



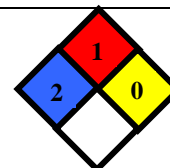
# MATERIAL SAFETY DATA SHEET



## SULPHUR

### Section 1 – Chemical Product and Company Identification

Chemical Name : Sulphur  
Chemical Formula : S8  
CAS Number : 7704-34-9  
Synonyms : Brimostone, Bensulfoid, Colsul  
General Use : Production of inorganic compounds, acids



NFPA 704 (Sec 16)

Manufacturer's Name : Bharat Petroleum Corporation Limited  
Address : Refinery, Mahul, Chembur, Mumbai 400074  
Telephone Number for Info : 25533888 / 25533999 / 25524888 / 25524999  
MSDS No. :  
Date Prepared : June 2020  
Revision : 2

### Section 2 – Composition / Information on Ingredients

Composition : Sulphur, H<sub>2</sub>S  
Hazardous Components : Hydrogen Sulphide  
ACGIH TLV : H<sub>2</sub>S - 10 ppm

### Section 3 – Hazards Identification

Primary Entry Routes : Inhalation, skin and eyes  
Acute Effects : When the product is handled in liquid conditions it would be hot hence skin burns are the most likely health hazard. Product vapours may contain H<sub>2</sub>S or SO<sub>x</sub> and hence casualties due to its exposure should be removed immediately to fresh air and medical attention sought. Sulphur dust can irritate respiratory system  
Carcinogenicity : Not listed as carcinogenic  
Chronic Effects : No data available

### Section 4 – First Aid Measures

Eyes : Flush with water for 15 min. Get medical attention.  
Skin : In case of accidental contact with skin, treat for burns  
Inhalation : Product vapours may contain H<sub>2</sub>S and hence casualties due to its exposure should be removed immediately to fresh air Consult a physician if irritation persists.

### Section 5 – Fire Fighting Measures

Flash Point : > 207 °C  
Flash Point Method : Cleveland Open Cup  
Auto ignition Temperature : 230 °C  
LEL : Data not available

UEL :	Data not available
Flammability Classification :	Not Flammable
Extinguishing Media :	Water
Unusual Fire or Explosion Hazards :	Burns with a blue flame and difficult to see in day light. Heat produces corrosive vapours, SO <sub>x</sub> and H <sub>2</sub> S. Sulphur dust can explode due to friction, static electricity, heat or flame.
Hazardous Combustion Products :	SO <sub>x</sub> , H <sub>2</sub> S
Fire-Fighting Instructions :	Fire fighters should wear self breathing apparatus while fighting fire. Use water fog and not solid stream of water as it might generate dust and can explode in confined space. Fire will rekindle until brought below 154 °C.

### Section 6 – Accidental Release Measures

Small Spills :	Shut off leaks without risk. Sweep and collect without creating dust. Sulphur dust can explode.
Containment :	Prevent spillage from entering drains or water sources
Cleanup :	Sweep and collect. After spills wash area with plenty of water.

### Section 7 – Handling and Storage

Handling Precautions :	Do not use/store near heat/open flame. Avoid breathing harmful vapors. As the product in liquid form is mostly handled in hot conditions (>100 °C) skin burns are the most likely health hazard. Avoid contact with skin and eyes. Wash thoroughly after handling
Storage Requirements :	Do not use/store near heat/open flame/water/acids

### Section 8 – Exposure Controls / Personal Protection

Engineering Controls :	Provide proper ventilation for environment to be below TWA. Avoid conditions that can create dust.
Respiratory Protection :	Use respiratory protection if ventilation is improper
Protective Clothing / Equipment :	Use face shield, PVC gloves, safety boots while handling. Contaminated clothing to be immediately removed

### Section 9 – Protection Physical and Chemical Properties

Physical State :	Solid, but also handled in liquid state
Appearance and Odor :	Yellow.
Vapor Pressure :	1 mm Hg at 183.8 °C
Specific Gravity :	2.07
Water Solubility :	Insoluble
Boiling Point :	444.6 °C
Melting Point :	106.8 °C
Vapour density :	Not pertinent

### Section 10 – Stability and Reactivity

Stability :	Chemically stable.
Chemical Incompatibilities :	Incompatible with oxidizing agents, charcoal, halogens and ammonia compounds.

Conditions to Avoid :	Does not react with common materials but may react with oxidising agents. Damp sulphur will corrode steel
Hazardous Decomposition Products :	H <sub>2</sub> S, SO <sub>x</sub>

### **Section 11 – Toxicological Information**

Toxicity Data :	LD50 Rats oral = >5050 mg/kg
Acute Inhalation Effects :	No data available

### **Section 12 – Ecological Information**

Prevent spillage from entering drains or water sources. After spills wash area with soap and water preventing runoff from entering drains. Can burn producing H<sub>2</sub>S and SO<sub>x</sub>

### **Section 13 – Disposal Considerations**

Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations

### **Section 14 – Transport Information**

Shipping Name :	Sulphur
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### **Section 15 – Regulatory Information**

Non - Toxic/Flammable Substance

### **Section 16 – Other Information**

Prepared by : Process Safety Section, BPCL- Mumbai Refinery

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