

Classified as hazardous in accordance with the criteria of EPA New Zealand

## Section 1 - Identification

### Product Identifier

**Product Name** Sulfolane, 80% w/w aq. soln.

**Molecular Formula** C4 H8 O2 S  
**Molecular Weight** 120.17

**Recommended Use** Laboratory chemicals.  
**Uses advised against** No Information available

<b>Product Code</b>	<b>H32505</b>
<b>Address</b>	Thermo Fisher Scientific New Zealand Ltd 244 Bush Road, Albany, Auckland, New Zealand
<b>Emergency Tel.</b>	<b>CHEMTREC®</b> <b>09 980 6780 or +64 9 980 6780</b>
<b>Telephone / Fax Numbers</b>	Tel: 09 980 6700 Fax: 09 980 6788
<b>E-mail address</b>	<u>ANZinfo@thermofisher.com</u>

## Section 2 - Hazard(s) Identification

### Classification under Work Safe New Zealand

Classified as hazardous in accordance with the criteria of EPA New Zealand

### GHS Classification

#### Physical hazards

Based on available data, the classification criteria are not met

#### Health hazards

Acute Oral Toxicity  
 Serious Eye Damage/Eye Irritation  
 Reproductive Toxicity

Category 4  
 Category 2  
 Category 1B

#### Environmental hazards

Based on available data, the classification criteria are not met

### Label Elements

**Signal Word****Danger****Hazard Statements**

H302 - Harmful if swallowed

H360 - May damage fertility or the unborn child

H319 - Causes serious eye irritation

**Precautionary Statements****Prevention**

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P280 - Wear protective gloves/protective clothing/eye protection/face protection

**Response**

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P330 - Rinse mouth

**Storage**

P403 - Store in a well-ventilated place

**Disposal**

P501 - Dispose of contents/ container to an approved waste disposal plant

**Other hazards which do not result in classification**

## Section 3 - Composition and Information on Ingredients

Component	CAS No	Weight %
Tetramethylene sulfone	126-33-0	80
Water	7732-18-5	20

## Section 4 - First Aid Measures

**Description of first aid measures****General Advice**

If symptoms persist, call a physician.

**New Zealand Emergency Tel.**CHEMTREC®  
09 980 6780 or +64 9 980 6780**Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

**Ingestion**

Clean mouth with water and drink afterwards plenty of water.

<b>Self-Protection of the First Aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.
<b>First Aid Facilities</b>	Eyewash, safety shower and washroom.
<b>Most important symptoms and effects</b>	None reasonably foreseeable.
<b>Notes to Physician</b>	Treat symptomatically.

## Section 5 - Fire Fighting Measures

### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### **Extinguishing media which must not be used for safety reasons**

No information available.

### **Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors.

### **Hazardous Combustion Products**

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

### **Special protective equipment and precautions for fire fighters**

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

## Section 6 - Accidental Release Measures

### **Personal Precautions, Protective Equipment and Emergency Procedures**

#### **Emergency procedures**

Ensure adequate ventilation. Use personal protective equipment as required.

#### **Environmental Precautions**

Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

#### **Methods for Containment and Clean Up**

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

#### **Precautions to prevent secondary hazards**

Clean contaminated objects and areas thoroughly observing environmental regulations

#### **Reference to Other Sections**

Refer to protective measures listed in Sections 8 and 13.

## Section 7 - Handling and Storage

### **Precautions for Safe Handling**

#### **Advice on safe handling**

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

**Conditions for Safe Storage, Including any Incompatibilities****Storage Conditions**

Keep container tightly closed in a dry and well-ventilated place.

**Incompatible Materials**

Strong oxidizing agents.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

## Section 8 - Exposure Controls and Personal Protection

**Control parameters****Exposure limits**

The product does not contain any hazardous materials with occupational exposure limits established.

**Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

**Appropriate engineering controls****Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

**Individual protection measures, such as personal protective equipment****Eye Protection**

Wear safety glasses with side shields (or goggles) (Australian/New Zealand Standard AS/NZS 1337 - Eye protectors for Industrial applications)

**Hand Protection**

Protective gloves

Glove material	Breakthrough time	Glove thickness	AUS/NZ Standard	Glove comments
Natural rubber, Nitrile rubber, Neoprene, PVC.	See manufacturers recommendations	-	AS/NZS 2161	(minimum requirement)

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Skin and body protection**

Long sleeved clothing

**Respiratory Protection**

Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use and maintenance of respiratory protective devices

**Recommended Filter type:**

Particulates filter conforming to EN 143 (or AUS/NZ equivalent)

**Recommended half mask:-**

Particle filtering: EN149:2001 (or AUS/NZ equivalent)

When RPE is used a face piece Fit Test should be conducted

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls**

Prevent product from entering drains.

