



SAFETY DATA SHEET

SDS ID: 74530-70

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	DIFLUMAX 2L
Product use / type:	Insect Growth Regulator
Restrictions on use:	Not for homeowner or residential use; See product label.
EPA Registration No.:	74530-70
Chemical name / active ingredient(s):	N-[[[(4-chlorophenyl)amino]carbonyl]-2,6 difluorobenzamide (Diflubenzuron)
Manufacturer / Registrant:	Helm Agro US, Inc. 401 E. Jackson St., Suite 1400 Tampa, FL 33602
Manufacturer's Telephone:	813-621-8846
Email:	info@helmagro.com
Chemical Emergencies:	1-800-424-9300 (Chemtrec)

2. HAZARDS IDENTIFICATION

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

Classification

Acute Toxicity – Inhalation	Category 4
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EMERGENCY OVERVIEW

Signal Word: WARNING

Pictogram:



Appearance: Opaque, white

Physical state: Liquid

Odor: Characteristic

Hazard Statements:

- Harmful if inhaled

Precautionary Statements:

- Avoid breathing dusts / mists / fumes.
- Use only outdoors or in a well-ventilated area.
- Wash hands and face thoroughly after handling.

- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- Call a poison center / doctor if you feel unwell.

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Other Information / Potential Hazards:

May cause eye irritation.

Toxic to aquatic organisms with long lasting effects.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight % **
Diflubenzuron N-[[[4-chlorophenyl]amino]carbonyl]-2,6 difluorobenzamide	35367-38-5	22.0
Other ingredients	-	78.0

** Values are not product specifications.

4. FIRST AID MEASURES

If inhaled:	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or get medical help, then give artificial respiration, preferably with the aid of a pocket mask equipped with a one-way valve.• Call a poison control center or doctor for further treatment advice.
If in Eyes:	<ul style="list-style-type: none">• Hold eye open and rinse gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin or clothing:	<ul style="list-style-type: none">• Remove contaminated clothing and shoes.• Rinse skin with plenty of water for 15 or 20 minutes. If irritation develops, call a poison control center or doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Rinse mouth with water.• 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.
First Aid Note:	<ul style="list-style-type: none">• Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIRE-FIGHTING MEASURES

Flammable properties:	Not flammable.
Extinguishing media:	Water fog, dry chemical, foam or CO ₂
Unsuitable extinguishing media:	High pressure water stream.
Firefighting measures:	Use extinguishing media appropriate for surrounding fire. Prevent contaminated firefighting waters and spillage from entering sewers, drains and waterways.

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Protective equipment and precautions for firefighters: Wear full protective firefighting gear including self-contained breathing apparatus pressure demand (MSHA/NIOSH approved or equivalent).

Hazardous decomposition products: Oxides of carbon and nitrogen. May release irritating and toxic vapors due to thermal decomposition.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Isolate and post spill area. Wear protective gloves / clothing and eye protection. Avoid contact with eyes, skin and clothing. Ensure adequate ventilation.

Environmental precautions: Prevent further spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.

Methods for containment: Contain spill with inert material (e.g. sand, silical gel, binder).

Methods for cleanup: Pick up by shovel or vacuum and transfer to properly labeled containers for disposal. Dispose of rinse water as waste water.

7. HANDLING AND STORAGE

Precautions for safe handling: Use only outdoors or with adequate ventilation. Avoid breathing vapors or mists and contact with eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product.

Precautions for safe storage: Store and handle in accordance with good industrial hygiene practices. Keep container tightly closed. Store in a cool dry well-ventilated place. Store product in original container only.

Incompatible storage situations: Separate pesticides during storage to prevent cross-contamination of other pesticides, fertilizers, food, and feed.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

The following recommendations for exposure controls and personal protection are intended for the manufacture, formulation and packaging of this material. Commercial applicators and on-farm applications should refer to the product label for personal protection equipment.

Exposure Guidelines:	This product does not contain hazardous substances with occupational exposure limits established by the region specific regulatory bodies.
Engineering controls:	Emergency eye wash/drench in work area. Emergency shower or suitable water supply near the work area.

