



辽阳光华化工有限公司

Liaoyang Guanghua Chemical Co.,Ltd  
No. 168-19 Qingnian Street, Liaoyang, Liaoning, 111000, China

## Material Safety Data Sheet

### Part 1 Chemical and company's information

Name of Chemical: SULFOLANE

Synonyms: Tetramethylene Sulfone; Sulfolane Anhydrous; Tetrahydrothiophene 1,1-dioxide

Molecular formula: C<sub>4</sub>H<sub>8</sub>O<sub>2</sub>S

Molecular weight: 120.17

Name of company: Liaoyang Guanghua Chemical Co., Ltd

Address: No.168-19 Qingnian Street, Liaoyang, Liaoning, China

Postal Code: 111000

Code of MSDS: GH-D-027

Revision No. 7

Revision Date: Jan.1st, 2013

Tel: 0086-419-2313380/381/382

Fax: 0086-419-2313289

### Part 2 Ingredients/Identity Information

Pure product (  ) Mixture (  )

Name of Chemical: SULFOLANE CAS NO.: 126-33-0

EINECS# 204-783-1

Hazard Symbols: XN

Risk Phrases: 22

Harmful ingredient: Sulfur Dioxide concentration: ≤ 20mg/Kg

### Part 3 Description of Dangerous Nature

**Type of dangerous nature:** sulfolane is not dangerous product

**Invading way:** by breathing, by eating, by skin

**Harm to health:** can slightly hurt one's eye, symptom is: with tears and small quantity of blood; can slightly hurt one's skin, symptom is: the skin is burnt or appear small red point. According to Chinese standard, Swallowing small quantity of this material is not harmful, but big quantity is harmful. Steam of this material could be breathed into one's body, but small quantity is not harmful and big quantity is harmful.

**Harm to Environment:** No data

**Danger of burning and explosion :** Flame of welding and cutting may cause danger of burning and explosion.

### Part 4 Emergency Treatment Measures



# 辽阳光华化工有限公司

**Liaoyang Guanghua Chemical Co.,Ltd**  
No. 168-19 Qingnian Street, Liaoyang, Liaoning, 111000, China

---

**Skin:** Flush skin with soap and clean water. Flush skin for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

**Eyes:** Flush with circulating water or physiological saline. Flush eyes for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

## Part 5 Fire Prevention Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Containers may explode in the heat of a fire.

**Characteristics of danger:** it can burn with fire or high temperature.

**Method of extinguish a fire and material to be used:** can use water, CO<sub>2</sub>, dried vermicelli, foam or sand. Cool containers with flooding quantities of water until well after fire is out.

## Part 6 Emergency Treatment of leakage

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Scoop up with a nonsparking tool, then place into a suitable container for disposal.

**Big quantity:** remove all fire source, close the leakage source and try to recover.

## Part 7 Operation and Storage

**Points for attention in operations:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Assure enough ventilated in order to decrease the pollution to environment.

**Points for attention in storage:** store in cool, dry and well ventilated warehouse and be far away from fire source. There should be equipment for emergency treatment of leakage and suitable recovering material.

## Part 8 Contact control/Personal Protection

**Maximum permitted concentration:** No data

**Monitoring Method:** Chemical Analysis

**Process Control:** Close the manufacturing equipment, ventilate the surrounding environment.

**Breathe system protection:** Put on self-sufficient respirator in the high concentration environment.

**Eye protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin protection:** Wear appropriate protective gloves and clothing to prevent skin exposure.



**Clothing:** Wear appropriate protective clothing to minimize contact with skin.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Other protection:** No smoking, eating, drinking on the work site. Avoid having alcoholic drink before working. Taking shower and change cloths after working. Make body examination before job and periodically.

## Part 9 Physical /Chemical Characteristics

Appearance: colorless to straw transparent liquid

Melting Point: 27.6℃

Boiling Point: 285℃

Relative density(30℃,water=1): 1270Kg/m<sup>3</sup>

Relative steam density(air=1): 4.200

Saturated steam pressure(kPa): No data

Combustion heat(KJ/mol): No data

Critical temperature(℃): No data

Critical pressure(Mpa): No data

Caprylic acid /water allocation comparative coefficient : No data

Flash point: 170℃

Upper limit of explosion% (V/V): No data

Temperature for burning(℃): No data

Lower limit of explosion% (V/V): No data

**Dissolving characteristics:** Sulfolane is high polarity solvent, which has excellent chemical characteristics and stability. It can dissolve in water and it is excellent solvent for most kinds of organic chemical compound and many common polymer.