## Section 9 - Physical and Chemical Properties

### Information on basic physical and chemical properties

Physical State	Liquid	
Appearance	Colorless	
Odor	Characteristic	
Odor Threshold	No data available	
pH	No information available	
Melting Point/Range	0 - 5 °C / 32 - 41 °F	
Softening Point	No data available	
Boiling Point/Range	No information available	
Flammability (liquid)	No data available	
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	No data available	
Flash Point	No information available	Method - No information available
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
Viscosity	No data available	
Water Solubility	Miscible	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	log Pow	
Tetramethylene sulfone	<0	
Vapor Pressure	23 hPa @ 20 °C	
Density / Specific Gravity	1.212 g/cm3	@ 20 °C
Bulk Density	Not applicable	Liquid
Vapor Density	No data available	(Air = 1.0)
Particle characteristics	Not applicable (liquid)	

### Other information

Molecular Formula	C4 H8 O2 S
Molecular Weight	120.17

## Section 10 - Stability and Reactivity

Reactivity	None known, based on information available
Stability	Stable under normal conditions.
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available
Hazardous Polymerization	No information available.
Hazardous Reactions	None under normal processing.
Conditions to Avoid	Incompatible products.
Incompatible Materials	Strong oxidizing agents.
Hazardous Decomposition Products	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Sulfur oxides.

## Section 11 - Toxicological Information

**Acute Effects****Information on likely routes of exposure****Product Information**

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

**Numerical measures of toxicity****(a) acute toxicity;**

Oral	Category 4
Dermal	Based on available data, the classification criteria are not met
Inhalation	Based on available data, the classification criteria are not met

**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
Water	-	-	-

**(b) skin corrosion/irritation;** No data available

**(c) serious eye damage/irritation;** No data available

**(d) respiratory or skin sensitization;**

Respiratory	No data available
Skin	No data available

**(e) germ cell mutagenicity;** No data available

**(f) carcinogenicity;** No data available  
There are no known carcinogenic chemicals in this product

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

**(h) STOT-single exposure;** No data available

**(i) STOT-repeated exposure;** No data available

**Target Organs** None known.

**(j) aspiration hazard;** No data available

**Symptoms / effects, both acute and delayed**

No information available.

## Section 12 - Ecological Information

**Ecotoxicity**

**Aquatic ecotoxicity**

Contains a substance which is: Harmful to aquatic organisms. The product contains following substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Tetramethylene sulfone	LC50: > 100 mg/L, 96h static ( <i>Oryzias latipes</i> )	EC50: = 40 mg/L, 48h ( <i>Daphnia magna</i> )	EC50: > 1000 mg/L, 96h ( <i>Pseudokirchneriella subcapitata</i> )	

**Terrestrial ecotoxicity**

There is no data for this product

**Persistence and Degradability****Persistence**

Miscible with water, Persistence is unlikely, based on information available.

**Degradation in sewage treatment plant**

Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

**Bioaccumulative Potential**

Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Tetramethylene sulfone	<0	No data available

**Mobility**

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

**Other adverse effects**

**Endocrine Disruptor Information**  
**Persistent Organic Pollutant**  
**Ozone Depletion Potential**

This product does not contain any known or suspected endocrine disruptors  
 This product does not contain any known or suspected substance  
 This product does not contain any known or suspected substance

## Section 13 - Disposal Considerations

**Waste treatment methods****Waste from Residues/Unused Products**

Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations.

**Contaminated Packaging**

Dispose of this container to hazardous or special waste collection point.

**Other Information**

Disposal agencies or waste contractors must comply with the New Zealand Hazardous Substances (Disposal) Regulations. Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains.

## Section 14 - Transport Information

**NZS 5433:2020**

Not regulated

**IATA**

Not regulated

<b>IMDG/IMO</b>	Not regulated
<b>Environmental hazards</b>	No hazards identified
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable, packaged goods
<b>Special Precautions</b>	No special precautions required. Please refer to the applicable dangerous goods regulations for additional information.
<b>Additional information</b>	None known

## Section 15 - Regulatory Information

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

#### National Regulations

There are no applicable tolerable exposure limits or environmental exposure limits according to the EPA Controls for Hazardous Substances

#### Certified handlers, tracking and controlled substance license requirements

Certified handlers are required for some substances. This includes substances requiring a controlled substance license, and most explosives, vertebrates toxic agents, and certain fumigants. Acutely toxic substances which are a Category 1 or 2, such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information. Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information.