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	Ensure adequate ventilation, especially in confined areas. Use mechanical ventilation when necessary.
Personal protective equipment	
Eye / face protection:	Safety glasses with side-shields. If splashing is likely to occur, wear chemical tight goggles.
Body / skin protection:	Long sleeved shirt, long pants, shoes plus socks. Wash work clothing before reuse. Contaminated clothing should be thoroughly washed before reuse.
Hand protection:	Wear gloves / hand protection.
Respiratory protection:	If handling without sufficient ventilation, wear a dust / mist filtering respirator with organic cartridge(s) or pesticide rated filters.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid, viscous
Appearance:	Opaque, white to off-white
Odor:	Characteristic
pH:	7.1 at 20°C in 1% w/v aqueous solution
Boiling point:	No information available
Flash point:	Not flammable
Relative density:	1.15 g/ml at 20°C
Water solubility:	Miscible
Viscosity:	No information available
Partition Coefficient / log Pow:	Diflubenzuron: 3.89

10. STABILITY AND REACTIVITY

Reactivity / chemical stability:	Stable under normal temperature and conditions.
Conditions / Materials to avoid:	Extreme heat, sparks and fire. Strong oxidizing agents, acids and bases.
Hazardous decomposition products:	Under fire conditions: oxides of carbon, nitrogen and sulfur.
Hazardous reactions:	Not expected under normal conditions of handling and use. Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Information on product toxicological effects:

Acute oral LD50:	Rat LD ₅₀ : >5000 mg/kg
Acute dermal LD50:	Rat LD ₅₀ : >2000 mg/kg
Acute inhalation LC50:	Rat 4-hr LC ₅₀ : >2.49 mg/L
Eye irritation:	Slightly irritating.

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Skin irritation:	Non-irritating.
Sensitization:	Not a sensitizer.
Carcinogenicity:	No component of this product present at levels greater than or equal to 0.1% is listed with NTP, IARC or OSHA.

12. ECOLOGICAL INFORMATION

Environmental Hazards:	Toxic to aquatic organisms with long lasting effects. Keep out of any body of water.
Ecotoxicity:	96-hour LC ₅₀ : >0.2 mg/L <i>Onchorhynchus mykiss</i>
Diflubenzuron (35367-38-5)	96-hour LC ₅₀ : >0.13 mg/L <i>Cyprinodon spp.</i>
	48-hour EC ₅₀ : 0.003 mg/L <i>Daphnia magna</i>
Persistence and degradability:	Diflubenzuron: Not readily biodegradable.
Bioaccumulation:	Diflubenzuron BCF >100

13. DISPOSAL CONSIDERATIONS

Product disposal:	Wastes resulting from the use of this product that cannot be used must be disposed in accordance with applicable Federal, State or local regulations at an approved waste disposal facility.
Container disposal:	Emptied container retains product residue. Observe all labeled safeguards until container is destroyed or offered for recycling. Clean container promptly after emptying.

14. TRANSPORT INFORMATION

U.S. DOT:	Not regulated in packages less than or equal to 119 gallons (450 liters).
Shipping Description:	UN3082, Environmentally hazardous substances N.O.S. (diflubenzuron), 9, PG III, MP

15. REGULATORY INFORMATION

U.S. Federal Regulations:

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. Following is the hazard information as required on the pesticide label:

Signal word: Caution

EPA Registration No.: 74530-70

Hazards to Humans and Domestic Animals

Harmful if absorbed through skin. Avoid contact with skin, eyes 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. Wear: Long-sleeved shirt and long pants, socks, shoes, and waterproof gloves.

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Environmental Hazards

This pesticide is toxic to terrestrial juvenile insects and aquatic invertebrates/mollusks/insects. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

TSCA: Not subject to TSCA, product is regulated under FIFRA.
SARA 311/312: Acute health hazard
SARA Title III Section 313: Diflubenzuron (CAS 35367-38-5) listed
CERCLA: None listed.

U.S. State Regulations:

State Right-to-Know Regulations

State:	MA	NJ	PA	RI
Diflubenzuron	X	X	X	X

California Proposition 65: This product contains substances known to the state of California to cause cancer and/or reproductive/developmental effects.

16. OTHER INFORMATION

NFPA Ratings:	Health	Fire	Instability
	1	0	0

Revision No.: 1.0
Revision Date: 06-September-2016
Revision Note: Initial release

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; CST - Centistokes; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; GHS - Global Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MP - Marine Pollutant; NFPA - National Fire Protection Association; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Other information / Disclaimer

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE, except that the product shall conform to contracted specifications, and that the product does not infringe any valid United States or Canadian patent. No

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claim of any kind shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

End of Safety Data Sheet