL in the rat oral and dermal developmental toxicity studies were 10 and 100 mg/kg/day, respectively. The response in rabbits was very different from that in rats. No developmental toxicity was noted in rabbits at doses up to 3000 mg/kg/day, a dose well above the maternal NOEL of 1000 mg/kg/day. Mechanistic studies indicate that the effects seen in the rat are highly unlikely to occur in the human and that flumioxazin would not be a developmental toxicant in the human.

STOT - single exposure:

No information available.

STOT - repeated exposure:

No information available.

Aspiration hazard:

No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The following information is based on active ingredient (Flumioxazin):



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Toxicity to fish	Rainbow trout LC ₅₀ : 2.3 mg/l Exposure time: 96 h
	Bluegill sunfish LC ₅₀ : >21 mg/l Exposure time: 96 h
	Sheepshead minnows LC ₅₀ : >4.7 mg/l Exposure time: 96 h
Toxicity to aquatic plants	Algae (<i>Selenastrum capricornutum</i>) EC ₅₀ : 0.0011 mg/l Exposure time: 72h
Acute toxicity to aquatic invertebrates	Daphnia magna EC ₅₀ : 5.9 mg/l Exposure time: 48 h
Fate	Degrades rapidly in soil and water. Leaching potential is low.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide is a violation of law.

Contaminated packaging and Disposal: Nonrefillable container. Do not reuse or refill this container. See container labeling for complete disposal instructions.

14. TRANSPORT INFORMATION

DOT

Not regulated for domestic ground transport by us DOT.

TDG

Classification below is only applicable when shipped by vessel and is not applicable when shipped by road or rail only.

UN number: UN 3077

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Flumioxazin)

Hazard Class: 9

Packaging group: III

Marine pollutant: Flumioxazin. Description: UN3077, Environmentally hazardous substance, solid, n.o.s. (Flumioxazin), 9, PG III, Marine pollutant

ICAO/IATA

UN/ID number: UN 3077



Maxunitech North America, Inc.

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Flumioxazin)

Hazard Class: 9

Packaging group: III

Description: UN 3077, Environmentally hazardous substance, solid, n.o.s. (Flumioxazin), 9, PG III, Marine pollutant

IMDG/IMO

UN/ID number: UN 3077

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Flumioxazin)

Hazard Class: 9

Packaging group: III

Marine pollutant: Flumioxazin. Description: UN 3077, Environmentally hazardous substance, solid, n.o.s. (Flumioxazin), 9, PG III, Marine pollutant

15. REGULATORY INFORMATION

FIFRA

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

CAUTION

Keep out of reach of children.

ENVIRONMENTAL HAZARDS

This product is toxic to non-target plants and aquatic invertebrates. DO NOT apply directly to water, to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift or runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas. DO NOT apply where runoff is likely to occur. DO NOT apply when weather conditions favor drift from treated areas. DO NOT contaminate water when disposing of equipment washwaters or rinsate.

This pesticide is toxic to plants and must be used strictly in accordance with the drift and runoff precautions on this label in order to minimize off-site exposures.

Under some conditions this product may have a potential to runoff to surface water or adjacent land. Where possible, use methods which reduce soil erosion, including no till, limited till and contour plowing; these methods also reduce pesticide runoff.

Use of vegetation filter strips along rivers, creeks, streams, wetlands or on the downhill side of fields where runoff could occur will minimize water runoff.

NON-TARGET ORGANISM ADVISORY: This product is toxic to plants and may adversely impact the forage and habitat of nontarget organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize off-target movement.

ARA Title III-Section 302 Extremely Hazardous Substances

Not listed

SARA Title III -Section 311/312 Hazard Categories



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Immediate health (acute), Delayed health (chronic)

SARA Title III -Section 313 Reportable Ingredients

Not listed

CERCLA Reportable Quantity (RQ)

Not listed

16. OTHER INFORMATION

SDS Creation Date: 06-July-2023

Version Number: #1

The 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 the company 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, howsoever arising, even if the company has been advised of the possibility of such damages.