

1. IDENTIFICATION

Product Name: Wettable or Dusting Sulfur
EPA Reg. No.: 829-163
CAS No.: 7704-34-9
Synonyms: Agricultural Sulfur, Sulfur
Family Name: Element - Sulfur
Recommended Use: Spraying and dusting designated crops for the control of fungus, mold, mites and etc .. Carefully read the entire product label prior to use.
Restrictions on Use: Keep away from heat sources, sparks, or open flames
Company: Southern Agricultural Insecticides, Inc
P.O. Box 218
Palmetto, FL 34220
(941) 722-3285
Emergency Assistance: Chemtrec (800) 424-9300 (24 hour transportation spill response)
National Pesticide Information Center: (800) 858-7378

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 Certain sections of this SDS are superseded by federal law governed by EPA for a registered pesticide.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

2. HAZARD(S) IDENTIFICATION**GHS Classifications**

Skin irritant, Category 1
Eye irritant, Category 1
Flammability, Category 1

KEY
4 = Severe
3 = Serious
2 = Moderate
1 = Slight
0 = Minimal

GHS Label Elements

Signal Word: WARNING



Irritant
(Eye and Skin)



Flammable
Solid

Hazard Statement

H228: Flammable solid
H290: May be corrosive to metals.
H303: May be harmful if swallowed.
H316: May cause mild skin irritation.
H320: May cause eye irritation.
H335: May cause respiratory irritation.

Prevention Statement

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220: Keep away from oxidizing agents.
P242: Use non-sparking tools when available.
P243: Take precautionary measures against static discharge.
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P264: Wash hands thoroughly after handling and before eating.
P284: In case of inadequate ventilation, wear respiratory protection.

Response Statement

P362: Take off contaminated clothing.

P363: Wash contaminated clothing before reuse.

P370+P378: In case of a fire, use water fog, spray, or regular foam to extinguish.

Do not use a direct water stream.

P381: Eliminate all ignition sources.

Storage Statement

P402: Store in a dry place.

P403: Store in a well-ventilated place.

P404: Store in a closed container.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization

Mixture

Product	Percentage Contained	CAS Number
Sulfur	90.0	7704-34-9
Hydrated aluminum silicate	< 8.0	1332-58-7
Dispersant	< 1.0	proprietary
Synthetic precipitated silica	< 1.0	7631-86-9
Magnesium carbonate	< 1.0	7760-50-1
Decarboxylated resin	< 0.5	8050-18-8

Hazardous Ingredient None

4. FIRST AID MEASURES

Description of First Aid Measures

Skin	Wash skin thoroughly with mild soap and water. Wash exposed clothing separately before reuse.
Eye	Immediately flush eyes with plenty of water for 15 minutes, while holding upper and lower lid apart to insure rinsing of entire eye surface and lids. Do not use boric acid to rinse with. FOR SEVERE IRRITATION, SEEK MEDICAL ATTENTION, preferably an ophthalmologist.
Inhalation	Move victim to fresh air. Watch for signs of an allergic reaction. Use a bronchodilator inhaler if directed by asthma patient. Keep victim warm and quiet. If not breathing, give artificial respiration. If heart has stopped beating, start cardiopulmonary resuscitation (CPR). SEEK MEDICAL ATTENTION.
Ingestion	Give one tablespoon of Syrup of Ipecac to induce vomiting. If vomiting does occur, give fluids again. If vomiting has not occurred in twenty minutes, the same dose of Syrup of Ipecac may be repeated one additional time. Alternatively, vomiting may be induced by touching the back of the throat with a finger. Do not give anything by mouth to an unconscious or convulsing person. SEEK MEDICAL ATTENTION.

Most Important Symptoms and Effects (Long-Term and Acute)

Refer to Section 11: Toxicological Information

Indication of any Immediate Medical Attention or Special Treatment Needed

Individuals with known allergies to sulfide drugs may also have allergic reactions to elemental sulfur.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing

Media Water fog, spray, or regular foam. Do not use a direct water stream.

Unsuitable Extinguishing

Media Do not use solid streams of water, which could create sulfur dust clouds and cause an explosion or could move burning sulfur to adjacent areas.

Exposure Hazards Prevent human exposure to smoke, fumes, or products of combustion (sulfur oxide gases). Evacuate nonessential personnel from the fire area. If large fire, evacuate people downwind from fire. Consider evacuation for ½ mile in all directions.

