

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**
**Product Identifier**

Perihalan Produk: **2,3,5,6-Tetramethylbenzenesulfonyl chloride**  
 Product Description: **2,3,5,6-Tetramethylbenzenesulfonyl chloride**  
 Cat No. : L01264  
 CAS No 60706-63-0  
 Molecular Formula C<sub>10</sub>H<sub>13</sub>ClO<sub>2</sub>S

**Relevant identified uses of the substance or mixture and uses advised against**

Recommended Use Laboratory chemicals.  
 Uses advised against No Information available

**Company**

Thermo Fisher Scientific Fisher Scientific (M) Sdn Bhd  
 Hap Seng Business Park, Lot 01-03, 01-04 Aras 1 Unity Square,  
 No 12, Persiaran Perusahaan, Seksyen 23, 40300 Shah Alam,  
 Selangor Darul Ehsan, Malaysia.  
 Main line: +60 3-5525 7888

**Supplier**

E-mail address Enquiry.my@thermofisher.com

**Emergency Telephone Number**

Tel: +03-5525 7888  
 CHEMTREC Malaysia **1-800-815-308** (Malay)  
 CHEMTREC Malaysia (Kuala Lumpur) **+(60)-327884561** (Malay)

**SECTION 2: HAZARDS IDENTIFICATION**
**Classification of the substance or mixture**

|                                   |                     |
|-----------------------------------|---------------------|
| Skin Corrosion/Irritation         | Category 1 B (H314) |
| Serious Eye Damage/Eye Irritation | Category 1 (H318)   |

**Label Elements**

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

H314 - Causes severe skin burns and eye damage

# SAFETY DATA SHEET

2,3,5,6-Tetramethylbenzenesulfonyl chloride

Revision Date 24-Mar-2025

## Precautionary Statements

### Prevention

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

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

### Response

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

P362 + P364 - Take off contaminated clothing and wash it before reuse

### Storage

P403 - Store in a well-ventilated place

### Disposal

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

## Other Hazards

EUH029 - Contact with water liberates toxic gas

EUH014 - Reacts violently with water

This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Component                                   | CAS No     | Weight % |
|---|------------|----------|
| 2,3,5,6-Tetramethylbenzenesulfonyl chloride | 60706-63-0 | <=100    |

## SECTION 4: FIRST AID MEASURES

### Description of first aid measures

#### Eye Contact

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

#### Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

#### Ingestion

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician immediately. If possible drink milk afterwards.

#### Inhalation

Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. Immediate medical attention is required.

#### Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

### Most important symptoms and effects, both acute and delayed

Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

### Indication of any immediate medical attention and special treatment needed

#### Notes to Physician

Treat symptomatically.

# SAFETY DATA SHEET

2,3,5,6-Tetramethylbenzenesulfonyl chloride

Revision Date 24-Mar-2025

## SECTION 5: FIREFIGHTING MEASURES

### Extinguishing media

#### **Suitable Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam.

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

Water.

### Special hazards arising from the substance or mixture

Contact with water liberates toxic gas. Water reactive. Produce flammable gases on contact with water.

### **Hazardous Combustion Products**

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

### Advice 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

Ensure adequate ventilation.

### Environmental precautions

See Section 12 for additional Ecological Information.

### Methods and Material for Containment and Cleaning Up

Sweep up and shovel into suitable containers for disposal. Do not expose spill to water.

### Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### Precautions for Safe Handling

Do not breathe dust. Do not get in eyes, on skin, or on clothing. Handle product only in closed system or provide appropriate exhaust ventilation. Do not allow contact with water because of violent reaction. Keep under nitrogen.

### Conditions for Safe Storage, Including any Incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Protect from moisture. Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place.

### Specific End Uses

Use in laboratories.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

# SAFETY DATA SHEET

2,3,5,6-Tetramethylbenzenesulfonyl chloride

Revision Date 24-Mar-2025

## Control Parameters

### Exposure Controls

#### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

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

### Personal protective equipment

#### Eye Protection

Goggles

#### Hand Protection

Protective gloves

#### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

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.

#### Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

#### Recommended Filter type:

Particulates filter conforming to EN 143

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

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

No information available

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

#### Appearance

Light cream

#### Physical State

Powder Solid

#### Odor

No information available

#### Odor Threshold

No data available

#### pH

No information available

#### Melting Point/Range

97 - 101 °C / 206.6 - 213.8 °F

#### Softening Point

No data available

#### Boiling Point/Range

No information available

#### Flash Point

No information available

**Method -** No information available

#### Evaporation Rate

Not applicable

Solid

#### Flammability (solid,gas)

No information available

# SAFETY DATA SHEET

2,3,5,6-Tetramethylbenzenesulfonyl chloride

Revision Date 24-Mar-2025

|                              |                          |       |
|------------------------------|--------------------------|-------|
| Explosion Limits             | No data available        |       |
| Vapor Pressure               | No data available        | Solid |
| Vapor Density                | Not applicable           |       |
| Specific Gravity / Density   | No data available        |       |
| Bulk Density                 | No data available        |       |
| Water Solubility             | No information available |       |
| Solubility in other solvents | No information available |       |

## Partition Coefficient (n-octanol/water)

|                           |                          |       |
|---------------------------|--------------------------|-------|
| Autoignition Temperature  | No data available        | Solid |
| Decomposition Temperature | No data available        |       |
| Viscosity                 | Not applicable           |       |
| Explosive Properties      | No information available |       |
| Oxidizing Properties      | No information available |       |

|                   |                 |
|-------------------|-----------------|
| Molecular Formula | C10 H13 Cl O2 S |
| Molecular Weight  | 232.73          |

## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

Yes.

