



SAFETY DATA SHEET METHYL ACETATE

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

1.1. Product identifier

Product name	METHYL ACETATE
Product number	641
Synonyms; trade names	ACETIC ACID METHYL ESTER, METHYL ACETIC ESTER, METHYL ETHANOATE, METHYL ACETATE 99%, METHYL ACETATE
REACH registration number	01-2119459211-47-XXXX
CAS number	79-20-9
EU index number	607-021-00-X
EC number	201-185-2

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Chemical Intermediate
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1.3. Details of the supplier of the safety data sheet

Supplier	Univar Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 sds@univar.com +44 1274 267306
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1.4. Emergency telephone number

Emergency telephone	SGS - +32 (0)3 575 55 55 (24h)
Sds No.	641

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Flam. Liq. 2 - H225
Health hazards	Eye Irrit. 2 - H319 STOT SE 3 - H336
Environmental hazards	Not Classified

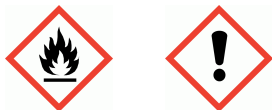
Classification (67/548/EEC or 1999/45/EC) F; R11. Xi; R36. R66, R67

2.2. Label elements

METHYL ACETATE

EC number 201-185-2

Pictogram



Signal word Danger

Hazard statements
 H225 Highly flammable liquid and vapour.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.

Precautionary statements
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P240 Ground/ bond container and receiving equipment.
 P241 Use explosion-proof electrical equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P261 Avoid breathing vapour/ spray.
 P264 Wash contaminated skin thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312 Call a POISON CENTER/ doctor if you feel unwell.
 P337+P313 If eye irritation persists: Get medical advice/ attention.
 P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.
 P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label information EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.1. Substances

Product name METHYL ACETATE

REACH registration number 01-2119459211-47-XXXX

EU index number 607-021-00-X

CAS number 79-20-9

EC number 201-185-2

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation	Remove affected person from source of contamination. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention immediately.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation	Central nervous system depression including narcotic effects such as drowsiness, narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.
Skin contact	Skin irritation.
Eye contact	Irritation of eyes and mucous membranes.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Acetic acid. Oxides of the following substances: Carbon. May explode when heated or when exposed to flames or sparks. Thermal decomposition or combustion products may include the following substances: Very toxic or corrosive gases or vapours.
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5.3. Advice for firefighters

Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Take precautionary measures against static discharges. No smoking, sparks, flames or other sources of ignition near spillage. Avoid contact with skin and eyes.
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6.2. Environmental precautions

Environmental precautions	Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Absorb spillage with inert, damp, non-combustible material. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.
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6.4. Reference to other sections

Reference to other sections	Wear protective clothing as described in Section 8 of this safety data sheet.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Keep away from heat, sparks and open flame. Eliminate all sources of ignition. Avoid inhalation of vapours.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from heat, sparks and open flame. Earth container and transfer equipment to eliminate sparks from static electricity. Keep only in the original container. Keep container tightly closed.

Storage class Flammable liquid storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Long-term exposure limit (8-hour TWA): WEL 200 ppm 616 mg/m³

Short-term exposure limit (15-minute): WEL 250 ppm 770 mg/m³

WEL = Workplace Exposure Limit

Ingredient comments WEL = Workplace Exposure Limits

DNEL

General population - Oral; Long term systemic effects: 44 mg/kg/day
 General population - Dermal; Long term systemic effects: 44 mg/kg/day
 Workers - Dermal; Long term systemic effects: 88 mg/kg/day
 General population - Inhalation; Long term local effects: 152 mg/m³
 Workers - Inhalation; Long term local effects: 305 mg/m³
 General population - Inhalation; Long term systemic effects: 131 mg/m³
 Workers - Inhalation; Long term systemic effects: 610 mg/m³

PNEC

- Fresh water; 0.12 mg/l
 - Intermittent release; 1.2 mg/l
 - Marine water; 0.012 mg/l
 - Sediment (Freshwater); 0.128 mg/kg
 - Sediment (Marinewater); 0.0128 mg/kg
 - Soil; 0.0416 mg/kg
 - STP; 600 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

