

# SAFETY DATA SHEET

# spectrum®



Revision date 14-March-2022

Revision Number 3

## 1. Identification

### Product identifier

**Product Name** Sublimed Sulfur

### Other means of identification

**Product Code(s)** S1358

**UN/ID no** UN1350

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended use** No information available

**Restrictions on use** No information available

### Details of the supplier of the safety data sheet

#### Supplier Address

Spectrum Chemical Mfg. Corp.  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000

### Emergency telephone number

**Emergency Telephone** Chemtrec 1-800-424-9300

## 2. Hazard(s) identification

### Classification

Flammable solids	Category 2
Combustible dust	Yes

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

#### **Warning**

#### Hazard statements

Flammable solid  
May form combustible dust concentrations in air  
May form combustible dust concentrations in air



**Appearance** Powder or Crystals

**Physical state** Solid

**Odor** Odorless

**Precautionary Statements - Prevention**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
Ground/bond container and receiving equipment  
Use explosion-proof electrical/ ventilating / lighting/ .? / equipment  
Wear protective gloves/eye protection/face protection  
Keep away from all ignition sources including heat, sparks, and flame  
Keep container closed and grounded  
Prevent dust accumulations to minimize explosion hazard

**Precautionary Statements - Response**

In case of fire: Use CO2, dry chemical, or foam to extinguish

**Other information**

No information available.

### 3. Composition/information on ingredients

**Substance**

Chemical name	CAS No	Weight-%	Trade secret
Sulfur, sublimed	7704-34-9	100	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. First-aid measures

**Description of first aid measures**

<b>Inhalation</b>	Remove to fresh air.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water.
<b>Self-protection of the first aider</b>	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

## Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

## **5. Fire-fighting measures**

**Suitable Extinguishing Media**  
**Large Fire** Dry chemical. Carbon dioxide (CO<sub>2</sub>). water spray. Alcohol resistant foam.  
CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical** risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Avoid generation of dust. Fine dust dispersed in air may ignite.

**Explosion data**

**Sensitivity to mechanical impact** none.

**Sensitivity to static discharge** yes.

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## **6. Accidental release measures**

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Avoid generation of dust. Avoid contact with eyes. Do not breathe dust.

**Other information** Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

### Methods and material for containment and cleaning up

**Methods for containment** Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Keep out of drains, sewers, ditches and waterways. Prevent further leakage or spillage if safe to do so. Prevent dust cloud.

**Methods for cleaning up** Take precautionary measures against static discharges. Pick up and transfer to properly labeled containers. Take up with inert, damp, non-combustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal.

## **7. Handling and storage**

### Precautions for safe handling

**Advice on safe handling** Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice.

## Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children.

## **8. Exposure controls/personal protection**

### Control parameters

**Exposure Limits** The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

### Appropriate engineering controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Tight sealing safety goggles.

**Hand protection** Wear suitable gloves. Impervious gloves.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Do not breathe dust.

## **9. Physical and chemical properties**

### Information on basic physical and chemical properties

**Physical state** Solid  
**Appearance** Powder or Crystals  
**Color** Yellow  
**Odor** Odorless  
**Odor threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	no data available	None known
Melting point / freezing point	112 - 120 °C / 233.6 - 248 °F	None known
Boiling point / boiling range	445 °C / 833 °F	None known
Flash point	207 °C / 404.6 °F	None known
Evaporation rate	no data available	None known
Flammability (solid, gas)	no data available	None known
Flammability Limit in Air		None known

<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	no data available	None known
<b>Relative density</b>	2.07	None known
<b>Water solubility</b>	Insoluble in water	None known
<b>Solubility(ies)</b>	Partially soluble in acetone Very slightly soluble in diethyl ether Sparingly soluble in alcohol	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	232 °C / 449.6 °F	None known
<b>Decomposition temperature</b>		None known
<b>Kinematic viscosity</b>	no data available	None known
<b>Dynamic viscosity</b>	No data available	None known
<b><u>Other information</u></b>		
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	
<b>Softening point</b>	No information available	
<b>Molecular weight</b>	32.07	
<b>VOC Content (%)</b>	No information available	
<b>Liquid Density</b>	No information available	
<b>Bulk density</b>	No information available	

## **10. Stability and reactivity**

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	Heat, flames and sparks. Excessive heat. Heating in air. dust formation.
<b>Incompatible materials</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	None known based on information supplied.

