

MATERIAL SAFETY DATA SHEET

(MSDS)

Tribenuron-methyl

1. Chemical Product Identification

Product Name: Tribenuron-methyl

Molecular Formula: C₁₅H₁₇N₅O₆S

Molecular Weight: 395.4

Structural Formula:

Chemical Name: methyl 2- (((((4-methoxy-6-methyl-1,3,5-triazin- 2-yl) methylamino) carbonyl) amino) sulfonyl) benzoate

Form: solid

Color: Off White

Odor: Slightly Pungent

CAS No.: 101200-48-0

UN NO.: 3077

2. Composition / Information on Ingredients

Composition CAS No. Content %

Tribenuron-methyl 101200-48-0 75.0

Other ingredients 25.0

3. Hazards Identification

May cause sensitization by skin contact. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. First Aid Measures

General advice: Never give anything by mouth to an unconscious person.

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed. Consult a physician.

Skin contact: Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.

Eye contact: Rinse thoroughly with plenty of water, also under the eyelids.

Keep eye wide open while rinsing. Consult a physician.

Ingestion: Drink 1 or 2 glasses of water. Do not induce vomiting without medical advice. Consult a physician.

5. Fire-Fighting Measures

Suitable extinguishing media: water spray, foam, dry chemical, carbon dioxide (CO₂),

Extinguishing media which must not be used for safety reasons: high volume water jet, (contamination risk).

Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus.

Further information: (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers/ tanks with spray water

6. Accidental Release Measures

Personal precautions: Wear personal protective equipment.

Environmental precautions: Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

Methods for cleaning up: Clean up promptly by scoop or vacuum. Use approved industrial vacuum cleaner for removal. Shovel into suitable container for disposal. If spill area is on ground near valuable plants or trees, remove 5 cm of top soil after initial cleanup.

7. Handling And Storage

Handling

Advice on safe handling: Provide appropriate exhaust ventilation at places where dust is formed. Wear personal protective equipment.

Advice on protection against fire and explosion: Keep away from heat and sources of ignition.

Storage

Requirements for storage areas and containers: Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from food, drink and animal feeding stuffs. Keep out of reach of children.

Advice on common storage: No materials to be specially mentioned.

8. Exposure Controls/Personal Protection

Respiratory protection: Half mask with a particle filter P2

Hand protection: Material: nitrile rubber

Glove thickness: 0,4 - 0,7 mm

Wearing time: > 480 min

Do not wear cotton or leather gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Eye protection: safety glasses with side-shields

Skin and body protection: lightweight protective clothing

Hygiene measures: Wash hands before breaks and immediately after handling the product.

When using, do not eat, drink or smoke. For environmental protection remove and wash all contaminated protective equipment before re-use. Dispose of rinse water in accordance with local and national regulations.

Protective measures: All chemical protective clothing should be visually inspected prior to use.

Clothing and gloves should be replaced in case of chemical or physical damage or if contaminated.

9. Physical and Chemical Properties

Melting Point: 141 °C

Vapor Pressure: 4.0 x 10 to the minus 10 millimeter Of Mercury

Dissociation Constant pKa: pKa value = 4.7

PH: 4.27 (slurry in water)

Stability: Relatively unstable in most solvents, especially aqueous solvents. Stable to metals.

Relatively stable to sunlight Octanol/Water Partition Coefficient: 0.30 @ pH - 7.0

10. Stability and Reactivity

solubility limits in organic solvents at 25 °C (acetone) 43.8 mg/L,(acetonitrile), 54.2 mg/L g/,(Carbon Tetrachloride), 3.12 mg/L (Ethyl Acetate) 17.5mg/L, (Hexane) 0.028 mg/L (Methanol), 3.39 mg/L

11. Toxicological Information

Acute Oral Toxicity-Rat: > 5000 milligrams/kilogram/day (mg/kg/day)

Acute Dermal Toxicity-Rabbit: > 2000 mg/kg both sexes;

Dermal Irritation-Rabbit: Irritation cleared by 72 hours;

Eye Irritation-Rabbit: Opacity and irritation cleared within 72 hours;

Dermal Sensitization-Guinea Pig: Nonsensitizing

Acute Inhalation: > 6.7 mg/L both sexes;

12. Ecological and Ecotoxicological Information

Further information on ecology

Additional ecological information: No data is available on the product itself

13. Disposal Considerations

Sweep spilled substance into covered containers; if appropriate, moisten first to prevent dusting.

Do not let this chemical enter the environment.

14. Transport Information

UN NO. 3077

CLASS: 9

PG: III

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.