

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****Product Name:** Spyder® Selective Herbicide**EPA Reg. No.:** 228-408**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 Certain sections are superseded by federal law governed by EPA for a registered pesticide.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:**

Not hazardous

**HEALTH HAZARDS:**

Eye Irritation

Category 2B

Carcinogen

Category 1A

Specific Target Organ Toxicity – Repeat Exposure

Category 1

**ENVIRONMENTAL HAZARDS:**

Hazardous to aquatic environment, acute

Category 1

Hazardous to aquatic environment, chronic

Category 1

**SIGNAL WORD:**

DANGER

**HAZARD STATEMENTS:**

Causes eye irritation. May cause cancer by inhalation. Causes damage to lungs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Use personal protective equipment as required. Avoid release to the environment.

IF exposed or concerned: Get medical advice. Get medical advice if you feel unwell.

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.

Store locked up.

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

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NO.	% BY WEIGHT
Sulfometuron Methyl	74222-97-2	72.75 – 77.25
Limestone	1317-65-3	9.7 – 10.8
Cyrstalline Silica (quartz)	14808-60-7	<0.25
Proprietary process impurities	Trade Secret	Trade Secret

**Synonyms:** Mixture containing methyl 2-(4,6-dimethylpyrimidin-2-ylcarbamoylsulfamoyl)benzoate  
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 for several minutes. Remove contact lenses, if present, 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 with plenty of water for several minutes. Call a poison control center or doctor for treatment advice.

**If Swallowed:** Call a poison control center or doctor for treatment advice. 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 Inhaled:** Move person to fresh air. If breathing is difficult, administer oxygen. If symptoms develop, get medical advice.

**Most important symptoms/effects, acute and delayed:** May cause mild eye irritation. May cause slight skin irritation. Prolonged or repeated inhalation may cause lung damage or cancer.

**Indication of immediate medical attention and special treatment needed, if necessary:** Immediate medical attention should not be required.

**5. FIRE FIGHTING MEASURES**

**Extinguishing Media:** Use extinguishing media suitable for surrounding materials. Dry chemical, carbon dioxide, foam, water spray or fog.

**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:** If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later.

**Hazardous Decomposition Materials (Under Fire Conditions):** May produce gases such as oxides of carbon, hydrogen, nitrogen and sulfur.

**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 or clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

**STORAGE:**

Store product in original container only. Do not contaminate water, food, or feed by storage and 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, socks and shoes. 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	
Sulfometuron Methyl	NE	NE	NE	NE	
Crystalline Silica (quartz)	30 / %SiO <sub>2</sub> +2 (T) 10 / %SiO <sub>2</sub> +2 (R)	NE	0.025 (R)	NE	mg/m <sup>3</sup>
Other Ingredients	NE	NE	NE	NE	

NE = Not Established

T = Total Dust

R = Respirable fraction

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Tan colored granules
<b>Odor:</b>	Faint
<b>Odor threshold:</b>	No data available
<b>pH:</b>	7.52 (1% w/w dispersion in DIW)
<b>Melting point/freezing point:</b>	No data available
<b>Initial boiling point and boiling range</b>	No data available
<b>Flash point:</b>	No data available
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Upper/lower flammability or explosive limits:</b>	No data available
<b>Vapor pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Relative density:</b>	0.703 g / cc (tap)
<b>Solubility(ies):</b>	No data available
<b>Partition coefficient: n-octanol/water:</b>	No data available
<b>Autoignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	Not applicable due to product form (Solid)

**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:** Inhalation, Eye contact, Skin contact.

**Symptoms of Exposure:**

**Eye Contact:** Moderately irritating based on toxicity studies. May cause discomfort, redness and tearing.

**Skin Contact:** Mildly toxic and non-irritating based on toxicity studies.

**Ingestion:** Slightly toxic based on toxicity studies.

**Inhalation:** Low inhalation toxicity. May cause cancer or lung damage through prolonged or repeated exposure.

**Delayed, immediate and chronic effects of exposure:** None expected.

**Toxicological Data:**

Data from laboratory studies conducted on a similar, but not identical, formulation:

