

MATERIAL SAFETY DATA SHEET

ClariFly Larvicide 8% Manufacturing Use Product

Manufacturer: Wellmark International

Address: 1501 East Woodfield Road, Suite 200 West Schaumburg, IL 60173

Emergency Phone: 1-800-347-8272

Transportation Emergency Phone: CHEMTREC: 1-800-424-9300

1. CHEMICAL PRODUCT INFORMATION

Product Name: ClariFly Larvicide 8% Manufacturing Use Product
Chemical Name/Synonym: Diflubenzuron: 1-[4-chlorophenyl]-3-[2,6-difluorobenzoyl] urea
Chemical Family: Benzoylurea
Formula: C₁₄H₉ClF₂N₂O₂
EPA Registration No.: 2724-801
RF Number: 2128A

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component (chemical, common name)</u>	<u>CAS Number</u>	<u>Weight</u>	<u>Tolerance</u>
Diflubenzuron: 1-[4-chlorophenyl]-3-[2,6-difluorobenzoyl] urea	353678-38-5	8%	ND
Other ingredients (non-hazardous and/or trade secret)	Mix	92%	ND

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENTS
KEEP OUT OF THE REACH OF CHILDREN
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION
HARMFUL IF SWALLOWED OR ABSORBED THROUGH THE SKIN
CAUSES MODERATE EYE IRRITATION WEAR PROTECTIVE EYEWEAR
WASH HANDS BEFORE EATING, DRINKING, CHEWING GUM, USING TOBACCO OR USING THE TOILET

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Excessive overexposure to active ingredient may cause methemoglobinemia

PRIMARY ROUTE OF ENTRY Dermal/Eye: Yes Oral: No Inhalation: Yes

ACUTE TOXICITY

Oral: Harmful if swallowed.
Dermal: Harmful if absorbed.
Inhalation: No specific hazard identified.

OTHER TOXICOLOGICAL INFORMATION

Skin Irritation: May cause irritation.
Eye Irritation: Causes moderate eye irritation.
Sensitizer: Not a dermal sensitizer.

4. FIRST AID MEASURES

Eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.
Skin:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 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 by a poison control center or doctor. Do not give anything to an unconscious person.
Note to Physician:	There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition.

5. FIRE FIGHTING MEASURES

NFPA Rating:	Health: 1	Fire: 0	Reactivity: 0
Flammability Class:	Non-combustible solid.		
Flash Point:	Not applicable.		
Explosive Limits (% of Volume):	Not available.		
Extinguishing Media:	Water fog, dry chemical, foam or CO ²		
Special Protective Equipment:	Firefighters should wear full protective clothing including self contained breathing apparatus.		
Fire Fighting Procedures:	Normal procedures. Do not allow fire fighting water to escape into waterways or sewers.		
Combustion Products:	Oxides of carbon and nitrogen, irritating fumes, chlorine gas.		
Unusual Fire/Explosion Hazards:	None known		

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken:	Sweep up material and place in suitable disposal container. All clean up and disposal should be carried out in accordance with federal, state and local regulations. If required, state and local authorities should be notified.
Absorbents:	None necessary due to product form.
Incompatibles:	Avoid strong acids, strong bases, and oxidizing agents. Can become corrosive to metals when wet.

7. HANDLING AND STORAGE

Handling:	Avoid contact with skin, eyes or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling.
Storage:	Store in a cool dry place away from other pesticides, food and feed.

8. EXPOSURE CONTROL/PERSONAL MEASURES

Exposure Limits:	Not available.
Ventilation:	Use adequate ventilation to control airborne dust concentrations.
Personal Protective Equipment:	If airborne dust is present, use appropriate respiratory protection. Use chemical resistant gloves, safety glasses and protective clothing to prevent eye and skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Fine, white granular solid, moderate chalk-like odor.
Boiling Point:	Not applicable.
Melting Point:	Not known.
Vapor Pressure (mm Hg):	Not known.
Vapor Density (Air = 1):	Not known.
Specific Gravity:	1.21 g/cc (bulk density).
Bulk Density:	53 – 83 lb / ft ³ .
Solubility:	Very soluble (90%).
Evaporation Rate:	Not known.
pH:	Not known.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal storage and handling conditions.
Reactivity:	Not reactive.
Incompatibility w/ Other Materials:	Avoid strong acids, strong bases, and oxidizing agents. Becomes corrosive with metals when wet.
Decomposition Products:	May evolve chlorine gas when in contact with strong acids. Other hazardous decomposition irritating fumes.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY [Specific to Active Ingredient]:

Diflubenzuron

Acute oral toxicity: LD50 >4640 mg/kg (rat)
Acute dermal toxicity: LD50 >2000 mg/kg (rabbit)
Acute inhalation: LC50 (6 hr) >2.88 mg/L (rat)
Skin irritation: Moderate irritation
Eye irritation: Slight irritation
Not a dermal sensitizer

CHRONIC TOXICITY [Specific to Active Ingredient]

Diflubenzuron

In a 104-week rat chronic feeding study technical grade diflubenzuron was administered in the diet to rats at dose from 0.35 to 7.05 mg/kg/day. The NOEL for methemoglobinemia in this study was 1.43 mg/kg/day in males and 1.73 mg/kg/day in females.
Diflubenzuron was not a carcinogen in rats and mice.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY [Specific to Active Ingredient]

Diflubenzuron

In developmental studies in rats and rabbits the NOEL for maternal was 1,000 mg/kg/day and the NOEL for developmental toxicity was greater than 1,000 mg/kg/day.

In a 2-generation reproduction a NOEL for paternal adults was not established. The LEL was 25 mg/kg/day, based on methemoglobinemia, hemolytic anemia, destruction of erythrocytes, and pathological changes in the spleen and liver. The NOEL for reproductive performance in parental adults was 2500 mg/kg/day. The NOEL for developmental toxicity in progeny was 250 mg/kg/day and the LEL was 2500 mg/kg/day, based on decreased body weights in F1 pups from birth to 21 days postpartum

MUTAGENICITY [Specific to Active Ingredient]

Diflubenzuron was negative in the Salmonella/mammalian microsome plate incorporation assay; an *in vitro* chromosome aberration assay in Chinese hamster ovary (CHO) cells; and an unscheduled DNA synthesis (UDS) assay in primary rat hepatocytes

12. ECOLOGICAL INFORMATION

ECOTOXICITY [Active Ingredients Only]

Acute Toxicity: **Fish:** LC50 >106.4 mg/L (rainbow trout); LC50 >64.8 mg/L (zebra fish).
Aquatic invertebrates: LC50 = 0.0026 mg/L (Daphnia magna); **Plants:** IC50 >80 mg/L (Selenastrim capricornutum).

13. DISPOSAL CONSIDERATIONS

Wastes resulting from use of this product should be disposed of in accordance with all federal, state and local requirements. For additional regulatory information, see section 15 of this document.

14. TRANSPORT INFORMATION

DOT49CFR Description: Not applicable.

Freight Classification: Insecticides non-hazardous NMFC I-155050 sub 4 Class 70

15. REGULATORY INFORMATION

CERCLA (Superfund): Not regulated

RCRA: Not regulated

SARA 311/312 HAZARD CATEGORIES

Immediate Health: Yes

Delayed Health: No

Fire: No

Sudden Pressure: No

Reactivity: No

The information presented herein, while not guaranteed, was prepared by technically knowledgeable personnel and to the best of our knowledge is true and accurate. It is not intended to be all inclusive and the manner and conditions of use and handling may involve other or additional considerations.