

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**

Perihal Produk: **METIL ASETAT, 99%, EKSTRA TULEN**  
 Product Description: **Methyl acetate**  
 Cat No. : 181380000; 181380010; 181380025  
 Synonyms: Acetic acid, methyl ester; Methyl ethanoate.  
 CAS No 79-20-9  
 Molecular Formula C3 H6 O2

**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

**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**

Flammable liquids	Category 2 (H225)
Serious Eye Damage/Eye Irritation	Category 2 (H319)
Specific target organ toxicity - (single exposure)	Category 3 (H336)

**Label Elements**

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

H225 - Highly flammable liquid and vapor

# SAFETY DATA SHEET

Methyl acetate

Revision Date 21-Mar-2025

H336 - May cause drowsiness or dizziness

H319 - Causes serious eye irritation

## Precautionary Statements

### Prevention

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P240 - Ground and bond container and receiving equipment

P241 - Use explosion-proof electrical/ ventilating/ lighting equipment

P242 - Use non-sparking tools

P243 - Take action to prevent static discharges

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

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

P271 - Use only outdoors or in a well-ventilated area

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

### Response

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

P312 - Call a POISON CENTER or doctor if you feel unwell

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

### Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

### Disposal

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

## Other Hazards

EUH066 - Repeated exposure may cause skin dryness or cracking

This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
Methyl acetate	79-20-9	>95

## SECTION 4: FIRST AID MEASURES

### Description of first aid measures

#### 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. Get medical attention.

#### Ingestion

Clean mouth with water. Do NOT induce vomiting. Get medical attention.

#### Inhalation

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

#### 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

Difficulty in breathing. Inhalation of high vapor concentrations may cause symptoms like

# SAFETY DATA SHEET

Methyl acetate

Revision Date 21-Mar-2025

headache, dizziness, tiredness, nausea and vomiting.

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

Notes to Physician

Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### Extinguishing media

#### **Suitable Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Water mist may be used to cool closed containers. Chemical foam. Water mist may be used to cool closed containers.

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

Water may be ineffective.

### Special hazards arising from the substance or mixture

Flammable. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Vapors may form explosive mixtures with air.

#### **Hazardous Combustion Products**

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

### 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

Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

### Environmental precautions

See Section 12 for additional Ecological Information.

### Methods and Material for Containment and Cleaning Up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

### Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### Precautions for Safe Handling

Avoid contact with skin and eyes. Do not breathe mist/vapors/spray. Remove all sources of ignition. Use only non-sparking tools. Wash hands before breaks and immediately after handling the product. Keep away from open flames, hot surfaces and sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

# SAFETY DATA SHEET

Methyl acetate

Revision Date 21-Mar-2025

## Conditions for Safe Storage, Including any Incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks and flame. Flammables area. Keep container tightly closed in a dry and well-ventilated place.

## Specific End Uses

Use in laboratories.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Component	Malaysia	ACGIH TLV	OSHA PEL
Methyl acetate		TWA: 200 ppm STEL: 250 ppm	(Vacated) TWA: 200 ppm (Vacated) TWA: 610 mg/m <sup>3</sup> (Vacated) STEL: 250 ppm (Vacated) STEL: 760 mg/m <sup>3</sup> TWA: 200 ppm TWA: 610 mg/m <sup>3</sup>

Component	European Union	The United Kingdom	Germany
Methyl acetate		STEL: 250 ppm 15 min STEL: 770 mg/m <sup>3</sup> 15 min TWA: 200 ppm 8 hr TWA: 616 mg/m <sup>3</sup> 8 hr	TWA: 200 ppm (8 Stunden). AGW - exposure factor 2 TWA: 620 mg/m <sup>3</sup> (8 Stunden). AGW - exposure factor 2 TWA: 100 ppm (8 Stunden). MAK TWA: 310 mg/m <sup>3</sup> (8 Stunden). MAK Höhepunkt: 400 ppm Höhepunkt: 1240 mg/m <sup>3</sup>

### Exposure Controls

#### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment.

