

# Safety Data Sheet


according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: April 26, 2021

## 1 Identification

- **Product identifier**
- **Trade name:** Sulfur Flowers
- **Product code:** S25596
- **CAS Number:**  
7704-34-9
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
AquaPhoenix Scientific, Inc.  
860 Gitts Run Road  
Hanover, PA 17331 USA  
Tel +1 (717)632-1291  
Toll-Free: (866)632-1291  
info@aquaphoenixsci.com
- **Distributor:**  
Fisher Science Education  
6771 Silver Crest Road,  
Nazareth, PA 18064  
(800) 955-1177
- **Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924 (North America)  
+1 (813)248-0585 (International)

## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
Skin Irrit. 2            H315 Causes skin irritation.  
Combustible Dust            May form combustible dust concentrations in air.
- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**  
  
GHS07
- **Signal word:** Warning
- **Hazard statements:**  
H315 Causes skin irritation.  
May form combustible dust concentrations in air.
- **Precautionary statements:**  
P264            Wash thoroughly after handling.  
P280            Wear protective gloves and eye protection.

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P302+P352 If on skin: Wash with plenty of soap and water.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

## 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**  
7704-34-9 Sulfur

## 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Brush off loose particles from skin.  
Wash with soap and water.  
If skin irritation continues, consult a doctor.
- **After eye contact:**  
Remove contact lenses if worn.  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:**  
Irritant to skin and mucous membranes.  
Gastric or intestinal disorders when ingested.
- **Danger:** No relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**  
If medical advice is needed, have product container or label at hand.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No relevant information available.
- **Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.  
May form combustible dust concentrations in air.
- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.

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## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation.  
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.
- **Environmental precautions** No special measures required.
- **Methods and material for containment and cleaning up**  
Sweep up and place into an appropriate container.  
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling**
- **Precautions for safe handling:** Use only in well ventilated areas.
- **Information about protection against explosions and fires:**  
May form combustible dust concentrations in air.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.  
Store away from oxidizing agents.
- **Further information about storage conditions:**  
Keep containers tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No relevant information available.

## 8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Exposure controls**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Engineering controls:** Provide adequate ventilation.
- **Breathing equipment:** In case of inadequate ventilation wear respiratory protection.

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· **Protection of hands:**



Protective gloves

· **Material of gloves**

Nitrile rubber, NBR

Neoprene gloves

Butyl rubber, BR

Natural rubber, NR

Sensibilization by the components in the glove materials is possible.

· **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

· **Body protection:** Protective work clothing

· **Limitation and supervision of exposure into the environment**

No relevant information available.

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **Appearance:**

Form: Powder

Color: Yellow

· **Odor:** Sulphurous

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Melting point/Melting range:** 119 °C (246.2 °F)

· **Boiling point/Boiling range:** 445 °C (833 °F)

· **Flash point:** 168 °C (334.4 °F)  
The product is not flammable.

· **Flammability (solid, gaseous):** Product is not flammable.

· **Auto-ignition temperature:** 260 °C (500 °F)

· **Decomposition temperature:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits**

Lower: Not determined.

Upper: Not determined.

· **Oxidizing properties:** Non-oxidizing.

· **Vapor pressure:** Not determined.

· **Density at 20 °C (68 °F):** 1.8-2.06 g/cm<sup>3</sup> (15.02-17.19 lbs/gal)

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- |   |                                    |
|---|------------------------------------|
| · <b>Relative density:</b>                        | Not determined.                    |
| · <b>Vapor density:</b>                           | Not applicable.                    |
| · <b>Evaporation rate:</b>                        | Not applicable.                    |
| · <b>Solubility in / Miscibility with Water:</b>  | Not miscible or difficult to mix.  |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                    |
| · <b>Viscosity</b>                                |                                    |
| <b>Dynamic:</b>                                   | Not applicable.                    |
| <b>Kinematic:</b>                                 | Not applicable.                    |
| · <b>Other information</b>                        | No relevant information available. |

## 10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**  
Reacts with strong oxidizing agents.  
Toxic fumes may be released if heated above the decomposition point.  
May form combustible dust concentrations in air.
- **Conditions to avoid** No relevant information available.
- **Incompatible materials**  
Oxidizing agents.  
Oxidizers
- **Hazardous decomposition products**  
Under fire conditions only:  
Sulfur oxides (SO<sub>x</sub>)

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

### LD/LC50 values that are relevant for classification:

#### 7704-34-9 Sulfur

Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
Inhalative	LC50/4h	>5430 mg/m <sup>3</sup> (rat)

- **Primary irritant effect:**
- **On the skin:** Irritant to skin and mucous membranes.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

### IARC (International Agency for Research on Cancer):

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Substance is not listed.

· **NTP (National Toxicology Program):**

Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

Substance is not listed.

· **Probable route(s) of exposure:**

Ingestion.

Inhalation.

Eye contact.

Skin contact.

· **Acute effects (acute toxicity, irritation and corrosivity):** Irritating to skin.

· **Repeated dose toxicity:** No relevant information available.

· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

· **Carcinogenicity:** Based on available data, the classification criteria are not met.

· **Reproductive toxicity:** Based on available data, the classification criteria are not met.

· **STOT-single exposure:** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

· **Aspiration hazard:** Based on available data, the classification criteria are not met.

## 12 Ecological information

· **Toxicity**

· **Aquatic toxicity** No relevant information available.

· **Persistence and degradability** No relevant information available.

· **Bioaccumulative potential:** No relevant information available.

· **Mobility in soil:** No relevant information available.

· **Additional ecological information**

· **General notes:** Generally not hazardous for water.

· **Other adverse effects** No relevant information available.

## 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

· **Uncleaned packagings**

· **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

· **UN-Number**

· **DOT, ADR/RID/ADN, IMDG, IATA**

Not regulated.

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- |  |                 |
|--|-----------------|
| · <b>UN proper shipping name</b>   |                 |
| · DOT, IMDG, IATA  | Not regulated.  |
| · ADR/RID/ADN  | Not regulated.  |
| · <b>Transport hazard class(es)</b>  |                 |
| · DOT, ADR/RID/ADN, IMDG, IATA   |                 |
| · Class  | Not regulated.  |
| · <b>Packing group</b>   |                 |
| · DOT, ADR/RID/ADN, IMDG, IATA   | Not regulated.  |
| · <b>Environmental hazards</b>   | Not applicable. |
| · <b>Special precautions for user</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

### · Section 302 (extremely hazardous substances):

Substance is not listed.

### · Section 313 (Specific toxic chemical listings):

Substance is not listed.

### · TSCA (Toxic Substances Control Act)

All ingredients are listed or exempt.

### · Proposition 65 (California)

#### · Chemicals known to cause cancer:

Substance is not listed.

#### · Chemicals known to cause developmental toxicity for females:

Substance is not listed.

#### · Chemicals known to cause developmental toxicity for males:

Substance is not listed.

#### · Chemicals known to cause developmental toxicity:

Substance is not listed.

#### · EPA (Environmental Protection Agency):

Substance is not listed.

#### · IARC (International Agency for Research on Cancer):

Substance is not listed.

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**Canadian Domestic Substances List (DSL):**

Substance is not listed.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
OSHA: Occupational Safety & Health Administration  
Skin Irrit. 2: Skin corrosion/irritation – Category 2

**Sources**

Website, European Chemicals Agency ([echa.europa.eu](http://echa.europa.eu))  
Website, US EPA Substance Registry Services ([ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do))  
Website, Chemical Abstracts Registry, American Chemical Society ([www.cas.org](http://www.cas.org))  
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6  
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.  
Safety Data Sheets, Individual Manufacturers