## **11. Toxicological information**

### **Information on likely routes of exposure**

#### **Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.

### **Symptoms related to the physical, chemical and toxicological characteristics**

<b>Symptoms</b>	No information available.
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#### **Acute toxicity**

**Numerical measures of toxicity**

## Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sulfur, sublimed 7704-34-9	> 3000 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 9.23 mg/L ( Rat ) 4 h

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.
<b>Other adverse effects</b>	No information available.
<b>Interactive effects</b>	No information available.

## 12. Ecological information

### Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sulfur, sublimed 7704-34-9	-	LC50: <14mg/L (96h, Lepomis macrochirus) LC50: =866mg/L (96h, Brachydanio rerio) LC50: >180mg/L (96h, Oncorhynchus mykiss)	-	-

<b>Persistence and degradability</b>	No information available.
<b>Bioaccumulation</b>	Inherently biodegradable.
<b>Other adverse effects</b>	No information available.

## 13. Disposal considerations

### Waste treatment methods

<b>Waste from residues/unused products</b>	Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated packaging</b>	Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

## 14. Transport information

### DOT

<b>UN/ID no</b>	UN1350
<b>Proper Shipping Name:</b>	Sulfur
<b>Hazard class</b>	4.1

**Packing group:** III  
**Special Provisions** 30, B120, IB8, IP3, T1, TP33  
**Marine Pollutant** Severe Marine Pollutant  
**Description:** UN1350, Sulfur, 4.1, III  
**Emergency Response Guide Number** 133

**TDG**

**UN-No:** UN1350  
**Proper Shipping Name:** Sulfur  
**Hazard class** 4.1  
**Packing Group:** III  
**Description:** UN1350, Sulfur, 4.1, III

**MEX**

**UN-No** UN1350  
**Proper Shipping Name** Sulphur  
**Hazard class** 4.1  
**Special Provisions** 242  
**Packing Group** III  
**Description** UN1350, Sulphur, 4.1, III

**ICAO (air)**

**UN-No:** UN1350  
**Proper Shipping Name:** Sulphur  
**Hazard class** 4.1  
**Packing Group:** III  
**Special Provisions** A105  
**Description:** UN1350, Sulphur, 4.1, III

**IATA**

**UN number** UN1350  
**Proper Shipping Name:** Sulphur  
**Transport hazard class(es)** 4.1  
**Packing group** III  
**Description:** UN1350, Sulphur, 4.1, III

**IMDG**

**UN number** UN1350  
**Proper shipping name** Sulphur  
**Transport hazard class(es)** 4.1  
**Packing group** III  
**EmS-No** F-A, S-G  
**Special Provisions** 242, 967  
**Marine pollutant** NP1  
**Description** UN1350, Sulphur, 4.1, III

**RID**

**UN number** UN1350  
**Proper Shipping Name:** Sulphur  
**Transport hazard class(es)** 4.1  
**Packing group** III  
**Classification code** F3  
**Special Provisions** 242  
**Description:** UN1350, Sulphur, 4.1, III  
**Labels** 4.1

**ADR**

**UN number** 1350  
**Proper Shipping Name:** Sulphur  
**Transport hazard class(es)** 4.1  
**Packing group** III  
**Classification code** F3  
**Tunnel restriction code** (E)  
**Special Provisions** 242  
**Description:** 1350, Sulphur, 4.1, III, (E)

Labels 4.1

**ADN**

UN/ID No	UN1350
Proper shipping name	Sulphur
Transport hazard class(es)	4.1
Packing Group	III
Classification code	F3
Special Provisions	242
Description	UN1350, Sulphur, 4.1, III
Hazard label(s)	4.1
Limited quantity (LQ)	5 kg
Equipment Requirements	PP

**15. Regulatory information**

**International Inventories**

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	This product complies with ENCS:
IECSC	This product complies with China:
KECL	Complies
PICCS	Complies
AICS	All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations**



**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Sulfur, sublimed 7704-34-9	1757	Present	Present

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**16. Other information****NFPA**

**Health hazards** 2

**Flammability** 1

**Instability** 0

**Physical and chemical properties** -

**HMIS**

**Health hazards** 2

**Flammability** 1

**Physical hazards** 0

**Personal protection** X

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGl(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

**Revision date** 14-March-2022

**Revision Note** No information available.

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information**

relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**