

Safety Data Sheet

Product name: Methyl acetate

CAS No.: 79-20-9

Prepared in accordance with GB/T 16483, GB/T 17519

SECTION 1: Identification of the substance/mixture and of the company/undertaking

>Product identifier

- Product name: Methyl acetate
- CBnumber: CB9167443
- CAS: 79-20-9
- EINECS Number: 201-185-2
- Synonyms: methyl acetate,acetic acid methyl ester

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

- Relevant identified uses: For R&D use only. Not for medicinal, household or other use.
- Uses advised against: none

>Company Identification

- Company: Linyi Tuohui New Materials Co., Ltd.
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SECTION 2: Hazards identification

>GHS Label elements, including precautionary statements

- Symbol(GHS)



- Signal wordDanger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing.

Rinse SKIN with water/shower.

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

P337+P313 IF eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use ... for extinction.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Hazard statements

H225 Highly Flammable liquid and vapour

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

SECTION 3: Composition/information on ingredients

>Substance

- Product name: Methyl acetate
- Synonyms: methyl acetate, acetic acid methyl ester
- CAS: 79-20-9
- EC number: 201-185-2
- MF: C₃H₆O₂
- MW: 74.08

SECTION 4: First aid measures

>Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

>Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

>Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

>Extinguishing media**Suitable extinguishing media**

Carbon dioxide (CO₂) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

>Special hazards arising from the substance or mixture

Carbon oxides Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

>Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

>Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

>NFPA 704

2

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SECTION 6: Accidental release measures

>Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

>Environmental precautions

Do not let product enter drains. Risk of explosion.

>Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb). Dispose of properly. Clean up affected area.

>Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

>Precautions for safe handling

> Advice on safe handling

Avoid generation of vapours/aerosols.

> Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

> Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

For precautions see section 2.2.

>Conditions for safe storage, including any incompatibilities

> Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

>Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

>control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

>Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: butyl-rubber

Minimum layer thickness: 0,7 mm Break through time: 240 min Material tested:Butoject (KCL 898)

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

TLV-TWA 200 ppm (~ 610 mg/m³) (ACGIH, MSHA, and OSHA); TLV-STEL 250 ppm (~ 760 mg/m³) (ACGIH); IDLH 10,000 ppm (NIOSH).

SECTION 9: Physical and chemical properties

>Information on basic physicochemical properties

- Appearancecolorless clear, liquid
- Odourfruity
- Odour Threshold1.7ppm
- pHNo data available
- Melting point/freezing pointMelting point/range: -98 °C - lit.
- Initial boiling point and boiling range57 - 58 °C - lit.
- Flash point-13 °C - closed cup - DIN 51755 Part 1
- Evaporation rateNo data available
- Flammability (solid, gas)No data available
- Upper/lower flammability or explosive limits Upper explosion limit: 16 %(V) Lower explosion limit: 3,1 %(V)
- Vapour pressure 228 hPa at 20 °C 787 hPa at 50 °C
- Vapour density 2,8
- Relative densityNo data available
- Water solubility319 g/l at 20 °C
- Partition coefficient: n-octanol/waterlog Pow: 0,18 - Bioaccumulation is not expected.
- Autoignition temperature 454 °C at 1.013 hPa
- Decomposition temperature No data available
- ViscosityViscosity, kinematic: No data available Viscosity, dynamic: 0,381 mPa.s at 20 °C0,364 mPa.s at 25 °C
- Explosive propertiesNo data available
- Oxidizing propertiesNo data available
- Henry's Law Constant0.90 at 20.00 °C, 1.56 at 30.00 °C (headspace-GC, Hovorka et al., 2002)
- λ_{max} : 255 nm A_{max} : 1.0
 λ : 275 nm A_{max} : 0.1
 λ : 300 nm A_{max} : 0.01

>Other safety information

Surface tension 24 mN/m at 20 °C

Relative vapor density

2,8

SECTION 10: Stability and reactivity

>Reactivity

Vapors may form explosive mixture with air.

>Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

>Possibility of hazardous reactions

Exothermic reaction with:

Risk of ignition or formation of inflammable gases or vapours with:

Strong oxidizing agents

can decompose violently in contact with:

Bases acids

>Conditions to avoid

Warming.

>Incompatible materials

rubber, various plastics

>Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

>Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 6.482 mg/kg

(OECD Test Guideline 401)

Symptoms: Possible damages:, Irritation symptoms in the respiratory tract.

LD50 Dermal - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irritating to eyes. (OECD Test Guideline 405)

(Regulation (EC) No 1272/2008, Annex VI)

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative

Test Type: In vivo micronucleus test Species: Rat

Cell type: Bone marrow Application Route: Inhalation Method: OECD Test Guideline 474 Result: negative

Carcinogenicity

Reproductive toxicity

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness. - Central nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

No data available

Aspiration hazard

Toxicity

LD50 orally in Rabbit: > 5000 mg/kg LD50 dermal Rat > 2000 mg/kg

SECTION 12: Ecological information

>Toxicity

Toxicity to fish

static test LC50 - Danio rerio (zebra fish) - 250 - 350 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - 1.026,7 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae

static test ErC50 - Desmodesmus subspicatus (green algae) - > 120 mg/l - 72 h

(OECD Test Guideline 201)

Toxicity to bacteria

static test EC50 - Pseudomonas putida - 6.000 mg/l - 16 h (DIN 38412)

>Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 70 % - Readily biodegradable. (OECD Test Guideline 301D)

>Bioaccumulative potential

No data available

>Mobility in soil

>Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

>Toxics Screening Level

The initial threshold screening level (ITSL) for methyl acetate is 6,100 µg/m³ based on a 8 hr. averaging time.

>Other adverse effects

Biological effects:

When discharged properly, no impairments in the function of adapted biological wastewater treatment plants are to be expected.

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

>Waste treatment methods

> Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

Incompatibilities

Vapor may form explosive mixture with air. A Strong reducing agent. Incompatible water, acids, nitrates, strong oxidizers; alkalis. Attacks some plastics. Attacks many metals in presence of water. Reacts slowly with water, forming acetic acid and methanol. Decomposes in heat; on contact with air, bases, strong oxidizers; UV-light; possible fire and explosion hazard

Waste Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. All federal, state, and local environmental regulations must be observed.

SECTION 14: Transport information

>UN number

ADR/RID: 1231 IMDG: 1231 IATA: 1231

>UN proper shipping name

ADR/RID: METHYL ACETATE IMDG: METHYL ACETATE IATA: Methyl acetate

>Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

>Packaging group

ADR/RID: II IMDG: II IATA: II

>Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

>Special precautions for user

No data available

SECTION 15: Regulatory information

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

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: <https://www.mem.gov.cn/>

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: <https://www.mee.gov.cn/>

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: <https://echa.europa.eu/>

Korea Existing Chemicals List (KECL):Listed. website: <http://ncis.nier.go.kr>

New Zealand Inventory of Chemicals (NZIoC):Listed. website: <https://www.epa.govt.nz/>

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: <https://emb.gov.ph/>

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: <https://www.epa.gov/>

Vietnam National Chemical Inventory:Listed. website: <https://chemicaldata.gov.vn/>

SECTION 16: Other information

>Abbreviations and acronyms

- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- CAS: Chemical Abstracts Service
- EC50: Effective Concentration 50%
- IATA: International Air Transportation Association
- IMDG: International Maritime Dangerous Goods
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- STEL: Short term exposure limit
- TWA: Time Weighted Average

>References

- 【1】 CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- 【2】 ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- 【3】 ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>
- 【4】 eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- 【5】 ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- 【6】 Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- 【7】 HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- 【8】 IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- 【9】 IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- 【10】 Sigma-Aldrich, website: <https://www.sigmaaldrich.com/>

>Other Information

Do NOT take working clothes home. The odour warning when the exposure limit value is exceeded is insufficient.