

# SAFETY DATA SHEET

Creation Date 21-Feb-2012

Revision Date 21-Dec-2025

Revision Number 6

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

**Product Name** Sulfolane

**Cat No. :** A13466

**CAS No** 126-33-0  
**Synonyms** Sulfolane; Tetrahydrothiophene 1,1-dioxide

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Food, drug, pesticide or biocidal product use.

### Details of the supplier of the safety data sheet

#### Company

Thermo Fisher Scientific Chemicals, Inc.  
30 Bond Street  
Ward Hill, MA 01835-8099  
Tel: 800-343-0660  
Fax: 800-322-4757

#### **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

## 2. Hazard(s) identification

### Classification

This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

|                       |             |
|-----------------------|-------------|
| Acute oral toxicity   | Category 4  |
| Reproductive Toxicity | Category 1B |

### Label Elements

#### **Signal Word**

Danger

#### **Hazard Statements**

Harmful if swallowed  
May damage fertility or the unborn child

**Precautionary Statements****Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Wear protective gloves/protective clothing/eye protection/face protection

**Response**

IF exposed or concerned: Get medical attention/advice

**Ingestion**

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
Rinse mouth

**Storage**

Store locked up

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

None identified

**Hazards classified under paragraph (d)(1)(ii) of 1910.1200**

No information available

### 3. Composition/information on Ingredients

| Component              | CAS No   | Weight % |
|------------------------|----------|----------|
| Tetramethylene sulfone | 126-33-0 | <=100    |

### 4. First-aid measures

|                                            |                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye Contact</b>                         | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.                                                                                                                                                                                              |
| <b>Skin Contact</b>                        | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.                                                                                                                                                                                                  |
| <b>Inhalation</b>                          | Remove to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention. If not breathing, give artificial respiration. |
| <b>Ingestion</b>                           | Do NOT induce vomiting. Call a physician or poison control center immediately.                                                                                                                                                                                                                               |
| <b>Most important symptoms and effects</b> | No information available.                                                                                                                                                                                                                                                                                    |
| <b>Notes to Physician</b>                  | Treat symptomatically                                                                                                                                                                                                                                                                                        |

### 5. Fire-fighting measures

|                                         |                                                                                       |
|-----------------------------------------|---------------------------------------------------------------------------------------|
| <b>Suitable Extinguishing Media</b>     | Water spray, carbon dioxide (CO <sub>2</sub> ), dry chemical, alcohol-resistant foam. |
| <b>Unsuitable Extinguishing Media</b>   | No information available                                                              |
| <b>Flash Point</b>                      | 165 °C / 329 °F                                                                       |
| <b>Method -</b>                         | No information available                                                              |
| <b>Autoignition Temperature</b>         | 528 °C / 982.4 °F                                                                     |
| <b>Explosion Limits</b>                 |                                                                                       |
| <b>Upper</b>                            | No data available                                                                     |
| <b>Lower</b>                            | No data available                                                                     |
| <b>Sensitivity to Mechanical Impact</b> | No information available                                                              |
| <b>Sensitivity to Static Discharge</b>  | No information available                                                              |

**Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Sulfur oxides.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

**Health**  
2

**Flammability**  
1

**Instability**  
0

**Physical hazards**  
N/A

## 6. Accidental release measures

|                                  |                                                                                                                                                              |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal Precautions</b>      | Use personal protective equipment as required. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing.                                       |
| <b>Environmental Precautions</b> | Should not be released into the environment. See Section 12 for additional Ecological Information. Do not flush into surface water or sanitary sewer system. |

**Methods for Containment and Clean Up** Sweep up and shovel into suitable containers for disposal.

## 7. Handling and Storage

|                 |                                                                                                                                                             |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling</b> | Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. |
| <b>Storage.</b> | Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents. Strong reducing agents.           |