**Main applications:**

1. Sulfolane has high dissolving property and selectivity, so it is suitable for petrochemical industry. It is widely used as excellent solvent for aromatic extraction and removing sulphur from natural gas.
2. Sulfolane is a multi-effective solvent with high purity and high boiling point, so it is suitable for chemical industry. This solvent can be used for the halogenate, methylation, organic synthesis, condensation and polymerization reaction in the field of pharmaceutical chemicals, agricultural chemicals, dyestuff, perfume, special industrial plastic and some other chemicals.

## Part 10: Stability and Reaction Activity

**Stability :** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, strong oxidants.

**Incompatibilities with Other Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide, oxides of sulfur, irritating and toxic fumes and gases, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

## Part 11 Toxicology Information

**Acute Toxicity:** It is low toxicity product, Poisonousness going acutely through the mouth of big mouse is:

LD<sub>50</sub>>1900mg/Kg

RTECS#:



# 辽阳光华化工有限公司

**Liaoyang Guanghua Chemical Co.,Ltd**  
No. 168-19 Qingnian Street, Liaoyang, Liaoning, 111000, China

---

CAS# 126-33-0: XN0700000

LD50/LC50: CAS# 126-33-0: Draize test, rabbit, eye: 253 mg Mild; Oral, mouse:

LD50 = 1900 mg/kg; Oral, rat: LD50 = 1540 uL/kg; Skin, rabbit: LD50 = 3180 uL/kg; Skin, rat: LD50 = >3800 mg/kg.

Carcinogenicity: Sulfolane -Not listed by ACGIH, IARC, or NTP.

Other: See actual entry in RTECS for complete information.

## Part 12 Ecological information

**Ecotoxicity:** Chemical is stable and does not have any hydrolyzable functional groups.

## Part 13 Disposal Considerations

**Characteristics of abandoned material:** No Data

**Abandoned material treatment method:** Products which are considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated before returning for recycling.

## Part 14 Transportation Information

**US DOT** Not regulated as a hazardous material.

**IATA** Not regulated as a hazardous material.

**IMO** Not regulated as a hazardous material.

**RID/ADR** Not regulated as a hazardous material.

**Additional Information:** This material is regulated when shipped by AIR.

## Part 15 Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases: R 22 Harmful if swallowed.

Safety Phrases: S 25 Avoid contact with eyes.

WGK (Water Danger/Protection)

### LISTINGS E.G. CHEMICAL INVENTORIES

**Type :** EINECS

**Additional information :**

**Type :** TSCA

**Additional information :** EPA TSCA Test submission (TSCATS) database, December 1999

**Type :** DSL

**Additional information :** Canadian Inventory

**Type :** AICS



# 辽阳光华化工有限公司

**Liaoyang Guanghua Chemical Co.,Ltd**  
No. 168-19 Qingnian Street, Liaoyang, Liaoning , 111000, China

**Additional information :** Australian Inventory

**Type :** ECL

**Additional information :** Korean Inventory of Chemicals

**Type :** ENCS

**Additional information :** Japanese Inventory

**Type :** CHINA

**Additional information :** Inventory of Existing Chemical Substances in China

**Type :** PICCS

**Additional information :** Philippine Inventory

**Type :** other: DENMARK

**Additional information :** The Danish Product Register

**Type :** other: SWEDEN

**Additional information :** The Swedish Product Register

## **Part 16 Other Information**

**NFPA RATINGS:** Health: 2 Flammability: 1 Reactivity: 0 Special: NA

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA).

**This MSDS is made according to Chinese Safe Technical instruction book of Chemicals No.2034**

**This MSDS is made according to The Safety Regulations of Chemical Hazardous Material(by The State Council of the People's Republic of China /Feb.17,1987)**

**This MSDS is made according to The Execution of The Safety Regulations of Chemical Hazardous Material(by Chemical Labor Bureau of the People's Republic of China No.677/1992**

**This MSDS is made according to The Regulations of Safe Using Chemicals at workplace( by Labor Bureau of the People's Republic of China No.423/1996) and so on**

**Some information is sourced from Relevant Internet**

**The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.**