### Chemical Stability

Moisture sensitive.

### Possibility of Hazardous Reactions

|                          |                           |
|--------------------------|---------------------------|
| Hazardous Polymerization | No information available. |
| Hazardous Reactions      | No information available. |

### Conditions to Avoid

Incompatible products. Exposure to moist air or water.

### Incompatible Materials

Strong oxidizing agents. Strong bases.

### Hazardous Decomposition Products

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

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

# SAFETY DATA SHEET

2,3,5,6-Tetramethylbenzenesulfonyl chloride

Revision Date 24-Mar-2025

|  |   |
|--|---|
| <b>Product Information</b>                       | No acute toxicity information is available for this product   |
| <b>(a) acute toxicity;</b>                       |   |
| Oral   | No data available   |
| Dermal   | No data available   |
| Inhalation                                       | No data available   |
| <b>(b) skin corrosion/irritation;</b>            | Category 1 B  |
| <b>(c) serious eye damage/irritation;</b>        | Category 1  |
| <b>(d) respiratory or skin sensitization;</b>    |   |
| Respiratory                                      | No data available   |
| Skin   | No data available   |
| <b>(e) germ cell mutagenicity;</b>               | No data available   |
| <b>(f) carcinogenicity;</b>                      | No data available<br>There are no known carcinogenic chemicals in this product  |
| <b>(g) reproductive toxicity;</b>                | No data available   |
| <b>(h) STOT-single exposure;</b>                 | No data available   |
| <b>(i) STOT-repeated exposure;</b>               | No data available   |
| Target Organs                                    | No information available.   |
| <b>(j) aspiration hazard;</b>                    | Not applicable<br>Solid   |
| <b>Other Adverse Effects</b>                     | The toxicological properties have not been fully investigated.  |
| <b>Symptoms / effects,both acute and delayed</b> | Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. |
| <b>Endocrine Disrupting Properties</b>           | Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.   |

## SECTION 12: ECOLOGICAL INFORMATION

|   |   |
|---|---|
| <b><u>Ecotoxicity effects</u></b>           | Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants. |
| <b><u>Persistence and degradability</u></b> | No information available  |

# SAFETY DATA SHEET

2,3,5,6-Tetramethylbenzenesulfonyl chloride

Revision Date 24-Mar-2025

|  |   |
|--|---|
| <u>Bioaccumulative potential</u>       | No information available  |
| <u>Mobility in soil</u>                | No information available.   |
| <u>Endocrine Disruptor Information</u> | This product does not contain any known or suspected endocrine disruptors |
| <u>Other adverse effects</u>           | No information available  |

## SECTION 13: DISPOSAL CONSIDERATIONS

|  |   |
|--|---|
| <u>Waste treatment methods</u>             |   |
| <u>Waste from Residues/Unused Products</u> | Waste is classified as hazardous Dispose of in accordance with the European Directives on waste and hazardous waste Dispose of in accordance with local regulations                                       |
| <u>Contaminated Packaging</u>              | Dispose of this container to hazardous or special waste collection point.   |
| <u>Other Information</u>                   | Waste codes should be assigned by the user based on the application for which the product was used Do not empty into drains Do not flush to sewer Large amounts will affect pH and harm aquatic organisms |

## SECTION 14: TRANSPORT INFORMATION

|                                     |  |
|-------------------------------------|--|
| <u>IMDG/IMO</u>                     |  |
| UN-No                               | UN3261   |
| Hazard Class                        | 8  |
| Packing Group                       | II   |
| Proper Shipping Name                | CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. 2,3,5,6-Tetramethylbenzenesulfonyl chloride |
| <u>Road and Rail Transport</u>      |  |
| UN-No                               | UN3261   |
| Hazard Class                        | 8  |
| Packing Group                       | II   |
| Proper Shipping Name                | CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. 2,3,5,6-Tetramethylbenzenesulfonyl chloride |
| <u>IATA</u>                         |  |
| UN-No                               | UN3261   |
| Hazard Class                        | 8  |
| Packing Group                       | II   |
| Proper Shipping Name                | CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. 2,3,5,6-Tetramethylbenzenesulfonyl chloride |
| <u>Special Precautions for User</u> | No special precautions required  |

## SECTION 15: REGULATORY INFORMATION

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

|                           |            |
|---------------------------|------------|
| International Inventories | X = listed |
|---------------------------|------------|

# SAFETY DATA SHEET

2,3,5,6-Tetramethylbenzenesulfonyl chloride

Revision Date 24-Mar-2025

## National Regulations

**Persistent Organic Pollutant**  
**Ozone Depletion Potential**

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

## SECTION 16: OTHER INFORMATION

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**POW** - Partition coefficient Octanol:Water

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

### **Key literature references and sources for data**

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

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

**Prepared By**

**Revision Date**

**Revision Summary**

Health, Safety and Environmental Department

24-Mar-2025

Not applicable.

**In accordance with local and national regulations: Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013**

### **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



# SAFETY DATA SHEET

2,3,5,6-Tetramethylbenzenesulfonyl chloride

Revision Date 24-Mar-2025

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**End of Safety Data Sheet**