#### Prohibition or notification/licensing requirements

Shown below are details of specific prohibition/notifications or licensing requirements when they apply.

#### International Regulations

<b>Ozone Depletion Potential</b>	This product does not contain any known or suspected substance
<b>Persistent Organic Pollutant</b>	This product does not contain any known or suspected substance
<b>Rotterdam Convention (PIC)</b>	Not applicable
<b>Authorisation/Restrictions according to EU REACH</b>	Not applicable

#### International Inventories

New Zealand (NZIoC), Australia (AICS), Europe (EINECS/ELINCS/NLP), Korea (KECL), China (IECSC), Taiwan (TCSI), Japan (ENCS), Japan (ISHL), Canada (DSL/NDL), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	NZIoC	AICS	EINECS	ELINCS	NLP	KECL	IECSC	TCSI
Tetramethylene sulfone	126-33-0	X	X	204-783-1	-	-	KE-33510	X	X
Water	7732-18-5	X	X	231-791-2	-	-	KE-35400	X	X

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDL	PICCS	ISHL	ENCS
Tetramethylene sulfone	126-33-0	X	ACTIVE	X	-	X	X	X
Water	7732-18-5	X	ACTIVE	X	-	X	-	X



Legend: X - Listed '-' - Not Listed

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

## Section 16 - Other Information

This safety data sheet complies with the requirements of the EPA Hazardous Substances (Hazard Classification) Notice 2020 and WorkSafe New Zealand Regulations

### Legend

<b>NZIoC</b> - New Zealand Inventory of Chemicals	<b>AICS</b> - Australian Inventory of Chemical Substances
<b>TSCA</b> - United States Toxic Substances Control Act Section 8(b) Inventory	<b>EINECS/ELINCS</b> - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
<b>DSL/NDL</b> - Canadian Domestic Substances List/Non-Domestic Substances List	<b>ENCS</b> - Japanese Existing and New Chemical Substances
<b>IECSC</b> - Chinese Inventory of Existing Chemical Substances	<b>KECL</b> - Korean Existing and Evaluated Chemical Substances
<b>PICCS</b> - Philippines Inventory of Chemicals and Chemical Substances	<b>CAS</b> - Chemical Abstracts Service
<b>TWA</b> - Time Weighted Average	<b>ACGIH</b> - American Conference of Governmental Industrial Hygienists
<b>IARC</b> - International Agency for Research on Cancer	<b>PNEC</b> - Predicted No Effect Concentration
<b>NZS 5433:2020</b> - Transport of Dangerous Goods on Land	<b>OECD</b> - Organisation for Economic Co-operation and Development
<b>ICAO/IATA</b> - International Civil Aviation Organization/International Air Transport Association	<b>IMO/IMDG</b> - International Maritime Organization/International Maritime Dangerous Goods Code
<b>MARPOL</b> - International Convention for the Prevention of Pollution from Ships	<b>ADG</b> - Australian Code for the Transport of Dangerous Goods by Road and Rail
<b>LD50</b> - Lethal Dose 50%	<b>LC50</b> - Lethal Concentration 50%
<b>EC50</b> - Effective Concentration 50%	<b>ATE</b> - Acute Toxicity Estimate
<b>WEL</b> - Workplace Exposure Limit	<b>RPE</b> - Respiratory Protective Equipment
<b>DNEL</b> - Derived No Effect Level	<b>NOEC</b> - No Observed Effect Concentration
<b>POW</b> - Partition coefficient Octanol:Water	<b>BCF</b> - Bioconcentration factor
<b>vPvB</b> - very Persistent, very Bioaccumulative	<b>PBT</b> - Persistent, Bioaccumulative, Toxic
<b>VOC</b> - (Volatile Organic Compound)	

### Key literature references and sources for data

HSNO classifications provided in the New Zealand Chemical Classification Information Database (CCID).

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

EPA Guide to classifying hazardous substances in New Zealand

EPA - Assigning a product to an existing HSNO approval guide

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

<b>Physical hazards</b>	On basis of test data
<b>Health Hazards</b>	Calculation method
<b>Environmental hazards</b>	Calculation method

### Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

<b>Revision Date</b>	22-Mar-2023
<b>Revision Summary</b>	SDS sections updated

### 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 Safety Data Sheet