Kimya Resin Arak

Chemical Industrial Co.

MATERIAL SAFETY DATA SHEET

Methyl Acetate

Tel: (+98) 86-3422-4515 (Company)

Tel: (+98) 86-3823-2049 (Factory)

1. Identification

Product Name **Methyl acetate**

CAS No **79-20-9**

Synonyms **Acetic acid methyl ester, Methyl ethanoate, MeOAc, Tereton, Devoton**

Details of the supplier of the safety data sheet

Company

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2. Hazard (s) identification

Hazard Pictograms (GHS-US/CA)

Precautionary Statements

Prevention

Wash face, hands and exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/ spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closedGround/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Wear protective gloves/protective clothing/eye protection/face protection
Wear protective gloves/protective clothing/eye protection/face protection
Keep cool.

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Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwe
Skin
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing If eye irritation persists: Get medical advice/attention
Fire
In case of fire: Use CO2, dry chemical, or foam for extinction
Storage Store in a well-ventilated place. Keep container tightly closed Store locked up
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
Repeated exposure may cause skin dryness or cracking.

3. Composition/Information on Ingredients

MolecularFormula:$C3H6O2$ / CH3COOCH3
Synonyms: methyl ethanoate, acetic acid methyl ester, MeOAc, tereton, devoton, methyl ester of acetic acid, methylacetate

CAS Number: 79-20-9

Molecular Mass: 74.079 g·mol−1

Exact Mass: 74.036779 g/mol

Flashpoint: 14 °F / -10 °C

Boiling Point: 134.4 °F at 760 mm Hg / 56.8 °C

Melting Point: -144 °F / -98.0 °C

Vapour Pressure: 170 mm Hg at 68 ° F; 235 mm Hg at 77° F

Water Solubility: ~25% (20 °C)

Density: 0.932 g cm−3

Viscosity: 0.36 mPa.s at 25℃

Autoignition Temperature: 455℃ / 851°F

Vapor Density: 2.8 (Relative to Air)

Odor: Pleasant odor. Fragrant, Fruity odor

Color/ Form: Colorless, volatile liquid

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4. 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.
Inhalation	Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.
Ingestion	Clean mouth with water. Do NOT induce vomiting. Get medical attention.
Most important may symptoms and effects	Difficulty in breathing. Inhalation of high vapor concentrations cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Carbon dioxide ($CO2$). Dry chemical. Water mist may be used to cool closed containers. Chemical foam. Water mist may be used to cool closed containers.
Unsuitable Extinguishing Media	No information available
Flash Point	-10°C / 14°F
Method	No information available
Autoignition Temperature	455°C / 851°F
Explosion Limits	
Upper	16.0%
Lower	3.1%
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical 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 ($CO2$).

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) andfull protective gear.

Diamond	Hazard	Value	Description
	Health	2	Material that, under emergency condition, can cause temporary incapacitation or residual injury.
	Flammability	3	Liquids and solid that can be ignited under almost all ambient temperature conditions, Materials produce hazardous atmospheres with air under almost all ambient temperatures or, though unaffected by ambient temperatures,are readily ignited under almost all conditions.
	Instability	0	Materials that themselves are normally stable, even under fire conditions.
	Special		

6. Ecological Information

Methyl acetate's production and use as a solvent for nitrocellulose, acetylcellulose, resins and oils, in the manufacture of artificial leather; as a catalyst for the biodegradation of organic materials; as a flavoring agent useful in rum, brandy, whiskey; and as a chemical intermediate may result in its release to the environment through various waste streams. Methyl acetate occurs naturally in mint, fungus, grapes, bananas and coffee. If released to air, a vapor pressure of 216.2 mm Hg at 25 °C indicates methyl acetate will exist solely as a vapor in the atmosphere. Vapor-phase methyl acetate will be degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 41 days. Methyl acetate does not contain chromophores that absorb at wavelengths >290 nm and, therefore, is not expected to be susceptible to direct photolysis by sunlight. If released to soil, methyl acetate is expected to have very high mobility based upon an estimated Koc of 9.1. Volatilization from moist soil surfaces is expected to be an important fate process based upon a measured Henry's Law constant of 1.15X10-4 atm-cu m/mole. Methyl acetate may volatilize from dry soil surfaces based upon its vapor pressure. Methyl acetate achieved >70% after 28 days in an OECD 301D Closed bottle test, suggesting that biodegradation is an important environmental fate process in soil and water. If released into water, methyl acetate is not expected to adsorb to suspended solids and sediment based upon the estimated Koc. Volatilization from water surfaces is expected to be an important fate process based upon this compound's Henry's Law constant. Estimated volatilization half-lives for a model river and model lake are 5 hours and 5 days, respectively.

7. Handling and Storage

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.

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Storage Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keepaway from heat, sparks and flame. Flammables area. Keep container tightly closed in a dry and well-ventilated place. Incompatible Materials. Acids. Bases.

8. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions

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 (CO2)
Hazardous Polymerization No information available
Hazardous Reactions None under normal processing.

9. Toxicological Information

Acute Toxicity

Product Information
Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methyl acetate	LD50 > 5 g/kg (Rat)	LD50 > 5 g/kg (Rabbit)	LC50 > 49000 mg/m3 (Rat) 4 h

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Irritating to eyes

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as acarcinogen.

Mutagenic Effects No information available

Reproductive Effects No information available

Teratogenicity No information available

Aspiration hazard No information available

Symptoms / effects, both acute and delayed	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting
Endocrine Disruptor Information	No information availabl
Other Adverse Effects	The toxicological properties have not been fully investigated.

10. Disposal consideration

Waste Disposal Methods	Chemical waste generators must determine whether a discarded chemical is classifiedasa hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

11. Transport information

Fire or Explosion	HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Those substances designated with a (P) may polymerize explosively when heated or involved in a fire. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Many liquids are lighter than water.
Health	May cause toxic effects if inhaled or absorbed through skin. Inhalation or contact with material may irritate or burn skin and eyes. Fire will produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation. Runoff from fire control or dilution water may cause pollution.
Public Safety	CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover. As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.
Protective Clothing	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

End of MSDS

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