## 8. Exposure controls / personal protection

|                                      |                                                                                                                                                   |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Exposure Guidelines</b>           | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.     |
| <b>Engineering Measures</b>          | Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. |
| <b>Personal Protective Equipment</b> |                                                                                                                                                   |
| <b>Eye/face Protection</b>           | 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.                                                                                                                                                         |
| <b>Skin and body protection</b> | Wear appropriate protective gloves and clothing to prevent skin exposure.                                                                                                                                                                         |
| <b>Respiratory Protection</b>   | 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. |
| <b>Hygiene Measures</b>         | Handle in accordance with good industrial hygiene and safety practice.                                                                                                                                                                            |

## 9. Physical and chemical properties

### Appearance

#### **Physical State**

Low melting solid

#### **Color**

No information available

#### **Odor**

Characteristic

#### **Odor Threshold**

No information available

#### **Property**

##### Values

##### Remarks

##### • Method

#### **Melting Point/Range**

27.4 - 27.8 °C / 81.3 - 82 °F

#### **Softening Point**

No data available

#### **Boiling Point/Range**

285 - 288 °C / 545 - 550.4 °F

#### **Flash Point**

165 °C / 329 °F

**Method -** No information available

#### **Flammability (liquid)**

No data available

#### **Flammability (solid,gas)**

No information available

#### **Explosion Limits**

No data available

#### **Autoignition Temperature**

528 °C / 982.4 °F

#### **Decomposition Temperature**

220 °C

#### **pH**

No information available

#### **Viscosity**

10.34 mPa.s (20 °C)

#### **Water Solubility**

Soluble

#### **Solubility in other solvents**

No information available

#### **Partition Coefficient (n-octanol/water)**

#### **Component**

##### **log Pow**

Tetramethylene sulfone

<0

#### **Vapor Pressure**

0.035 hPa @ 30 °C

#### **Density / Specific Gravity**

1.260

#### **Bulk Density**

No data available

#### **Vapor Density**

No data available

(Air = 1.0)

#### **Particle characteristics**

No data available

### Other Information

#### **Molecular Formula**

C4 H8 O2 S

#### **Molecular Weight**

120.17

## 10. Stability and reactivity

|                                         |                                                                        |
|-----------------------------------------|------------------------------------------------------------------------|
| <b>Reactive Hazard</b>                  | None known, based on information available                             |
| <b>Stability</b>                        | Stable under normal conditions.                                        |
| <b>Conditions to Avoid</b>              | Temperatures above 220°C. Incompatible products.                       |
| <b>Incompatible Materials</b>           | Strong oxidizing agents, Strong reducing agents                        |
| <b>Hazardous Decomposition Products</b> | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Sulfur oxides |

**Hazardous Polymerization** No information available.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

### Information on expected route of exposure

**Inhalation** Not an expected route of exposure.  
**Ingestion** May be harmful if swallowed.  
**Eyes** Avoid contact with eyes.  
**Skin** Avoid contact with skin.

### Toxicology data for the components

| Component              | LD50 Oral                 | LD50 Dermal               | LC50 Inhalation            |
|------------------------|---------------------------|---------------------------|----------------------------|
| Tetramethylene sulfone | LD50 = 1941 mg/kg ( Rat ) | LD50 > 2000 mg/kg ( Rat ) | LC50 > 12 mg/L ( Rat ) 4 h |

**Toxicologically Synergistic Products** No information available

**(b) skin corrosion/irritation;** Based on available data, the classification criteria are not met

**(c) serious eye damage/irritation;** Based on available data, the classification criteria are not met

**(d) respiratory or skin sensitization;**  
**Respiratory** Based on available data, the classification criteria are not met  
**Skin** Based on available data, the classification criteria are not met

**(e) germ cell mutagenicity;** Based on available data, the classification criteria are not met  
 Not mutagenic in AMES Test

**(f) carcinogenicity;** Based on available data, the classification criteria are not met  
 The table below indicates whether each agency has listed any ingredient as a carcinogen

| Component              | CAS No   | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|------------------------|----------|------------|------------|------------|------------|------------|
| Tetramethylene sulfone | 126-33-0 | Not listed | Not listed | Not listed | Not listed | Not listed |

**(g) reproductive toxicity;** Category 1B

**(h) STOT-single exposure;** Based on available data, the classification criteria are not met

**(i) STOT-repeated exposure;** Based on available data, the classification criteria are not met  
**Target Organs** None known.