Advice for Firefighters Firemen exposed to contaminated smoke should be immediately relieved and checked for symptoms of exposure of toxic gases. This should not be mistaken for heat exhaustion or smoke inhalation. SEEK MEDICAL ATTENTION IMMEDIATELY.

Protective Equipment Wear full-faced, self-contained breathing apparatus and full protective clothing.

Fire and Explosion Hazards Fire will rekindle until mass is cooled below 310°F (154°C). Cool surrounding areas with water fog to prevent re-igniting. Sulfur dust is HIGHLY FLAMMABLE. If suspended in air, it will ignite by friction, static electricity, heat, sparks, or flames. Sulfur dust clouds may explode.

Combustion Products Sulfur oxide gases.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Minor spills such as torn or ruptured containers should be repaired or patched with tape if possible. Place spilled material in a disposable container. Avoid getting dust in eyes.

Protective Equipment Maintain adequate ventilation. Wear a dust mask when dust is present or a respirator if smoke is present. Wear safety glasses.

Emergency Procedures As an immediate precautionary measure isolate spills or leak areas. Eliminate all sources of ignition, such as flares, sparks, or flames, in the immediate area. No smoking. Ventilate closed spaces before entering.

Environmental Precautions Do not allow runoff to enter lakes or waterways

Containment/Cleanup Measures Gently sweep or shovel up spilled material using a natural fiber broom and/or aluminum shovel to prevent sparking, to avoid creating a dust cloud. Place sweepings in an appropriate chemical waste container for reclaiming or disposal in an approved facility. Wash spill site after clean-up is complete.

7. HANDLING AND STORAGE

Precautions for Safe Handling **All handling and conveying equipment should be properly grounded and bonded.** Be careful not to create dust. Avoid any conditions that might tend to create a dust explosion. Maintain good housekeeping practices to minimize dust build-up and dispersion. Eliminate sources of ignition. Keep away from heat, sparks, and flames. Use nonferrous tools, when available, to reduce sparking. Gently sweep or shovel up spilled materials using a natural fiber broom and/or aluminum shovel to prevent sparking. Maintain adequate ventilation in all areas.

Conditions for Safe Storage, Including any Incompatibilities:

Containers should be stored in a cool, dry, well-ventilated area. Keep container tightly closed. Store away from flammable materials, sources of heat, flames, and sparks. Separate from chlorates, nitrates, and other oxidizing agents. Exercise due caution to prevent damage to or leakage from container.

Incompatible Materials Keep away from flammable materials, sources of heat, flame, sparks, chlorates, nitrates and other oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures/Control	Maintain adequate ventilation in all areas. No flares or flames in area. Be careful not to create dust. Eliminate sources of ignition.
Respiratory	Wear dust masks and use NIOSH/MSHA approved dust respirator if airborne concentrations exceed exposure limits.
Eyes/Face	Wear suitable, protective safety glasses to prevent eye irritation from dust.
Hands	Wash hands thoroughly after handling and before eating or smoking.
Skin/Body	Wear suitable, protective clothing to prevent skin irritation from dust. Wash skin thoroughly after handling and before eating or smoking. Wash contaminated clothing separately before reuse.
Environmental Exposure Controls	Follow best practice for site management and disposal of waste. Avoid release to the environment.
General Industrial Hygiene	Protective equipment should be used in any situation that may Considerations result in hazardous exposure. Maintain good housekeeping practices to minimize dust build-up and dispersion. Eliminate sources of ignition. Use nonferrous tools to reduce sparking. Sweep or shovel up spilled material using a natural fiber broom and/or aluminum shovel to prevent sparking. Maintain adequate ventilation in all areas.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Yellow colored lumps, crystals, powder, or formed shape
Formula	S ₈ (Rhombic or monoclinic)
Odor	Odorless, or faint odor of rotten eggs
Odor Threshold	No data available
pH	No data available
Boiling Point	832° F (444° C)
Melting/Freezing Point	118-120°C (244-248°F)
Flash Point	207°C (405°F) Closed Cup
Evaporation Rate	No data available
Flammability	May form combustible dust concentrations in air
Flammable/Explosion Limits	Upper: 6.38% (v) Lower: 0.17% (v)
Vapor Pressure	8 mmHg at 246°C (475°F) 1 mmHg at 183.8°C (362.8°F)
Vapor Density	No data available
Purity	90.0 Min. Wettable; 98.0 Min. Dusting
Auto-Ignition Temperature	240°C (464°F)
Decomposition Temperature	Does not decompose
Viscosity	Not applicable
Specific Gravity	2.07 @ 70° F
Solubility in Water	Insoluble
Bulk Density	Lumps: 75-115 lbs. /ft ³ Powder: 33-80 lbs. /ft ³

