



Bushehr Petrochemical Company Safety Data Sheets

Section 1: Identification

Product Name: Sulfure
Chemical Name/Synonyms: Sulfure powder, Sulfure solid
CAS-No: 7704-34-9
Company: BUPC (Bushehr Petrochemical Company)

Section 2: Hazard(s) Identification

2.1 GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

H315, Skin Irrit. 2 (99.83%)

2.2 Precautionary Statement Codes:

P220, P244, P282, P336+P317, P370+P376, P403, and P410+P403

The corresponding statement to each P-code can be found at the GHS Classification.

2.3 GHS Label Elements Labelling:



2.4 Hazard Diamond:

Health :2

Flammability:1

Physical Hazard:0

Specefic Hazard : -

2.5 Other Hazards:



Section 3: Composition/information on ingredients

3.1 Substance

Formula : S

Molar Mass : 32.07 g/mol

3.2 Mixture

N.A

Section 4: First-Aid Measures

4 Description of First Aid Measures

4.1 After Inhalation :

Fresh air, rest. Half-upright position. Refer for medical attention.

4.2 In case of Skin contact :

Remove contaminated clothes. Rinse and then wash skin with water and soap.

4.3 After Eye contact:

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

4.4 After Swallowing:

Rinse mouth. Refer for medical attention .

Section 5: Fire-Fighting Measures

5.1 Extinguishing media:

Use water spray, foam, powder, dry sand.

5.2 Special hazards arising from the substance or mixture:

Combustion by-products may include sulfur dioxide gas.

5.3 Advice for firefighters:

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Other data

Stable under recommended storage conditions.

Preparations containing sulfur may react with metals including silver and copper, resulting in discoloration of the metal.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames) from immediate area.

Do not touch or walk through spilled material.

With clean shovel, place material into clean, dry container and cover loosely; move containers from spill area.

Wet down with water and dike for later disposal.

6.2 Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities

Fireproof. Separated from strong oxidants.

Store in cool, dry, well-ventilated location. Separate from chlorates, nitrates, other oxidizing materials, and hydrocarbons.

Store away from sparks, fire, flames. Isolate from oxidizing materials.

Sulfur dust suspended in air ignites easily. Keep away from heat, sparks, and flame.

Section 8: Exposure Controls/Personal Protection

8.1 Exposure parameters

Chemical Name	TLV	Celling	TWA	STEL	IDLH
Sulfur	*	*	*	*	*

8.2 General protective and hygienic measures:

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas.

Wear positive pressure self-contained breathing apparatus (SCBA).

Structural firefighters' protective clothing provides thermal protection but only limited chemical protection.

8.3 Breathing equipment:

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.4 Protection of hands:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

8.5 Eye protection:

Where eye contact is likely, use dust-proof chemical goggles.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Form: Dry Powder

Odor: Pale yellow crystals or powder with faint odor of rotten eggs.

Odor threshold: No data available.

PH: No data available.

Melting point/melting range: 95.3 °C

Boiling point/boiling range: 445 °C

Flash point: 160 °C , 207 °C (Closed cup)

Evaporation rate: No data available.

Flammability: Lower flammable.

Upper flammability or explosive limits: No data available.

lower flammability or explosive limits: No data available.

Autoignition temperature: 232 °C

Danger of explosion: No data available.

Vapor pressure: Vapor pressure, kPa at -118 °C: 5080

Vapor density: Density of vapor/density of air, 470 °C: 7.837

Relative density: No data available.

Solubility in/Miscibility with water: Insoluble in water; slightly soluble in ethanol, benzene, ethyl ether; soluble in carbon disulfide.

9.2 Other data

Section 10: Stability and Reactivity

10.1 Reactivity:

Reacts with oxidizing materials.

10.2 Chemical stability:

Stable under recommended storage conditions.

10.3 Conditions to avoid:

Avoid moisture. Heat, flames and sparks.

10.4 Incompatible materials:

Strong oxidizing agents Amines, Bases.

10.5 Hazardous decomposition products:

Hazardous decomposition products formed under fire conditions. - Sulphur oxides.

Section 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity:

Respiratory failure as.

Eye: Redness, Pain, Blurred vision.

Inhalation: Burning sensation. Cough. Sore throat.

Ingestion: Burning sensation. Diarrhoea.

Skin: Redness.

Carcinogenic effects: N.A

Reproductive toxicity: N.A

Target organs: Respiratory System

11.2 Further information:

Section 12: Ecological Information

12.1 Toxicity

LC50 (mammals) = 1660 mg/m³

LD50 Rabbit dermal >2000 mg/kg

LC50 Hamster inhalation >0.047 mg/L 4 hr

LC50 Mouse inhalation >0.047 mg/L 4 hr

LC50 Rat inhalation >0.047 mg/L 4 hr

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

Section 13: Disposal Considerations

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting.

Environmental considerations: Water spill: Use natural barriers or oil spill control booms to limit spill travel. Use natural deep water pockets, excavated lagoons, or sand bag barriers to trap material at bottom. Remove trapped material with suction hoses.

The most favorable course of action is to use an alternative chemical product with less inherent propensity for occupational harm/injury/toxicity or environmental contamination. Recycle any unused portion of the material for its approved use or return it to the manufacturer or supplier. Ultimate disposal of the chemical must consider: the material's impact on air quality; potential migration in soil or water; effects on animal and plant life; and conformance with environmental and public health regulations.

Section 14: Transport Information

14.1 DOT regulations:

UN Number : 1350

Proper Shipping Name: Sulfur

Class or Division: 9

Hazard class: UN Hazard Class: 9

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Skin irritation.

15.2 Chemical Safety Assessment

Dust explosion possible if in powder or granular form, mixed with air. If dry, it can be charged electrostatically by swirling, pneumatic transport, pouring, etc.

Section 16: Other Information

Methods of Dissemination:

Grinding, Dust

Toxic Combustion Products:

N.A

Other Hazardous Reactions:

Grinding of sulfur involves high degree of explosive hazard.

The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood).