

MATERIAL SAFETY DATA SHEET

Section 1. Company Contact and Chemical Product Information

Product Name: **VOLTA[®]** Agricultural Herbicide

EPA Reg. No.: 83100-9-83979

Product Code: FH-012

Corporate Contact: 1-866-927-6826

Emergency number for spills and cleanup: CHEMTREC: 1-800-424-9300

Chemical Name of Active Ingredient (IUPAC):

Methyl: 3-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl]-2-thiophenecarboxylate

Chemical Formula of Active Ingredient:

C₁₂H₁₃N₅O₆S₂

CAS Registry Number of Active Ingredient:

79277-27-3

Section 2. Composition/Information on Ingredients

| Component | CAS Number | Content (g/kg) |
|-----------------------|----------------|----------------|
| Thifensulfuron-methyl | 79277-27-3 | Min. 750 |
| Inert ingredients | Not Applicable | Max. 250 |

Section 3. Hazards Identification

CAUTION: Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

Section 4. First Aid Measures

If in Eyes: Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on Skin or Clothing: 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.

For information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378 or a poison control center for assistance.

Section 5. Fire Fighting Measures

Fire and Explosion Hazard: Negligible fire and explosion hazard.

Firefighting Media: Carbon dioxide, dry chemical or water spray to extinguish fire.

Firefighting Precaution: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Keep unnecessary people away. Use as little water as possible. Dike area of fire to prevent material run-off. Decontaminate emergency personnel with soap and water before leaving the fire area. Avoid breathing dusts, vapors and fumes from burning materials. Control run-off water.

Section 6. Accidental Release Measures

In case materials are released, use suitable protective equipment (Section 8) and follow all fire prevention procedures (Section 5). Keep unnecessary persons away. Isolate hazard area and deny entry. Move containers away from spill to a safe area. Shovel or sweep dry material or absorb spills with suitable absorbing material and place in a sealed container for disposal. Prevent liquid from entering sewers, waterways or low areas.

Section 7. Handling and Storage

Handling Precautions: Avoid getting in eyes or on skin, or clothing and breathing dust. Remove contaminated clothing immediately. Wash thoroughly after handling.

Storage Precautions: Store in a cool, dry area. 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.

Section 8. Exposure Controls/Personal Protection

Engineering Controls: Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust or process enclosure ventilation system.

Eye/Face: To protect against accidental eye contact, goggles/face-shield should be worn.

Skin Protection: Rubber gloves should be worn. Wash thoroughly with soap and water after handling.

Respiratory Protection: Ensure good ventilation. For maximum protection, wear a supplied air, full-facepiece respirator, air lined hood, or full-facepiece self-contained breathing apparatus.

Section 9. Physical and Chemical Properties

| | |
|---------------------|------------------------|
| Appearance | Off-white granule |
| Odor | No characteristic odor |
| Bulk Density | 0.668 - 0.699g/ml |
| Solubility | Soluble in water |

Section 10. Stability and Reactivity

Stability: Stable under the normal handling and storage conditions.

Incompatibilities: Avoid mixed with strong acids and alkalis.

Hazard Decomposition: Thermal decomposition may emit toxic fumes of CO₂, NO₂ and organic sulfides.

Hazard Polymerization: Will not occur.

Section 11. Toxicological Information

Acute Oral Toxicity: LD50 for rats >5000 mg/kg

Acute Dermal Toxicity: LD50 for rats >5050 mg/kg

Acute Inhalation Toxicity: LC50 for rats > 5.18mg/l

Skin Irritation: No irritating.

Eye Irritation: No irritating.

Section 12. Ecological Information

This product has a very low toxicity to aquatic organism and wild animals. Referenced technical active ingredient ecological information list as below:

| | |
|--------------|--|
| Birds | Acute oral LD50 for mallard ducks >2510 mg/kg. Dietary LC50 (8 d) for mallard ducks and Japanese quail >5620 mg/kg diet. |
| Fish | LD50 (96 h) for rainbow trout and bluegill sunfish >100, catfish 360 mg/l. Daphnia LC50 (48 h) 970 mg/l |
| Bee | Non-toxic to bees. LD50 (topical) >12.5 µg/bee |

Environmental Fate:

Animals In mammals, following oral administration of thifensulfuron-methyl, 70-75% of the unchanged material is excreted in the urine and feces. The primary degradation mechanism involves hydrolysis of the methoxycarbonyl group, *O*-demethylation of the heterocyclic ring, and hydrolysis of the sulfonylurea group.

Plants In plants, complete degradation of thifensulfuron-methyl occurs within a few days. In tolerant crops such as cereals, the a.i. is almost completely hydrolyzed within 24 h. DT50 in wheat c. 3-4 h, in soybeans c. 5-6 h. See also Mode of action.

Soil/Environment:

Thifensulfuron-methyl is broken down in soil to non-active metabolites by microbial degradation and chemical hydrolysis. Under the same soil conditions, it decomposes 20-50 times more rapidly than metsulfuron-methyl. DT50 in soil c. 6-12 d under natural sunlight (c. 14 d in the absence of sunlight); DT50 (30 °C, pH 8) only a few hours. Kd (silt loam) 0.6-8.6

Section 13. Disposal Considerations

Disposal of product would be treated, stored, transported, and disposed of according to the local waste regulation authority. Do not flush to surface water or sanitary sewer system.

Section 14. Transport Information

US DOT Classification

Proper Shipping Name: Agricultural Herbicide, Solid, Not Regulated

IMO Classification

Proper Shipping Name: Environmentally hazardous substance, solid, N.O.S.
(Thifensulfuron-methyl) 750g/kg Water Dispersible Granule

Class: 9

UN No.: 3077

Packaging Group: PG III

Marine Pollutant

IATA Classification

Proper Shipping Name: Environmentally hazardous substance, solid, N.O.S.
(Thifensulfuron-methyl) 750g/kg Water Dispersible Granule

Class: 9

UN No.: 3077

Packaging Group: PG III

ADR Classification

Proper Shipping Name: Environmentally hazardous substance, solid, N.O.S.
(Thifensulfuron-methyl) 750g/kg Water Dispersible Granule

Class: 9

UN No.: 3077

Packaging Group: PG III

Section 15. Regulatory Information

USEPA Registered Company Address:

Rotam North America, Inc., 4900 Koger Blvd. Suite #140, Greensboro, NC 27407

Product Signal Word: CAUTION

European/International Regulation:

Hazard Symbols:

N Dangerous to environment.

Risk Phrases:

R 22 Harmful if swallowed.

Safety Phrases:

S 1/2 Keep locked up and out of reach of children.

S 3 Keep in a cool place.

S 24/25 Avoid contact with skin and eye.

Section 16. Other Information

Disclaimer: The information provided by Rotam North America, Inc. contained herein is given in good faith and to the best of our knowledge. However, no warranty is expressed or implied.

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