



1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Treaty Herbicide
EPA Reg. No.: 71368-74
Product Type: Herbicide

Company Name: Nufarm Americas Inc
 11901 S. Austin Avenue
 Alsip, IL 60803
 1-800-345-3330

Telephone Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,
 Call CHEMTREC Day or Night: 1-800-424-9300
 For Medical Emergencies Only, Call 1-877-325-1840

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as on the FIFRA label. Certain sections are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

2. HAZARDS IDENTIFICATION

PHYSICAL HAZARDS:

Combustible Dust

HEALTH HAZARDS:

Eye Irritation

Category 2A

ENVIRONMENTAL HAZARDS:

Hazardous to aquatic environment, acute

Category 1

Hazardous to aquatic environment, chronic

Category 1

SIGNAL WORD:

WARNING

HAZARD STATEMENTS:

May form combustible dust concentrations in air. Causes serious eye irritation. Very toxic to aquatic life with long lasting effects.



PRECAUTIONARY STATEMENTS

Wash thoroughly after handling. Wear eye protection. Avoid release to the environment.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.

Collect spillage.

Dispose of contents in accordance with local, state, and federal regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS	CAS NO.	% BY WEIGHT
Thifensulfuron Methyl	79277-27-3	74.2 – 78.9
Other Ingredients	Trade Secret	Trade Secret

Synonyms: Mixture containing Thifensulfuron-methyl (Methyl 3-[[[(4-methoxy-6-methyl-1, 3, 5-Triazin-2-yl) amino] carbonyl] amino] sulfonyl] -2-thiophenecarboxylate)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

If in Eyes: Hold eye open and rinse slowly and gently with water several minutes. Remove contact lenses, if present, then continue rinsing eye. Get medical attention if irritation develops and persists.

If on Skin or Clothing: Take off contaminated clothing. Wash with soap and water. Get medical attention if irritation develops and persists.

If Inhaled: Move person to fresh air. If symptoms develop, get medical advice.

If Swallowed: Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. If symptoms develop, get medical advice.

Most Important symptoms/effects, acute and delayed: May cause severe eye irritation. May cause slight skin irritation.

Indication of Immediate medical attention and special treatment if needed: For ingestion there is no specific antidote available. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Recommended for large fires: foam or water spray. Recommended for small fires: dry chemical or carbon dioxide.

Special Fire Fighting Procedures: Firefighters should wear NIOSH approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source, is a potential dust explosion hazard. If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later. Decontaminate tools and equipment following cleanup.

Hazardous Decomposition Materials (Under Fire Conditions): May produce oxides of carbon and nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

Methods for Cleanup and Disposal: If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

Other Information: Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

Handling:

Avoid contact with eyes, skin, or clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

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Storage:

Store product in original container only. Store in a cool, dry place. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Personal Protective Equipment:

Eye/Face Protection: Not normally required. To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection: To avoid contact with skin, wear long pants, long-sleeved shirt, shoes, socks and chemical-resistant gloves made of any waterproof material. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

Exposure Guidelines:

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
Thifensulfuron Methyl	NE	NE	NE	NE	
Other Ingredients	NE	NE	NE	NE	

NE = Not Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Beige colored granular solid
Odor:	Mild odor
Odor threshold:	No data available
pH:	5.26 (1% w/w dispersion in DIW)
Melting point:	No data available
Initial boiling point and boiling range	No data available
Flash point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	0.689 g/cm ³ (Tap)
Solubility(ies):	No data available
Partition coefficient: n-octanol/water:	No data available
Autoignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	Not applicable due to product form (solid, granules)

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical Stability: This material is stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Will not occur

Conditions to Avoid: Keep away from heat, sparks and open flame. Minimize dust generate and accumulation.

Incompatible Materials: Not known.

