

Product name Methyl acetate
MSDS number 80195
Revision Number 0

Revision Date
Issuing date

NA/EN
May.01.2015
May.01.2015

1. Product and company identification

Trade Name

Methyl acetate

Celanese Ltd.

222 W. Las Colinas Blvd., Suite 900N
Irving, TX 75039
United States
Phone: 972 443 4000
Internet: www.celanese.com

Transportation emergency phone numbers:

In USA, call 800 424 9300
Outside USA, call 703 527 3887, collect calls accepted.

Identified uses

Chemical intermediate

2. Hazard Identification

GHS Classification

Hazards

Flammable liquid
Serious eye damage/eye irritation
Specific target organ systemic toxicity (single exposure)

Category

Category 2
Category 2B
Category 3 Narcotic

Label elements



Signal Word

Danger

Hazard Statements

Highly flammable liquid and vapor
Causes eye irritation
May cause drowsiness or dizziness

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Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Keep container tightly closed.
 Ground/bond container and receiving equipment.
 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 In case of fire:
 Use foam, dry chemical, carbon dioxide (CO₂), water spray to extinguish.
 Wear protective gloves/ eye protection/ face protection.
 Wash face, hands and any exposed skin thoroughly after handling.
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER or doctor if you feel unwell.
 Store locked up.
 Store in a well-ventilated place. Keep cool.
 Dispose of contents/ container to an approved waste disposal plant.

3. Composition/information on ingredients

Components	CAS-No	Percent %
Methyl acetate	79-20-9	>= 95

4. First aid measures

General Information

Remove contaminated, soaked clothing immediately and dispose of safely. Pay attention to own protection. In any case show the physician the Safety Data Sheet.

Skin

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

Eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

Inhalation

Keep at rest. Move to fresh air. Call a physician immediately.

Ingestion

If conscious, drink plenty of water. If swallowed, do not induce vomiting - seek medical advice.

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5. Fire-fighting measures

NFPA: **Health:** 2 **Flammability:** 3 **Instability:** 0

Suitable extinguishing media

Foam, Dry chemical, Carbon dioxide (CO₂), Water spray

Extinguishing media which must not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire.

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases

Under conditions giving incomplete combustion, hazardous gases produced may consist of

Carbon monoxide

Carbon dioxide (CO₂)

Vapors are heavier than air and may spread along floors

Special protective equipment for fire-fighters

self-contained breathing apparatus (EN 133).

Environmental precautions

Water streams should not be directed to the liquid, as this will cause the liquid to boil and generate more vapor. Dike and collect water used to fight fire.

Other Information

Cool containers / tanks with water spray

6. Accidental release measures

Personal precautions

Avoid contact with the skin and the eyes. Avoid breathing vapors or mists. Provide adequate ventilation. Keep away from heat and sources of ignition.

Isolation

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Isolate for 800 meters or 0.5 miles in all directions if tank, rail car, or tank truck is involved in fire. Evacuate downwind areas as conditions warrant to prevent exposure and to allow vapors or fumes to dissipate. Spills may expose downwind areas to toxic or flammable concentrations over considerable distances in some cases.

Environmental precautions

Prevent further leakage or spillage. Do not discharge into the drains/surface waters/groundwater.

Methods for 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. Dispose of in accordance with local regulations.

Authority Notification

Within the United States, call the National Response Center (800-424-8802) and appropriate state and local authorities if the quantity released over 24 hours is equal to or greater than the reportable quantity listed below:

7. Handling and storage

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7. Handling and storage

Advice on safe handling

Provide sufficient air exchange and/or exhaust in work rooms.

Protection - fire and explosion:

Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge. Ground and bond containers when transferring material. In case of fire, emergency cooling with water spray should be available.

Technical measures/Storage conditions

Keep tightly closed in a dry, cool and well-ventilated place. Handle an open container with care.

Material storage

Store locked up. Keep in a dry, cool and well-ventilated place.

Incompatible products

oxidizing agents, bases

8. Exposure controls / personal protection

OSHA Exposure Limits

Components	TWA
Methyl acetate	200 PPM

Components	STEL
Methyl acetate	250 PPM

ACGIH Exposure Limits

Components	TWA
Methyl acetate	200 PPM

Components	STEL
Methyl acetate	250 PPM

Components	2005 NIOSH IDLH
Methyl acetate	3100 PPM

Mexico National Exposure Limits

Components	LMPE - PPT	
Methyl acetate	610 mg/m ³	200 PPM

Components	STEL	
Methyl acetate	760 mg/m ³	250 PPM

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Exposure controls

Engineering measures

General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Explosion-proof equipment (for example fans, switches, and grounded ducts) should be used in mechanical ventilation systems.

Protective equipment

A safety shower and eyebath should be readily available.

