Richest Group
No. 999, Jiangyue Rd, Minhang, Shanghai 201114, China
Tel: 0086 21 5017 5386
E-mail: inquiry@richest-group.com
Web: www.richest-group.com

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product	Methyl Acetate	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

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

Product name	Methyl Acetate
Synonyms	METHYL ACETATE; 79-20-9; Devoton; Tereton; Methyl ethanoate; Acetic acid, methyl ester
CAS No.	79-20-9
EC No.	201-185-2
Molecular formula	C3H6O2
Molecular weight	74.08 g/mol
Relevant identified uses	Laboratory chemicals and manufacture of substances.
Uses advised against	No specific uses advised against were identified in the reviewed sources.
Company	Richest Group
Address	No. 999, Jiangyue Rd, Minhang, Shanghai 201114, China
Telephone	0086 21 5017 5386
E-mail	inquiry@richest-group.com
Website	www.richest-group.com
Emergency telephone number	0086 21 5017 5386

SECTION 2: Hazards identification

GHS Classification	Flammable liquids Category 2; Eye irritation Category 2; Specific target organ toxicity—single exposure Category 3, central nervous system
Pictogram(s)	GHS02; GHS07
Signal word	Danger
Hazard statement(s)	H225 Highly flammable liquid and vapour; H319 Causes serious eye irritation; H336 May cause drowsiness or dizziness
Precautionary statement(s)	P210; P305+P351+P338
Other hazards	In the body, methyl acetate is hydrolyzed into methanol and acetic acid. It causes narcosis in animals exposed to high concentrations.

SECTION 3: Composition/information on ingredients

Component	Methyl Acetate
CAS No.	79-20-9
EC No.	201-185-2
Classification	Flammable liquids Category 2; Eye irritation Category 2; Specific target organ toxicity—single exposure Category 3, central nervous system
Concentration	≥99.80% (m/m)

SECTION 4: First-aid measures	
If inhaled	IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere.
In case of skin contact	Water flush promptly - If this chemical contacts the skin, flush the contaminated skin with water promptly. If this chemical penetrates the clothing, immediately remove the clothing and flush the skin with water promptly. If irritation persists after washing, get medical attention.
In case of eye contact	First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.
If swallowed	DO NOT INDUCE VOMITING. Volatile chemicals have a high risk of being aspirated into the victim's lungs during vomiting which increases the medical problems. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. IMMEDIATELY transport the victim to a hospital.
Most important symptoms and effects	No data available
Indication of immediate medical attention	Treat symptomatically. Show this safety data sheet to medical personnel.

SECTION 5: Fire-fighting measures	
Suitable extinguishing media	Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	No data available
Special 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)
Advice for firefighters	Excerpt from ERG Guide 129 [Flammable Liquids (Water-Miscible / Noxious)]:

SECTION 6: Accidental release measures	
Personal precautions and emergency procedures	Avoid contact with the material. Ensure adequate ventilation. Wear appropriate personal protective equipment.
Environmental precautions	Prevent uncontrolled release to drains, soil and watercourses.
Methods for containment and cleaning up	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.

SECTION 7: Handling and storage	
Precautions for safe handling	Avoid contact with skin and eyes. Avoid formation or inhalation of dust, mist or vapour as applicable. Wash thoroughly after handling.
Conditions for safe storage, including incompatibilities	Keep container tightly closed in a dry, cool and well-ventilated place; reseal opened containers and keep upright; moisture sensitive.

SECTION 8: Exposure controls/personal protection

Occupational exposure limit values	310 mg/m³
Biological limit values	No biological limit values were identified in the reviewed sources.
Appropriate engineering controls	Provide adequate ventilation. Eyewash facilities should be available where contact is possible.
Eye/face protection	Excerpt from NIOSH Pocket Guide for Methyl acetate:
Skin and body protection	Excerpt from NIOSH Pocket Guide for Methyl acetate:
Respiratory protection	Use suitable respiratory protection if exposure limits may be exceeded or dust, mist or vapour is generated.
Thermal hazards	No specific thermal hazards were identified in the reviewed sources; see Sections 5 and 10.

SECTION 9: Physical and chemical properties

Physical state	Clear colorless liquid; transparent liquid without visible impurities
Colour	Colorless, volatile liquid
Odour	Pleasant odor
Melting point / freezing point	-98°C
Boiling point / boiling range	57–58°C
Flammability	Behavior in Fire: Vapor is heavier than air and may travel a considerable distance to a source of ignition and flash back. (USCG, 1999)
Explosion / flammability limits	LEL: 3.1 % (NTP, 1992); UEL: 16 % (NTP, 1992)
Flash point	-13°C, closed cup, DIN 51755 Part 1
Auto-ignition temperature	505 °C
Decomposition temperature	No data available
pH	No data available
Viscosity	0.364 mPa.s at 25 °C
Solubility	319 g/L at 20°C
Partition coefficient n-octanol/water	0.18
Vapour pressure	217 hPa at 20°C
Density and/or relative density	0.934 g/cm3 at 25°C
Relative vapour density	2.8 (NTP, 1992) - Heavier than air; will sink (Relative to Air)
Particle characteristics	Not applicable (liquid).
Refractive index	Index of refraction: 1.3614 at 20 °C/D

SECTION 10: Stability and reactivity

Reactivity	Highly flammable. Water soluble.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	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.