**(j) aspiration hazard;** Based on available data, the classification criteria are not met

**Symptoms / effects, both acute and delayed** No information available.

**Other Adverse Effects** The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties** This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

### Ecotoxicity

Do not empty into drains.

| Component              | Freshwater Algae                                            | Freshwater Fish                                   | Microtox   | Water Flea                                       |
|------------------------|-------------------------------------------------------------|---------------------------------------------------|------------|--------------------------------------------------|
| Tetramethylene sulfone | EC50: > 1000 mg/L, 96h<br>(Pseudokirchneriella subcapitata) | LC50: > 100 mg/L, 96h static<br>(Oryzias latipes) | Not listed | EC50 = 852 mg/L, 48h<br>(Daphnia magna) OECD 202 |

**Persistence and Degradability** Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its water solubility.

| Component              | log Pow |
|------------------------|---------|
| Tetramethylene sulfone | <0      |

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

|                  |               |
|------------------|---------------|
| <u>DOT</u>       | Not regulated |
| <u>TDG</u>       | Not regulated |
| <u>IATA</u>      | Not regulated |
| <u>IMDG/IIMO</u> | Not regulated |

## 15. Regulatory Information

### United States of America Inventory

| Component              | CAS No   | TSCA | TSCA Inventory notification -<br>Active-Inactive | TSCA - EPA Regulatory<br>Flags |
|------------------------|----------|------|--------------------------------------------------|--------------------------------|
| Tetramethylene sulfone | 126-33-0 | X    | ACTIVE                                           | -                              |

#### **Legend:**

**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

**TSCA 12(b)** - Notices of Export Not applicable

### International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component              | CAS No   | DSL | NDSL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL     |
|------------------------|----------|-----|------|-----------|-------|------|------|------|-------|----------|
| Tetramethylene sulfone | 126-33-0 | X   | -    | 204-783-1 | X     | X    | X    | X    | X     | KE-33510 |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

### U.S. Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)** Not applicable

**Clean Air Act** Not applicable

**OSHA - Occupational Safety and Health Administration** Not applicable

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

#### **U.S. State Right-to-Know Regulations**

| Component              | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|------------------------|---------------|------------|--------------|----------|--------------|
| Tetramethylene sulfone | X             | -          | X            | -        | -            |

#### **U.S. Department of Transportation**

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

#### **Other International Regulations**

**Mexico - Grade** No information available

**Authorisation/Restrictions according to EU REACH** Not applicable

| Component              | CAS No   | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|------------------------|----------|---------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Tetramethylene sulfone | 126-33-0 | -                                                                   | -                                                                             | -                                                                                                     |

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

| Component | CAS No | OECD HPV | Persistent Organic | Ozone Depletion | Restriction of |
|-----------|--------|----------|--------------------|-----------------|----------------|
|-----------|--------|----------|--------------------|-----------------|----------------|

|                        |          |        | Pollutant      | Potential      | Hazardous Substances (RoHS) |
|------------------------|----------|--------|----------------|----------------|-----------------------------|
| Tetramethylene sulfone | 126-33-0 | Listed | Not applicable | Not applicable | Not applicable              |

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

#### Other International Regulations

| Component              | CAS No   | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|------------------------|----------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------|------------------------------------|
| Tetramethylene sulfone | 126-33-0 | Not applicable                                                                            | Not applicable                                                                           | Not applicable             | Not applicable                     |

## 16. Other Information

#### Prepared By

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www.thermofisher.com

#### Creation Date

21-Feb-2012

#### Revision Date

21-Dec-2025

#### Print Date

21-Dec-2025

#### Revision Summary

Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**