

Chlorsulfuron -MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

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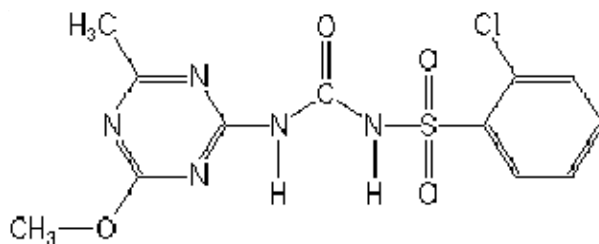
1. Chemical Product Identification

Product Name: Chlorsulfuron

Molecular Formula: $C_{12}H_{12}ClN_5O_4S$

Molecular Weight: 357.8

Structural Formula:



Chemical Name: 1-(2-chlorophenylsulfonyl)-3-(4-methoxy-6-methyl-1,3,5-triazin-2-yl)urea (IUPAC);

Form: granule;

Color: brown

Odor: with slight odor.

CAS No.: 64902-72-3

2. Composition / Information on Ingredients

Composition	CAS No.	Content %
Chlorsulfuron	64902-72-3	75.0%
Other ingredients		25.0%

3. Hazards Identification

More important danger for the man: none

Dangers for the environment: toxic to aquatic.

Physical-chemical dangers: can decompose at high temperatures forming toxic gases.

4. First Aid Measures

Skin: remove contaminated clothing and shoes, flush with plenty of water and soap.

Eyes: flush with plenty of clear water for 15-20 minutes.

Inhalation: move affected 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; drink plenty of water. Then see doctor immediately.

5. Fire-Fighting Measures

Extinguishing media

To be used: water spray, foam, dry chemical powder and carbon dioxide.

Don't use: not applicable

Particular risk: none.

Measures of personal protection: safety glasses or goggles, rubber gloves, shoes plus socks, long-sleeved shirt, and long pants.

Environmental cautions

EX: prevent the contamination of the floor and of beds of water.

6. Accidental Release Measures

Personal cautions: The product is harmful if inhaled or swallowed. Will irritate the eyes, nose, throat and skin. Avoid inhaling spray mist. Keep people and animals away and upwind.

Cleaning methods

EX: clear the liquid formation. Transfer to a properly labelled deposit that will be closed and sealed until the recovery of elimination of the product.

Environmental cautions

EX: prevent the contamination of the floor and of beds of water.

7. Handling and Storage

Formulation is stable if stored in an airtight container and free of moisture and high humidity. Keep out of reach of children. Do not contaminate water, food, or feed by storage or disposal. Keep from contact with fertilizers, insecticides, fungicides, and seeds

during storage. Avoid breathing dust or spray mist. Avoid contact with skin, eyes, and clothing. Do not apply, drain, or flush equipment on or near desirable trees or other plants.

8. Exposure Controls/Personal Protection

PEL: not applicable

Personal protective equipment: full-length overalls

Respiratory protection: approved respirator.

Protective gloves: rubber gloves

Eye protection: safety goggles or face shield.

Industrial hygiene: adequate ventilation.

9. Physical and Chemical Properties

Melting point: 174-178°C

Density: not applicable

Water solubility: 590 (pH 5), 31800 (pH 7) (both in mg/l, 25°C).

Other solubility: In dichloromethane 1.4, acetone 4, methanol 15, toluene 3, hexane <0.01 (all in g/l, 25°C).

PH value: 3.0~6.0;

Flash point: none;

Ignition temperature: not applicable

10. Stability and Reactivity

Conditions to avoid: high temperature;

Products to avoid: not applicable

Thermal decomposition: Decomposes at 192°C;

Hazardous decomposition products: nitride, chloride and carbon dioxide;

Hazardous reaction: none;

11. Toxicological Information

Acute oral LD50 : 5545mg/kg for rat

Acute dermal LD50 : >3400mg/kg for rabbit

Contact with the skin: no irritation to skin

Contact with the eyes: mild irritation to eyes

Inhalation: not applicable;
Ingestion: not applicable;
Sharp toxicity: none
Sensitisation: non-sensitising to skin.

12. Ecological And Ecotoxicological Information

Ecological effects

Fish: LC₅₀(96h) for rainbow trout >250, bluegill sunfish >300 mg/L. EC₅₀ (48h)daphnia >112 mg/L.

Bird: LD₅₀(acute oral) bobwhite quail and mallard duck>5000 mg/kg. Dertary LC₅₀ (8 d) for mallard ducks and bobwhite quail >5000mg/kg diet.

Bee: LD₅₀(contract) >100 μ g/bee.

Worm: LC₅₀ >2000mg/kg.

13. Disposal Considerations

Product: do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state and environmental regulations.

14. Transport Information

Not applicable.

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.