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Conditions to Avoid	Keep from heat sources, sparks, and open flames.
Incompatible Materials	Oxidizing agents, copper, copper alloys, steel, chlorates, nitrates.
Possibility of Hazardous Reactions	Oxidizing agents may react violently.
Hazardous Decomposition Products	Oxides of sulfur gases produced by burning sulfur.
Hazardous Polymerization	Will not occur.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure	Inhalation, ingestion, skin contact, and eye contact.
Signs and Symptoms of Overexposure	Nose or throat irritation, coughing, chest discomfort, asthma, difficulty breathing, skin irritation, nausea, vomiting, stinging eye irritation, and hives.
Exposure Limits	No exposure limits have been established.
Acute Symptoms and Effects	
Inhalation	Prolonged inhalation may cause irritation of respiratory tract. Breathing of dust may aggravate asthma and other pulmonary diseases.
Eye Contact	Sulfur dust is an eye irritant.
Skin Contact	No adverse effects. Skin irritation may be aggravated in persons with existing skin lesions.
Ingestion	Ingested sulfur is converted to sulfides in the gastrointestinal tract (GI), and ingestion of 10 to 20 grams has caused irritation of the GI tract and renal injury. Swallowing large amounts may cause nausea and vomiting
Long-Term Effects	None known to humans
Toxicity	LD₅₀ Oral: >5050 mg/kg (rats) Dermal: >2020 mg/kg (rats)
	LD₅₀ Skin Inhalation @ 90%: >5.49-mg/L air concentration (rats)
	Eye Slightly irritating (rabbits) Minimal irritation in non-washed eyes (rabbits)
Sensitization	Not Established
Reproductive Effects	Not Established
Developmental Effects	Not Established
Endocrine Disruptor	Not Established

Carcinogenicity, Teratogenicity, Mutagenicity

This product does not contain any ingredient designated by NTP, IARC, or OSHA as a probable human carcinogen.

12. ECOLOGICAL INFORMATION

Toxicity	
Toxicity to Fish	LC₅₀ Oncorhynchus mykiss (rainbow trout) -> 180 mg/l -96h LC₅₀ Other fish- 866 mg/l -96h
Toxicity to Daphnia and Other Aquatic Invertebrates	EC₅₀ Daphnia magna (Water flea) -> 5,000 mg/l -48h
Ecotoxicity	No data available
Mobility	No data available
Degradation	No data available
Bioaccumulation	No data available
Results of PBT and vPvB Assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Product Waste Dispose of content and/or container in accordance with local, regional, national and/or international regulations.

Packaging Waste Dispose of content and/or container in accordance with local, regional, national and/or international regulations.

14. TRANSPORT INFORMATION

Solid sulfur is not regulated if transported in non-bulk packaging (less than 400 kg per package) (880 lbs.), or if formed to a specific shape, such as prills, granules, pellets, pastilles, or flakes (49 CFR 172.102, Special Provision 30).

Other than US and Canadian Shipments

All shipments of powdered sulfur

IMO/IMDG	UN 1350	Sulfur (Sulfur)	4.1 (Flammable solid)	III	No data available
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IATA/ICAO	UN 1350	Sulfur	4.1	III	No data available
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This product is not a Marine Pollutant as defined in 40 CFR Part 172.

Special Precautions for User None specified

15. REGULATORY INFORMATION

TSCA This product is listed on the TSCA Inventory at CAS Registry Number 7704-34-9.

CERCLA *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*

- If this product is accidentally spilled, it is not subject to any special reporting. We recommend that you contact state and local authorities to determine if there are other local reporting requirements.

SARA TITLE III *Superfund Amendments and Reauthorization Act, Title III*

- Sections 311/312: None. Section 313: None. Section 302: None.

RCRA *Resource Conservation and Recovery Act*

- Not subject to reporting because sulfur is not identified as a hazardous waste.

16. OTHER INFORMATION

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