

Material Safety Data Sheet (MSDS) – Sulphur

1. Product and Company Identification

Product Name: Sulphur (Sulfur)

Chemical Name: Sulfur

Chemical Formula: S

CAS Number: 7704-34-9

Use: Fertilizer production, chemical manufacturing, rubber vulcanization, etc.

Supplier: ATDMCO

Location: Dubai, UAE

2. Hazard Identification

GHS Classification:

- Flammable solids (Category 2)
- Skin irritation (Category 2)
- Eye irritation (Category 2B)

Label Elements:

Warning

- Flammable solid
- Causes skin and eye irritation
- May cause respiratory irritation

Hazard Statements:

- H228: Flammable solid
- H315: Causes skin irritation
- H319: Causes serious eye irritation
- H335: May cause respiratory irritation

Precautionary Statements:

- P210: Keep away from heat/sparks/open flames/hot surfaces.
- P261: Avoid breathing dust/fumes.
- P280: Wear protective gloves/eye protection.
- P305+P351+P338: If in eyes, rinse cautiously with water for several minutes.

3. Composition / Information on Ingredients

Component CAS No. Weight %

Sulphur 7704-34-9 >99.5%

4. First Aid Measures

Inhalation:

Move to fresh air. If breathing is difficult, give oxygen. Seek medical attention.

Skin Contact:

Wash thoroughly with soap and water. Remove contaminated clothing. Seek medical help if irritation develops.

Eye Contact:

Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present. Seek medical attention if irritation persists.

Ingestion:

Rinse mouth. Do **not** induce vomiting. Get medical attention immediately.

5. Fire-Fighting Measures

Flammability: Flammable in powdered form.

Suitable Extinguishing Media: Dry chemical, CO₂, foam. Do not use water directly on the burning substance.

Special Hazards:

- Sulphur burns with a blue flame and produces **toxic sulfur dioxide (SO₂)** gas.
- Dust may form explosive mixtures in air.

Firefighter Protection:

Wear self-contained breathing apparatus (SCBA) and full protective clothing.

6. Accidental Release Measures

- Avoid generating dust.
- Eliminate all ignition sources.
- Use non-sparking tools and explosion-proof equipment.

- Collect spillage mechanically and place in properly labeled containers.
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7. Handling and Storage

Handling:

- Avoid dust formation.
- Ground equipment to prevent static discharge.
- Use adequate ventilation.

Storage:

- Store in a cool, dry, well-ventilated area away from heat and flame.
 - Keep container tightly closed.
 - Avoid contact with oxidizing agents.
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8. Exposure Controls / Personal Protection

Exposure Limits:

- OSHA PEL: Not established
- ACGIH TLV: 10 mg/m³ (inhalable particles)

Engineering Controls:

Use local exhaust ventilation to control dust.

Personal Protective Equipment:

- **Eyes:** Safety goggles
 - **Skin:** Chemical-resistant gloves
 - **Respiratory:** NIOSH-approved mask for dust if ventilation is inadequate
 - **Clothing:** Flame-resistant protective clothing
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9. Physical and Chemical Properties

Property	Value
Appearance	Yellow solid (powder/lumps)

Property	Value
Odor	Odorless or faint sulfur odor
Melting Point	~115 °C
Boiling Point	~445 °C
Flash Point	207 °C (closed cup)
Solubility in Water	Insoluble
Specific Gravity	~2.07
Flammability	Flammable

10. Stability and Reactivity

Stability: Stable under recommended conditions.

Hazardous Reactions:

- May react violently with oxidizers.

Hazardous Decomposition Products:

- Sulfur dioxide (SO₂), hydrogen sulfide (H₂S)
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11. Toxicological Information

- **Acute Toxicity:** Low toxicity
 - **Skin/Eye Irritation:** Can cause irritation
 - **Inhalation:** May cause respiratory discomfort
 - **Chronic Effects:** Long-term exposure to dust may lead to respiratory issues
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12. Ecological Information

- Not toxic to aquatic organisms in standard conditions
 - Avoid large discharges into the environment
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13. Disposal Considerations

- Dispose of in accordance with local, regional, and national regulations.
 - Do not dispose of with household waste.
 - Incineration is recommended in approved facilities.
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14. Transport Information

UN Number: 1350

Proper Shipping Name: Sulphur

Hazard Class: 4.1 (Flammable Solid)

Packing Group: III

Label Required: Flammable Solid

15. Regulatory Information

- **TSCA:** Listed
 - **REACH:** Registered
 - **GHS:** Classified
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16. Other Information

Prepared By: ATDMco

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