General advice

Avoid contact with skin and eyes. Do not breathe vapors or spray mist. Use only in an area equipped with a safety shower. Hold eye wash fountain available.

Respiratory protection

Based on workplace contaminant level and working limits of the respirator, use a respirator approved by NIOSH. The following is the minimum recommended equipment for an occupational exposure level. To estimate an occupational exposure level see Section 8 and Section 11.

For concentrations > 1 and < 10 times the occupational exposure level: Use air-purifying respirator with full facepiece and organic vapor cartridge(s) or air-purifying full facepiece respirator with an organic vapor canister or a full facepiece powered air-purifying respirator fitted with organic vapor cartridge(s). The air purifying element must have an end of service life indicator, or a documented change out schedule must be established. Otherwise, use supplied air.

For concentrations more than 10 times the occupational exposure level and less than the lower of either 100 times the occupational exposure level or the IDLH: Use Type C full facepiece supplied-air respirator operated in positive-pressure or continuous-flow mode.

For concentrations > 100 times the occupational exposure level or greater than the IDLH level or unknown concentrations (such as in emergencies): Use self-contained breathing apparatus with full facepiece in positive-pressure mode or Type C positive-pressure full facepiece supplied-air respirator with an auxiliary positive-pressure self-contained breathing apparatus escape system.

For escape: Use self-contained breathing apparatus with full facepiece or any respirator specifically approved for escape.

Eye/face protection:

Wear chemical goggles when there is a reasonable chance of eye contact..

9. Physical and chemical properties

Appearance

Form	liquid
Color	colourless
Odor	fruity
Molecular Weight	74.08
Flash point	-13°C(8.6°F)

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9. Physical and chemical properties

Method	closed cup
Ignition temperature	454°C (849.2°F)
Lower explosion limit	3.1 Vol. %
Upper explosion limit	16 Vol. %
Melting point/range	-99°C (-146.2°F)
Boiling point/range	57°C (134.6°F) @ 1013 hPa
Density	0.93 g/ml @ 20°C
pH	neutral
Viscosity	0.364 mPa*s @ 25°C
Vapor pressure	228 hPa @ 20°C 787 hPa @ 50°C
Vapor density	2.8 (Air=1)
Water solubility	243.5 g/l @ 20°C
Partition coefficient (n-octanol/water)	0.18 (measured)

10. Stability and reactivity

Chemical stability

Stable under normal conditions of handling, use and transportation.

Conditions to avoid

Avoid any source of ignition. Avoid contact with heat, sparks, open flame, and static discharge.

Incompatible Materials

oxidizing agents
bases

Hazardous Combustion or Decomposition Products:

Thermal decomposition products may include oxides of carbon.

Possibility of hazardous reactions

Incompatible with oxidizing agents, Incompatible with bases.

11. Toxicological information

Potential health effects

Routes of exposure Skin, eyes, inhalation, ingestion.

Immediate effects

Skin	Prolonged or repeated exposure may cause: Drying, cracking or inflammation of skin.
Eyes	Causes eye irritation. Symptoms of exposure may include: Eye irritation, burning sensation, pain, watering, and/or change of vision.

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Inhalation	May cause irritation of respiratory tract. Symptoms of exposure may include: Central nervous system depression with nausea, dizziness, headache, stupor, uncoordinated or strange behavior or unconsciousness.
Ingestion	Essentially non-toxic.

Target organ effects	Overexposure (prolonged or repeated exposure) may cause: Central nervous system depression Local irritation at the site of exposure
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Medical conditions which may be aggravated by exposure:	Medical conditions which may be aggravated by exposure: Eyes Skin Central nervous system
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Methyl acetate

Acute oral toxicity	LD50: > 5000 mg/kg
Acute dermal toxicity	LD50: > 2000 mg/kg
Acute inhalation toxicity	LC50 (4h): > 49 mg/l
Skin corrosion/irritation	Not irritating
Species	rabbit
Method	OECD 404
Skin Sensitization	nonsensitizer
Serious eye damage/eye irritation	irritant
Species	rabbit eye
Method	OECD 405
in vitro Mutagenicity	Ames Test: negative - with and without metabolic activation - Method: OECD 471
in vivo Mutagenicity	Mammalian Erythrocyte Micronucleus Test in rat: negative - Method: OECD 474
Repeated exposure	No adverse effects
Routes of exposure	Inhalation
Species	rat
Method	OECD 412
	NOAEL: 1057 mg/m ³

12. Ecological Information

Methyl acetate

Acute fish toxicity	LC50: > 250 mg/l (96h)
Species:	Brachidanio rerio (zebra fish)
Method	OECD 203
Acute daphnia toxicity	EC50: > 1000 mg/l (48h)
Species:	Daphnia magna
Method	OECD 202
Toxicity to aquatic plants	EC50: > 120 mg/l (72h)