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

No protective equipment is needed under normal use conditions

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

### Environmental exposure controls

No information available

# SAFETY DATA SHEET

Methyl acetate

Revision Date 21-Mar-2025

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Appearance	Colorless	
Physical State	Liquid	
Odor	aromatic	
Odor Threshold	No data available	
pH	No information available	
Melting Point/Range	-98 °C / -144.4 °F	
Softening Point	No data available	
Boiling Point/Range	57.4 °C / 135.3 °F	@ 760 mmHg
Flash Point	-10 °C / 14 °F	<b>Method -</b> No information available
Evaporation Rate	No data available	
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	<b>Lower</b> 3 Vol% <b>Upper</b> 16 Vol%	
Vapor Pressure	220 mbar @ 20 °C	
Vapor Density	2.8 (Air = 1.0)	(Air = 1.0)
Specific Gravity / Density	0.930	
Bulk Density	Not applicable	Liquid
Water Solubility	250 g/L (20°C)	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	<b>log Pow</b>	
Methyl acetate	0.18	
Autoignition Temperature	455 °C / 851 °F	
Decomposition Temperature	No data available	
Viscosity	0.38 mPa s at 20 °C	
Explosive Properties		Vapors may form explosive mixtures with air
Oxidizing Properties	No information available	
Molecular Formula	C3 H6 O2	
Molecular Weight	74.08	

## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

None known, based on information available.

### Chemical Stability

Stable under normal conditions.

# SAFETY DATA SHEET

Methyl acetate

Revision Date 21-Mar-2025

## Possibility of Hazardous Reactions

**Hazardous Polymerization** No information available.  
**Hazardous Reactions** No information available.

## Conditions to Avoid

Keep away from open flames, hot surfaces and sources of ignition. Excess heat.  
Incompatible products. Exposure to moisture.

## Incompatible Materials

Acids. Bases.

## Hazardous Decomposition Products

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

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### Product Information

(a) acute toxicity;  
**Oral** Based on available data, the classification criteria are not met  
**Dermal** Based on available data, the classification criteria are not met  
**Inhalation** Based on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methyl acetate	LD50 = 6482 mg/kg ( Rat )	LD50 > 5 g/kg ( Rabbit )	LC50 49.2 - 98.4 mg/L ( Rat ) 4 h

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

(c) serious eye damage/irritation; Category 2

(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

(f) carcinogenicity; Based on available data, the classification criteria are not met  
There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; Based on available data, the classification criteria are not met

(h) STOT-single exposure; Category 3

**Results / Target organs** Central nervous system (CNS).

# SAFETY DATA SHEET

Methyl acetate

Revision Date 21-Mar-2025

(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 Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Endocrine Disrupting Properties Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity effects Do not empty into drains. .

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Methyl acetate	LC50: 250 - 350 mg/L, 96h static (Brachydanio rerio) LC50: 295 - 348 mg/L, 96h flow-through (Pimephales promelas)	EC50: = 1026.7 mg/L, 48h (Daphnia magna)	EC50: > 120 mg/L, 72h (Desmodesmus subspicatus)	EC50 = 6000 mg/L 16 h EC50 = 6100 mg/L 30 min

Persistence and degradability Expected to be biodegradable  
Persistence Persistence is unlikely, based on information available.

Bioaccumulative potential Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Methyl acetate	0.18	No data available

Mobility in soil The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Will likely be mobile in the environment due to its volatility. Disperses rapidly in air.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors

Other adverse effects No information available

## SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods  
Waste from Residues/Unused Products 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

Contaminated Packaging Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous Keep product and empty container away from heat and sources of ignition

Other Information Waste codes should be assigned by the user based on the application for which the product

# SAFETY DATA SHEET

Methyl acetate

Revision Date 21-Mar-2025

was used Do not flush to sewer Can be landfilled or incinerated, when in compliance with local regulations

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

UN-No UN1231  
Hazard Class 3  
Packing Group II  
Proper Shipping Name METHYL ACETATE

### Road and Rail Transport

UN-No UN1231  
Hazard Class 3  
Packing Group II  
Proper Shipping Name METHYL ACETATE

### IATA

UN-No UN1231  
Hazard Class 3  
Packing Group II  
Proper Shipping Name METHYL ACETATE

Special Precautions for User No special precautions required

## SECTION 15: REGULATORY INFORMATION

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

International Inventories X = listed

Component	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	IECSC	AICS	KECL
Methyl acetate	201-185-2	X	X	X	X	X	X	X	KE-23405

Component	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)
Methyl acetate				Annex I - Y42

### National Regulations

Persistent Organic Pollutant This product does not contain any known or suspected substance  
Ozone Depletion Potential This product does not contain any known or suspected substance

## SECTION 16: OTHER INFORMATION

### Legend



# SAFETY DATA SHEET

Methyl acetate

Revision Date 21-Mar-2025

**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

Revision Date

21-Mar-2025

Revision Summary

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

**End of Safety Data Sheet**