SECTION 10: Stability and reactivity

Conditions to avoid	NO open flames, NO sparks and NO smoking. Closed system, ventilation, explosion-proof electrical equipment and lighting. Use non-sparking handtools. Do NOT use compressed air for filling, discharging, or handling.
Incompatible materials	Nitrates; strong oxidizers, alkalis & acids; water [Note: Reacts slowly with water to form acetic acid & methanol.]; Incompatible materials: Strong oxidizing agents.
Hazardous decomposition products	Decomposes in heat; on contact with air, bases, strong oxidizers, UV-light, casuing fire and explosion hazard.

SECTION 11: Toxicological information

Serious eye damage irritation	GHS classification: Eye irritation Category 2
Acute toxicity	LC50 Cat inhalation > 30 mg/L 10hr; LC50 Mouse inhalation > 24 mg/L 8hr; LD50 Rat dermal > 2,000 mg/kg; LC50 Rat inhalation > 49 mg/L 4hr
Toxicological summary	IDENTIFICATION AND USE: Methyl Acetate is a colorless, volatile liquid, which is used as a solvent for nitrocellulose, acetylcellulose; in many resins and oils and in the manufacture of artificial leather. It is also used in paint remover compounds, lacquer solvent, intermediate, and synthetic flavoring. HUMAN EXPOSURE AND TOXICITY: The vapor is mild irritant to the eyes and respiratory system and at high concentrations can cause CNS depression. Accidental human exposure to methyl acetate vapor for 45 minutes resulted in severe headache and somnolence lasting about 6 hr.
Health effects	· May cause toxic effects if inhaled or absorbed through skin.

SECTION 12: Ecological information

Ecotoxicity	LC50; Species: Pimephales promelas (fathead minnows); Concentration: 399 mg/L for 96 hr (confidence limit 378-422 mg/L) /Conditions of bioassay not specified/; LC50; Species: Pimephales promelas (fathead minnow); Concentration: 320 mg/L for 96 hr (confidence limit: 295-348 mg/L) /Conditions of bioassay not specified/
Persistence 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).
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).
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).
Other adverse effects	The rate constant for the vapor-phase reaction of methyl acetate with photochemically-produced hydroxyl radicals has been estimated as 2.6X10-13 cu cm/molecule-sec at 25 °C(SRC) using a structure estimation method(1). This corresponds to an atmospheric half-life of about 41 days at an atmospheric concentration of 5X10+5 hydroxyl radicals per cu cm(1).
Environmental fate	TERRESTRIAL FATE: Based on a classification scheme(1), an estimated Koc value of 9.1(SRC), determined from a log Kow of 0.18(2) and a regression-derived equation(3), indicates that methyl acetate is expected to have very high mobility in soil(SRC).

SECTION 13: Disposal considerations

Product disposal methods	Methyl acetate is a waste chemical stream constituent which may be subjected to ultimate disposal by controlled incineration.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with local regulations.

SECTION 14: Transport information	
UN Number (ADR/RID, IMDG, IATA)	1231
UN Proper Shipping Name	METHYL ACETATE
Transport hazard class(es)	3
Packing group	II
Environmental hazards / Marine pollutant	ADR/RID: no; IMDG marine pollutant: no; IATA: no
Special precautions for user	Keep containers closed and secured during transport. Follow applicable dangerous goods regulations.

SECTION 15: Regulatory information	
Safety, health and environmental regulations specific for the product	West Germany (1974): 200 ppm, East Germany (1973): 65 ppm; Czechoslovakia (1969): 65 ppm; USSR (1972): 33 ppm.

SECTION 16: Other information	
Full text of H-Statements	H225 Highly flammable liquid and vapour; H319 Causes serious eye irritation; H336 May cause drowsiness or dizziness
Revision date	2026-11-16
Version	1.0
References	Supplier technical documents, public SDS/COA/TDS and regulatory sources reviewed. Public data citations are listed below. Public data sources: PubChem Methyl Acetate (CID 6584): https://pubchem.ncbi.nlm.nih.gov/compound/6584
Abbreviations	CAS: Chemical Abstracts Service; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; SDS: Safety Data Sheet.
Disclaimer	The information in this SDS applies to the specified product and is provided in good faith based on information available to Richest Group at the date of issue. It describes health, safety and environmental requirements and does not constitute a guarantee of product properties. Users must assess suitability and comply with applicable regulations.