



MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

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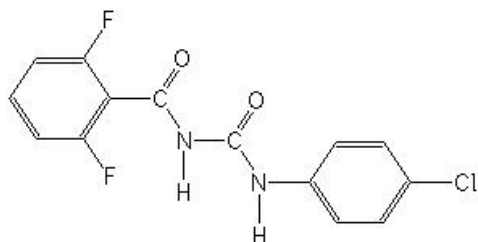
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1. Chemical Product Identification

Product Name: Diflubenzuron 480 g/L SC

Molecular Formula: C₁₄H₉ClF₂N₂O₂

Structural Formula:



Molecular Weight: 310.7 g/mol

Chemical Name (IUPAC): 1-(4-chlorophenyl)-3-(2,6-difluorobenzoyl)urea

Appearance: White suspension liquid

Odor: slight odor

2. Composition / Information On Ingredients

Composition	CAS No.	Content g/L
Diflubenzuron	35367-38-5	480.0
others	--	520.0

3. Hazards Identification

Component	Symbol	R phrases
Diflubenzuron	Xn	R20/22-36



More important danger for the man: None

Dangers for the environment: Diflubenzuron is practically nontoxic to fish and aquatic invertebrates.

Physical-chemical dangers: none

4. First Aid Measures

Skin: Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.

Eyes: First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.

Inhalation: Move affect person to fresh air and keep at rest until recovered. If not breathing, give artificial respiration and get to a doctor.

Ingestion: Do not induce vomiting if the person is conscious. Give glass of water. Get to a doctor.

Notes to physician: No specific antidote if ingested. Treat symptomatically.

5. Fire-Fighting Measures

Flash point : Not highly flammable.

Flammable limits:

LFL: Not determined.

UFL: Not determined.

Autoignition temperature: Not determined.

Hazardous combustion products: In a fire toxic fumes containing nitrogen, chloride and fluorine oxides may be released.

Extinguishing media: For large fires: Alcohol-type foam or universal-type foams. For small fires: CO₂,dry chemical or water spray.

Media to be avoided: water jets.

Fire-fightig instructions: Do not discharge extinguishing waters into streams, rivers or lakes.

Protective equipment for firefighters: body covering protective clothing, full "turn-out" gear.

Self contained breathing apparatus.

6. Accidental Release Measures

Personal cautions: Wear self-contained breathing apparatus, rubber boots and heavy rubber



gloves.

Environmental precautions: Prevent from entering sewer system, surface water or soil. May be harmful to aquatic life.

Method for cleaning up:

Small spills: Absorb on inert material such as sand, earth, vermiculite. Collect for disposal.

Large Spills: Dike to contain spill. Pump excess material into suitable container (metal drums, metal tank or such)

7. Handling and Storage

Keep out of reach of children and animals. Store in original containers only, in cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or diluted material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

8. Exposure Controls / Personal Protection

Exposure limits: No exposure limits have been established for this material.

Engineering controls: ensure ventilation. Eye bath: safety shower.

Personal protective equipment (PPE)

Respiratory protection: May be needed if product is used in a confined or poorly ventilated area.

Skin protection: Wear protective clothing. Chemical resistant protective gloves.

Eye protection: Safety glasses with side shields.

9. Physical And Chemical Properties

Appearance: White suspension liquid

Odor: slight odor

Boiling point: Approx. 100°C

PH: 6.0-9.0

Suspensibility: $\geq 90\%$

Fineness (through 44 μm sieve): $\geq 99\%$

10. Stability And Reactivity

Chemical stability: Stable under normal conditions



Conditions to avoid: Keep away from heat, sparks and flame. Avoid direct sunlight.

Hazardous decomposition products: Irritating fumes. Oxidizing agents .

Incompatible materials: Strong acids, bases and oxidizing agents.

Hazardous reactions: Hazardous polymerization will not occur.

11. Toxicological Information

Acute oral LD₅₀ for rats is >4640 a.i.mg/kg

Acute dermal LD₅₀ for rats is >2000 a.i.mg/kg

Acute inhalation toxicity LC₅₀ (4 h) for rats is >2.5 a.i.mg/L

Skin irritation: Non-irritating to skin (rabbits)

Eye irritation: Slightly irritating to eyes (rabbits)

Skin sensitization for guinea pig: Non-sensitizing

12. Ecological And Ecotoxicological Information

Effect on birds: Acute oral LD₅₀ for Bobwhite quail is >5000 a.i.mg/kg.

Effect on fish: Acute LC₅₀ (96 h) for Rainbow trout is >0.13 a.i.mg/l.

Effects on aquatic invertebrates: Acute EC₅₀ (48 h) for Daphnia magna is 0.0026 a.i.mg/l.

Effects on algae: Acute 72 hour EC₅₀ for Pseudokirchneriella subcapitata is 20 a.i.mg/l.

Effects on bees: Contact acute 48 hour LD₅₀ is >30 a.i.µg/bee, oral acute 48 hour LD₅₀ is >25 a.i.µg/bee.

Effects on earthworms: Acute 14 day LC₅₀ is >500 a.i.mg/kg.

13. Disposal Considerations

Must be dumped or incinerated in accordance with local regulations.

Contaminated packaging:

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

Contaminated packaging should be emptied as far as possible and disposed of in accordance with official regulations after being thoroughly cleaned.

Uncontaminated packaging may be treated as household waste.

14. Transport Information

Not applicable



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15. Regulatory Information

Not applicable

16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.