
SAFETY DATA SHEETS

According to Globally Harmonized System of Classification and Labelling
of Chemicals (GHS) - Sixth revised edition

Version: 1.0

Creation Date: Aug 12, 2017

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1. Identification

1.1 GHS Product identifier

Product name Methyl acetate

1.2 Other means of identification

Product number -

Other names Acetic Acid Methyl Ester

1.3 Recommended use of the chemical and restrictions on use

Identified uses For industry use only. Food additives -> Flavoring Agents

Uses advised against no data available

1.4 Supplier's details

Company Echem Incorporation Limited

Address Yingdelong Building 5Floor Shinan District, Qingdao City
Shandong Province China

Telephone 86-532-8090-5922

Fax 86-532-8090-5933

1.5 Emergency phone number

Emergency 86-532-8090-5922

phone number

Service hours Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

2. Hazard identification

2.1 Classification of the substance or mixture

Flammable liquids, Category 2

Eye irritation, Category 2

Specific target organ toxicity – single exposure, Category 3

2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word Danger

Hazard H225 Highly flammable liquid and vapour

statement(s) H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

Precautionary

statement(s)

-
- Prevention**
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - P233 Keep container tightly closed.
 - 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.
 - P280 Wear protective gloves/protective clothing/eye protection/face protection.
 - P264 Wash ... thoroughly after handling.
 - P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 - P271 Use only outdoors or in a well-ventilated area.
- Response**
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 - P370+P378 In case of fire: Use ... to extinguish.
 - 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.

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

P312 Call a POISON CENTER/doctor/...if you feel unwell.

Storage

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

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

P405 Store locked up.

Disposal

P501 Dispose of contents/container to ...

2.3 Other hazards which do not result in classification

none

3. Composition/information on ingredients**3.1 Substances**

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Methyl acetate	Methyl acetate	79-20-9	none	100%

4. First-aid measures**4.1 Description of necessary first-aid measures****General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

Fresh air, rest. Refer for medical attention.

In case of skin contact

Rinse contaminated clothes (fire hazard) with plenty of water. Remove contaminated clothes. Rinse skin with plenty of water or shower.

In case of eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

If swallowed

Rinse mouth. Give one or two glasses of water to drink. Refer for medical attention .

4.2 Most important symptoms/effects, acute and delayed

(Very similar to those of methyl alcohol, which constitutes 20% of commercial grade.) Inhalation causes headache, fatigue, and drowsiness; high concentrations can produce central nervous system depression and optic nerve damage. Liquid irritates eyes and may cause defatting and cracking of skin. Ingestion causes headache, dizziness, drowsiness, fatigue; may cause severe eye damage. (USCG, 1999)

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR as necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. /Methyl alcohol and related compounds/

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

Behavior in Fire: Vapor is heavier than air and may travel a considerable distance to a source of ignition and flash back. (USCG, 1999)

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Remove all ignition sources. Evacuate danger area! Consult an expert! Personal protection: filter respirator for organic gases and vapours of low boiling point adapted to the airborne concentration of the substance. Do NOT wash away into sewer. Collect leaking liquid in sealable containers. Absorb liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

6.3 Methods and materials for containment and cleaning up

Remove all ignition sources. Establish forced ventilation to keep levels below explosive limit. Absorb liquids in vermiculite, dry sand, earth, peat, carbon or a similar material and deposit in sealed containers. Keep this chemical out of a confined space, such as a sewer, because of the possibility of an explosion.

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Fireproof. Separated from strong oxidants, strong acids and strong bases. Store in a flammable liquid storage area or approved cabinet away from ignition sources and corrosive and reactive materials. ... Methyl acetate must be stored to avoid contact with strong oxidizers (such as chlorine, bromine, and fluorine) and strong acids (such as hydrochloric, sulfuric, and nitric), since violent reactions occur. Store in tightly closed containers in a cool, well-ventilated area away from strong alkalis and nitrates. Sources of ignition, such as smoking and open flames, are prohibited where methyl acetate is used, handled or stored in a manner that could create a potential fire or explosion hazard. Use only nonsparking tools and equipment, especially when opening and closing containers of methyl acetate.

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

Recommended Exposure Limit: 10 Hour Time-Weighted Average: 200 ppm (610 mg/cu m).

Recommended Exposure Limit: 15 Minute Short-Term Exposure Limit: 250 ppm (760 mg/cu m).