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12. Ecological Information

Species:	Desmodemus subspicatus
Method	OECD 201
Biodegradation	Readily biodegradable
Method	OECD 301 D
Other potential hazards	The substance does not meet the criteria for PBT / vPvB according to REACH, Annex XIII

13. Disposal considerations

Disposal considerations

Dispose of spilled material in accordance with state and local regulations for hazardous waste. Recommended methods are incineration or biological treatment at a federally or state-permitted disposal facility. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

Note that this handling and disposal information may also apply to empty containers, liners and rinsate. State or local regulations or restrictions are complex and may differ from federal regulations. This information is intended as an aid to proper handling and disposal; the final responsibility for handling and disposal is with the owner of the waste.

EPA Hazardous Waste Code(s): D001

14. Transport information

US Department of Transportation

UN/NA Number:	UN 1231
Proper Shipping Name	Methyl acetate
Hazard class	3
Packing Group	II
Emergency Resp. Guide	129

TDG

UN/NA Number:	UN 1231
Proper Shipping Name	METHYL ACETATE
Class:	3
Packing Group:	II

Mexico Transport Information

UN-No.	UN 1231
Proper Shipping Name	Methyl acetate
Hazard Class	3
Packing Group	II

ICAO/IATA

UN-No.	UN 1231
Proper Shipping Name	Methyl acetate
Hazard Class	3

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Packing group II

IMDG

UN/ID No. UN 1231
Proper Shipping Name Methyl acetate
Hazard Class 3
Packing group II
Marine pollutant no
EmS Code F-E, S-D

15. Regulatory Information

US State Regulations

Chemicals associated with the product which are subject to the state right-to-know regulations are listed along with the applicable state(s):

Methyl acetate 79-20-9

Pennsylvania	Listed
New Jersey	Listed
Illinois	Listed
Massachusetts	Listed
Rhode Island	Listed

California Prop. 65

WARNING: This product contains the following chemicals that are known to the State of California to cause cancer, birth defects or other reproductive harm.

Unless a concentration is specified in Section 3 of the MSDS, the chemical/s below are present in trace amounts.

Acetaldehyde (75-07-0)

U.S. FEDERAL REGULATIONS**Environmental Regulations:****Methyl acetate 79-20-9**

CERCLA Hazardous Substance Listed

SARA 311:

Acute health:	Yes
Chronic health:	No
Fire:	Yes
Sudden release of pressure:	No
Reactive:	No

INTERNATIONAL REGULATIONS

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International Inventories

Listed on the chemical inventories of the following countries or qualifies for an exemption:

Australia (AICS)
Canada (DSL)
China (IECSC)
Europe (EINECS)
Japan (ENCS)
Japan (ISHL)
Korea (KECI)
New Zealand (NZIoC)
Philippines (PICCS)
United States (TSCA)

16. Other information

NFPA: Health: 2
HMIS: Health: 2

Flammability: 3
Flammability: 3

Instability: 0
Physical Hazard: 0

Prepared By

Product Stewardship Department
Celanese

Sources of key data used to compile the datasheet

Information contained in this safety data sheet is based on Celanese owned data and public sources deemed valid or acceptable.. The absence of data elements required by ANSI or 1907/2006/EC indicates that no data meeting these requirements is available..

Other Information:

Observe national and local legal requirements

Changes against the previous version are marked by ***

This information is based on our present state of knowledge. It shall describe our products regarding safety requirements and shall not be construed as a guarantee or statement of condition and/or quality.

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Abbreviation and Acronym:

ADR = Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 CAS = Chemical Abstracts Service (division of the American Chemical Society)
 CLP = Classification, Labelling and Packaging
 DNEL = Derived No Effect Level
 EINECS = European Inventory of Existing Commercial Chemical Substances
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 ICAO = International Civil Aviation Organization
 IMDG = International Maritime Code for Dangerous Goods
 LC50 = Lethal Concentration
 LD50 = Lethal Dose
 LOAEC = Low Observed Adverse Effect Concentration
 LOAEL = Low Observed Adverse Effect Level
 LOEL = Low Observed Effect Level
 NOAEC = No Observed Adverse Effect Concentration
 NOAEL = No Observed Adverse Effect Level
 NOEC = No Observed Effect Concentration
 NOEL = No Observed Effect Level
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RCR = Risk Characterization Ratio
 RID = Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 R-Phrases = Risk Phrases
 S-Phrases = Safety Phrases
 STOT RE = Specific Target Organ Toxicity Repeated Exposure
 STOT SE = Specific Target Organ Toxicity Single Exposure
 STP = Sewage Treatment Plant
 vPvB = very Persistent and very Bioaccumulative