**Oral:** Rat LD<sub>50</sub>: >5,000 mg/kg

**Dermal:** Rabbit LD<sub>50</sub>: >2,000 mg/kg

**Inhalation:** Rat 4 hr: > 5.1 mg/L

**Eye Irritation:** Rabbit: Moderately irritating

**Skin Irritation:** Rabbit: Non-irritating

**Skin Sensitization:** Not a contact sensitizer in guinea pigs following repeated skin exposure.

**Subchronic (Target Organ) Effects:** Repeated overexposure to sulfometuron-methyl may cause decreased body weight gain, liver changes, red blood cell hemolysis and altered white blood cell counts. Prolonged or repeated inhalation may cause cancer or lung damage.

**Carcinogenicity / Chronic Health Effects:** Prolonged overexposure to sulfometuron-methyl can cause mild hemolytic anemia, decreased body weight, alteration of clinical chemical parameters, and changes in the bile duct. There was no evidence of carcinogenicity in animal studies using sulfometuron-methyl. The carrier for this product is not listed as a carcinogen. However, it may contain crystalline silica (e.g. quartz), a naturally occurring component. Inhalation of crystalline silica may cause pulmonary fibrosis (silicosis). Crystalline silica has been classified by IARC as carcinogenic to humans (Group 1), by the U.S. National Toxicology Program as a known human carcinogen and by ACGIH as a suspected human carcinogen (A2).

**Reproductive Toxicity:** In a two-generation reproduction study in rats with sulfometuron-methyl, decreased numbers of pups were observed at the 5,000 ppm level, a dose that was also maternally toxic. No reproductive effects were observed at 500 ppm.

**Developmental Toxicity:** Animal tests with sulfometuron-methyl have not demonstrated developmental effects.

**Genotoxicity:** Sulfometuron-methyl did not produce genetic damage in bacterial or mammalian cell cultures.

**Assessment Carcinogenicity:** None listed with ACGIH, IARC, NTP or OSHA.

Component	Regulatory Agency Listing As Carcinogen			
	ACGIH	IARC	NTP	OSHA
Sulfometuron Methyl	No	No	No	No
Crystalline Silica (quartz)	A2	1	Known	No
Other Ingredients	No	No	No	No

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity:

Data on Sulfometuron-methyl:

96-hour LC<sub>50</sub> Bluegill: >150 mg/l

96-hour EC<sub>50</sub> Rainbow Trout: >148 mg/l

48-hour EC<sub>50</sub> Daphnia: >150 mg/l

120-hour EC<sub>50</sub> Green Algae: 0.0046 mg/l

Bobwhite Quail 8-day Dietary LC<sub>50</sub>: >5,620 ppm

Mallard Duck 8-day Dietary LC<sub>50</sub>: >5,000 ppm

Mallard Duck Oral LD<sub>50</sub>: >5,000 mg/kg

### Environmental Fate:

Sulfometuron-methyl is moderately mobile in the environment but rapidly degrades. Sulfometuron-methyl is degraded by microbial action, photodegradation and hydrolysis. It will degrade more rapidly under acidic conditions, and in soils with higher moisture and organic contents and higher temperature. The photolysis half-life in soil is between 1 to 2 weeks. The hydrolysis soil half-life is reported as 4 weeks with longer times in colder conditions. In well aerated acidic water, sulfometuron-methyl is broken down quickly with reported half-lives from 1 to 3 days to 2 months.

**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. Contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional office for guidance.

**Container Handling and Disposal:**

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

**14. TRANSPORTATION INFORMATION**

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

**DOT**

Non regulated

**IMDG**

Non regulated

**IATA**

Non regulated

**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.

CAUTION. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

**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, Chronic Health

**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:**  **ATTENTION.** This product can expose you to chemicals including silica, crystalline which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**16. OTHER INFORMATION****National Fire Protection Association (NFPA) Hazard Rating:****Rating for this product: Health: 1    Flammability: 1    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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