

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****Product Name:** Micro Sulf® Micronized Wettable Sulfur**EPA Reg. No.:** 55146-75**Product Type:** Fungicide/Miticide**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 exactly 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 Certain sections are superseded by federal law governed by EPA for a registered pesticide.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****HEALTH HAZARDS:**

Skin Irritation

Category 2

**SIGNAL WORD:**

WARNING

**HAZARD STATEMENTS:**

Causes skin irritation.

**PRECAUTIONARY STATEMENTS**

Wash thoroughly after handling. Wear protective gloves.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice. Take off contaminated clothing and wash before reuse.

**3. COMPOSITION / INFORMATION ON INGREDIENTS****COMPONENTS**

Sulfur

**CAS NO.**

7704-34-9

**% BY WEIGHT**

78 - 82

Other ingredients

Trade Secret

Trade Secret

**Synonyms:** Sulfur, Sulphur

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. Call a poison control center or doctor for treatment advice.

**If Swallowed:** Call a poison control center or doctor for treatment advice. Do not give any liquid to the person. 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. Call a poison control center or doctor for further treatment advice.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for several minutes. Call a poison control center or doctor for treatment advice.

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

**Indication of Immediate medical attention and special treatment if needed, if necessary:** 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 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:** Avoid creation of dusty conditions. Scrape up and place in appropriate closed container. Wash entire spill area with a detergent slurry, absorb and sweep into container for disposal. 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:** Do not get in eyes or on clothing or skin. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**STORAGE:** Store product in a closed package in a cool, dry place. Do not store near flammable materials. Do not store in a manner where cross-contamination with other pesticides, fertilizers, food or feed could occur. If spilled during storage or handling, sweep up spillage and dispose of in accordance

with the Pesticide Disposal Instructions below. 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.

**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 |      |
| Sulfur            | NE   | NE   | NE    | NE   |      |
| Other ingredients | NE   | NE   | NE    | NE   |      |

NE = Not Established

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                                      |                     |
|------------------------------------------------------|---------------------|
| <b>Appearance:</b>                                   | Tan colored granule |
| <b>Odor:</b>                                         | Slight odor         |
| <b>Odor threshold:</b>                               | No data available   |
| <b>pH:</b>                                           | 9.74                |
| <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>                             | 0.967 gm/cc         |
| <b>Solubility(ies):</b>                              | Dispersible         |
| <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>                                    | No data available   |

**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:** Hazardous polymerization will not occur.

**Conditions to Avoid:** Excessive heat. Keep away heat, sparks or flame.

**Incompatible Materials:** None known.

**Hazardous Decomposition Products:** Under fire conditions may produce gases such hydrogen sulfide and oxides of sulfur.

## 11. TOXICOLOGICAL INFORMATION

**Likely Routes of Exposure:** Skin contact, inhalation

**Symptoms of Exposure:**

**Eye Contact:** Mildly irritating based on toxicity studies.

**Skin Contact:** Minimally toxic and moderately irritating based on toxicity studies.

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

**Inhalation:** Low inhalation toxicity based on toxicity studies.

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

**Toxicological Data:**

Data from laboratory studies conducted are summarized below:

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

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

**Inhalation:** Rat 4-hr LC<sub>50</sub>: >5.49 mg/L

**Eye Irritation:** Rabbit: Non-irritating

**Skin Irritation:** Rabbit: Mildly irritating

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

**Subchronic (Target Organ) Effects:** Repeated overexposure to sulfur may cause effects to skin, eyes, and respiratory system.

**Carcinogenicity / Chronic Health Effects:** Chronic inhalation of sulfur may result in eye and respiratory disturbances, bronchitis and sinus effects. No known carcinogenicity risks associated with sulfur.

**Reproductive Toxicity:** No known risks associated with sulfur.

**Developmental Toxicity:** No known risks associated with sulfur.

**Genotoxicity:** No known risks associated with sulfur.

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

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:**

Data on Sulfur:

|                                         |           |                                                 |            |
|-----------------------------------------|-----------|-------------------------------------------------|------------|
| 96-hour LC <sub>50</sub> Bluegill:      | > 180 ppm | 48-hour EC <sub>50</sub> Daphnia:               | >5,000 ppm |
| 96-hour LC <sub>50</sub> Rainbow Trout: | > 180 ppm | Bobwhite Quail 8-day Dietary LC <sub>50</sub> : | >5,620 ppm |

**Environmental Fate:**

Sulfur is a natural component of the environment and will become incorporated into the natural sulfur cycle. Elemental sulfur can upon oxidation form sulfuric acid, which can acidify soil or water ecosystems.

## 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. Improper disposal of excess pesticide is a violation of Federal law.

**Container Handling and Disposal:** Nonrefillable 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.

**Nonrefillable Containers 50 lbs or Less:** Nonrefillable container. Do not reuse or refill this container. 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 ¼ 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. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Nonrefillable Containers larger than 50 lbs:** Nonrefillable container. Do not reuse or refill this container. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

#### 14. TRANSPORTATION INFORMATION

##### DOT

##### **< 882 pounds per complete package**

Non Regulated – See 49 CFR special provision 30 & 173.132(b)(3)

##### **≥ 882 pounds per complete package**

NA 1350, Sulfur, 9, III

##### IMDG

Non Regulated - See IMDG special provision 242 & 2.6.2.1.3

##### IATA

Non Regulated - See IATA special provision A 105 & 3.6.1.5.3

#### 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. Harmful if swallowed, inhaled, or absorbed through skin. Avoid breathing dust or spray mist. Avoid contact with skin, eyes, or clothing.

##### **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

##### **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.

|                              |
|------------------------------|
| <b>16. OTHER INFORMATION</b> |
|------------------------------|

**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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**Date of Issue:** May 23, 2015

**Supersedes:** September 17, 2013