Biological limit values

no data available

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment

(PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

no data available

9. Physical and chemical properties

Physical state	Methyl acetate is a clear colorless liquid with a fragrant odor. Moderately toxic. Flash point -10°C. Vapors heavier than air.
Colour	Colorless, volatile liquid
Odour	Pleasant odor
Melting point/ freezing point	19°C(lit.)
Boiling point or initial boiling point and boiling range	57-58°C(lit.)
Flammability	Class IB Flammable Liquid: Fl.P. below 22.78°C and BP at or above 37.78°C. Highly flammable.

Gives off irritating or toxic fumes (or gases) in a fire.

Lower and upper explosion limit / volume Lower flammable limit: 3.1% by volume; Upper flammable limit: 16%

flammability limit

Flash point -13°C

Auto-ignition temperature 502.22°C

Decomposition temperature

no data available

pH

no data available

Kinematic viscosity 0.364 mPa.s at 25°C

Solubility

greater than or equal to 100 mg/mL at 21.11°C

Partition coefficient n-octanol/water (log value) log Kow = 0.18

Vapour pressure

170 mm Hg at 20°C ; 235 mm Hg at 25°C

Density and/or relative density 0.934g/mL at 25°C

Relative vapour 2.55 (vs air)

density

Particle no data available

characteristics

10.Stability and reactivity

10.1Reactivity

no data available

10.2Chemical stability

Stable under recommended storage conditions.

10.3Possibility of hazardous reactions

Dangerous fire hazard when exposed to heat, flame, or oxidizers.The vapour is heavier than air and may travel along the ground; distant ignition possible.METHYL ACETATE presents a fire or explosion hazard when exposed to strong oxidizing agents. Emits irritating fumes and acrid smoke when heated to decomposition, [Lewis, 3rd ed., 1993, p. 826]. Its reactivity is consistent with other compounds of the ester group.

10.4Conditions to avoid

no data available

10.5Incompatible materials

Forms explosive mixture with air. a strong reducing agent. Incompatible with water, acids, nitrates, strong oxidizers, alkalis. Attacks some plastics. Attacks many metals in teh presence of water. Reacts slowly with water, forming acetic acid and methanol.

10.6Hazardous decomposition products

Decomposes in heat; on contact with air, bases, strong oxidizers, UV-light, casuing fire and explosion hazard.

11. Toxicological information

Acute toxicity

- Oral: LD50 Rat oral 6,482 mg/kg
- Inhalation: LC50 Cat inhalation > 30 mg/L 10hr
- Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

12. Ecological information

12.1 Toxicity

- Toxicity to fish: LC50; Species: Pimephales promelas (fathead minnows); Concentration: 399 mg/L for 96 hr (confidence limit 378-422 mg/L) /Conditions of bioassay not specified
- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

12.2 Persistence and degradability

AEROBIC: Methyl acetate achieved >70% after 28 days in an OECD 301D Closed bottle test(1). Methyl acetate reached > 95% degradation in a 5 day BOD test(2).

12.3 Bioaccumulative potential

An estimated BCF of 3.2 was calculated in fish for methyl acetate(SRC), using a log Kow of 0.18(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

12.4 Mobility in soil

The Koc of methyl acetate is estimated as 9.1(SRC), using a log Kow of 0.18(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that methyl acetate is expected to have very high mobility in soil(SRC).

12.5 Other adverse effects

no data available

13. Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. Transport information

14.1 UN Number

ADR/RID: UN1231

IMDG: UN1231

IATA: UN1231

14.2 UN Proper Shipping Name

ADR/RID: METHYL ACETATE

IMDG: METHYL ACETATE

IATA: METHYL ACETATE

14.3 Transport hazard class(es)

ADR/RID: 3

IMDG: 3

IATA: 3

14.4 Packing group, if applicable

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: no

IMDG: no

IATA: no

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC**Code**

no data available

15. Regulatory information**15.1 Safety, health and environmental regulations specific for the product in question**

Chemical name	Common names and synonyms	CAS number	EC number
Methyl acetate	Methyl acetate	79-20-9	none
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Listed.
Vietnam National Chemical Inventory			Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.

16. Other information

Information on revision

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Abbreviations and acronyms

- CAS: Chemical Abstracts Service
 - ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 - RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
 - IMDG: International Maritime Dangerous Goods
 - IATA: International Air Transportation Association
 - TWA: Time Weighted Average
 - STEL: Short term exposure limit
 - LC50: Lethal Concentration 50%
 - LD50: Lethal Dose 50%
 - EC50: Effective Concentration 50%
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Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.