



LTS Research Laboratories, Inc.
Safety Data Sheet
Silicon Sulfide

1. Product and Company Identification

Trade Name: Silicon Sulfide
Chemical Formula: SiS₂
Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.
Street: 37 Ramland Road
City: Orangeburg
State: New York
Zip Code: 10962
Country: USA
Tel #: 855-587-2436 / 855-lts-chem

24-Hour Emergency Contact: 800-424-9300 (US & Canada)
+1-703-527-3887 (International)

2. Hazards Identification

Signal Word: Danger



Hazard Statements: H261: In contact with water releases flammable gas
H300: Fatal if swallowed
H315: Causes skin irritation
H319: Causes serious eye irritation
H335: May cause respiratory irritation

Precautionary Statements: P231+P232: Handle under inert gas. Protect from moisture
P261: Avoid breathing dust/fume/vapor
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P405: Store locked up
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):
Health: 2
Flammability: 2
Physical: 3

3. Composition

Chemical Family: Ceramic
Additional Names: Silicon Disulfide, Silicon (IV) sulfide

Silicon Sulfide (SiS₂):
Percentage: 100 wt%
CAS #: 13759-10-9
EC #: 237-344-8

4. First Aid Procedures

General Treatment: Immediately remove any clothing soiled by the product. In case of irregular breathing or respiratory arrest provide artificial respiration. Seek medical attention if symptoms persist.

Special Treatment: None
Important Symptoms: None

Inhalation: Remove victim to fresh air. Supply oxygen if breathing is difficult.
Ingestion: Give one to two glasses of water. Do not induce vomiting. Call for medical help.

Skin: Wash affected area with mild soap and water. Remove any contaminated clothing.

Eyes: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

5. Firefighting Measures

Flammability: Product is flammable

Extinguishing Media: Do not use water—use CO₂, sand, extinguishing powder.
Spec. Fire Fighting Procedure: Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

6. Accidental Release Measures

If Material Is Released/Spilled: Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust. Keep unprotected persons away.

Environmental Precautions: Do not allow material to be released to the environment without proper governmental permits.
Do not allow product to reach sewage system or any water course.
Do not allow to penetrate the ground/soil.
Isolate runoff to prevent environmental pollution.

7. Handling and Storage

Handling Conditions: Wash thoroughly after handling. Handle under inert gas. Protect from humidity and water.

Storage Conditions: Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in section 10.

Work/Hygienic Maintenance: Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

Ventilation: Provide sufficient ventilation to maintain concentration at or below threshold limit.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits:	N/A
Threshold Limit Value:	N/A
Special Equipment:	None
Respiratory Protection:	Dust Respirator
Protective Gloves:	Impervious gloves
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	White
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odor like rotten eggs
Water Solubility:	Insoluble
Boiling Point:	N/A
Melting Point:	1090 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	2.02 g/cc
Molecular weight:	92.218 g/mol

10. Reactivity

Stability:	Contacts with acids liberates toxic gas. Stable under recommended storage conditions.
Reacts With:	Acids - Forms toxic gas.
Incompatible Conditions:	Oxidizing agents Acids
Hazardous Decomposition Products:	Hydrogen Sulfide Sulfur oxides (SO _x) Silicon Oxide Metal oxide fume

11. Toxicological Information

Potential Health Effects:	
Eyes:	Causes serious eye irritation
Skin:	Causes skin irritation
Ingestion:	Fatal if swallowed.
Inhalation:	May cause irritation
Chronic:	Inorganic silicon compounds may be acute inhalation irritants. Prolonged inhalation may cause pulmonary fibrosis known as silicosis.
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	N/A
Carcinogen:	No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12. Ecological Information

Aquatic Toxicity:	N/A
Persistent Bioaccumulation Toxicity:	N/A

Very Persistent, Very Bioaccumulative: N/A
Notes: Do not allow material to be released to the environment without proper governmental permits.
Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.
Avoid transfer into the environment.

13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations.

14. Transportation Data

Hazardous: Hazardous for transportation



Hazard Class: 4.3 Substances which, in contact with water, emit flammable gases.
Secondary Class: 6.1 Toxic Substances
Packing Group: II
UN Number: UN3134
Proper Shipping Name: Water-reactive solid, toxic, n.o.s. (Silicon (IV) sulfide)

15. Regulatory Information

Sec 302 Extremely Hazardous: N/A
Sec 304 Reportable Quantities: N/A
Sec 313 Toxic Chemicals: N/A

16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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