Hazardous Decomposition Products: Under fire conditions may produce oxides of carbon and nitrogen.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eye contact, Skin contact.
Eye Contact: Causes substantial but temporary eye injury.
Skin Contact: Slightly toxic and slightly irritating based on toxicity studies.
Ingestion: Slightly toxic based on toxicity studies.
Inhalation: Low inhalation toxicity.
Delayed, immediate and chronic effects of exposure: None expected.

Toxicological Data:

Data from laboratory studies conducted on this product:

- Oral:** Rat LD₅₀: >5,000 mg/kg
- Dermal:** Rabbit LD₅₀: >5,000 mg/kg
- Inhalation:** Rat 4-hr LC₅₀: >2.03 mg/L (no mortalities at highest dose tested)
- Eye Irritation:** Rabbit: Severely irritating (MMTS=30.3)
- Skin Irritation:** Rabbit: Slightly irritating (PDII=0.6)
- Skin Sensitization:** Not a contact sensitizer in guinea pigs following repeated skin exposure.

Subchronic (Target Organ) Effects: Repeated ingestion exposures to thifensulfuron-methyl caused decreased body and organ weights, and some blood chemistry changes, including increased blood urea nitrogen and decreased protein and globulins.

Carcinogenicity / Chronic Health Effects: Repeated overexposure to thifensulfuron-methyl may cause effects to liver, gall bladder, and blood chemistry. No carcinogenic effects were observed in animal tests with thifensulfuron-methyl.

Reproductive Toxicity: Animal tests with thifensulfuron-methyl have not demonstrated reproductive effects.

Developmental Toxicity: Thifensulfuron-methyl studies in laboratory animals show effects only at exposure levels producing toxic effects in the adult animal.

Genotoxicity: Neither *in vitro* nor *in vivo* tests on thifensulfuron-methyl demonstrated mutagenic effects.

Assessment Carcinogenicity:

This product contains substances that are considered to be probable or suspected human carcinogens as follows:

Component	Regulatory Agency Listing As Carcinogen			
	ACGIH	IARC	NTP	OSHA
Thifensulfuron Methyl	No	No	No	No
Other Ingredients	No	No	No	No

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Data on Thifensulfuron-Methyl:

96-hour LC ₅₀ Bluegill:	>100 mg/l	Bobwhite Quail Dietary LC ₅₀ :	>5,620 ppm
96-hour EC ₅₀ Rainbow Trout:	>100 mg/l	Mallard Duck Oral LD ₅₀ :	>2,510 mg/kg
48-hour EC ₅₀ Daphnia:	470 mg/l	Mallard Duck Dietary LC ₅₀ :	>5,620 ppm
72-hour EC ₅₀ Green Algae	0.0159 mg/l		

Environmental Fate:

The potential for mobility of Thifensulfuron-methyl in soil is very high with Koc values ranging from 13 – 55. Thifensulfuron-methyl has an average hydrolysis half-life of less than 7 days. The average field half-life is 12 days.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling and Disposal:

For Plastic Containers: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container half full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or

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disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times.

For Fiber Sacks: Nonrefillable container. Do not reuse or refill this container. Completely empty sack by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then offer for recycling, if available, or dispose of sack in a sanitary landfill or by or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

For Fiber Drums with Liners: Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then offer for recycling, if available, or dispose of liner in a sanitary landfill or by or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

For Paper and Plastic Bags: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

DOT

Non Regulated

IMDG

UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, NOS, (THIFENSULFURON-METHYL), 9, III, MARINE POLLUTANT

IATA

UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, NOS, (THIFENSULFURON-METHYL), 9, III, MARINE POLLUTANT

15. REGULATORY INFORMATION

EPA FIFRA INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

WARNING. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear appropriate protective eyewear, such as safety glasses.

U.S. FEDERAL REGULATIONS

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):

Acute Health, Fire Hazard

Section 313 Toxic Chemical(s):

None

Reportable Quantity (RQ) under U.S. CERCLA:

None

RCRA Waste Code:

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not listed.

16. OTHER INFORMATION

National Fire Protection Association (NFPA) Hazard Rating:

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Rating for this product: Health: 2 Flammability: 2 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

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