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Hand protection	The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. The selected gloves should have a breakthrough time of at least 4 hours. Butyl rubber. glove thickness > 0.7mm To protect hands from chemicals, gloves should comply with European Standard EN374.
Other skin and body protection	Wear rubber apron. Wear rubber footwear. Provide eyewash station and safety shower.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid. Volatile liquid.
Colour	Colourless.
Odour	Ester.
Odour threshold	4.6 ppm
pH	pH (concentrated solution): 7
Melting point	-99°C
Initial boiling point and range	56 - 58°C @ 760 mm Hg
Flash point	-13°C CC (Closed cup).
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 3.1 % Upper flammable/explosive limit: 16 %
Other flammability	No information available.
Vapour pressure	228 hPa @ 20°C
Vapour density	2.8
Relative density	0.93 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	243.5 g/l water @ 20°C Soluble in water. Miscible with the following materials: Alcohols. Ether.
Partition coefficient	log Pow: 0.18
Auto-ignition temperature	454°C
Decomposition Temperature	No information available.
Viscosity	0.364 mPa s @ 25°C
Explosive properties	No information available.
Explosive under the influence of a flame	No information available.
Oxidising properties	No information available.

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9.2. Other information

Molecular weight 74.09

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not determined.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid Strong acids. Strong alkalis. Strong oxidising agents. Inorganic nitrates.

10.6. Hazardous decomposition products

Hazardous decomposition products Acetic acid. Oxides of the following substances: Carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,000.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rat

Notes (dermal LD₅₀) OECD 402

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 49.0

Species Rat

ATE inhalation (vapours mg/l) 49.0

Skin corrosion/irritation

Animal data Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

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Respiratory sensitisation	No information available.
<u>Skin sensitisation</u>	
Skin sensitisation	No information available.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	No information available.
<u>Carcinogenicity</u>	
Carcinogenicity	No information available.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	No information available.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	No information available.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Based on available data the classification criteria are not met.
<u>Aspiration hazard</u>	
Aspiration hazard	Not available.
<u>Inhalation</u>	
Inhalation	Irritating to respiratory system. Vapours have a narcotic effect. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.
<u>Ingestion</u>	
Ingestion	May cause stomach pain or vomiting. Narcotic effect. Drowsiness, dizziness, disorientation, vertigo.
<u>Skin contact</u>	
Skin contact	Slightly irritating.
<u>Eye contact</u>	
Eye contact	Irritating to eyes.
<u>Acute and chronic health hazards</u>	
Acute and chronic health hazards	Gas or vapour is harmful on prolonged exposure or in high concentrations. This product is corrosive. This product may cause skin and eye irritation. Prolonged contact may cause burns. Symptoms following overexposure may include the following: Irritation of eyes and mucous membranes. Toxic in contact with skin. Narcotic effect. A single exposure may cause the following adverse effects: Central nervous system depression. Prolonged or repeated exposure may cause severe irritation.
<u>Route of entry</u>	
Route of entry	Inhalation Ingestion. Skin and/or eye contact
<u>Target organs</u>	
Target organs	Central nervous system Eyes Heart & cardiovascular system Respiratory system, lungs Skin
<u>Medical symptoms</u>	
Medical symptoms	Severe irritation, burning and tearing. Dilated pupils. Rhinitis (inflammation of the nasal mucous membranes). Upper respiratory irritation. General respiratory distress, unproductive cough. May cause suffocation. Severe skin irritation. Nausea, vomiting. Unconsciousness, possibly death. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Behavioural changes. Hypotension (low blood pressure). Dizziness.

SECTION 12: Ecological Information

Ecotoxicity	The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.
<u>12.1. Toxicity</u>	
Acute toxicity - fish	LC50, 96 hours: > 250 mg/l, Brachydanio rerio (Zebra Fish) OECD 203

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Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: > 1000 mg/l, Daphnia magna OECD 202
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: > 120 mg/l, Scenedesmus subspicatus OECD 201

12.2. Persistence and degradability

Persistence and degradability The product is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient log Pow: 0.18

12.4. Mobility in soil

Mobility The product is soluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	When handling waste, the safety precautions applying to handling of the product should be considered. Do not puncture or incinerate, even when empty.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General Wear protective clothing as described in Section 8 of this safety data sheet.

14.1. UN number

UN No. (ADR/RID)	1231
UN No. (IMDG)	1231
UN No. (ICAO)	1231
UN No. (ADN)	1231

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	METHYL ACETATE
Proper shipping name (IMDG)	METHYL ACETATE
Proper shipping name (ICAO)	METHYL ACETATE
Proper shipping name (ADN)	METHYL ACETATE

14.3. Transport hazard class(es)

ADR/RID class	3
ADR/RID classification code	F1

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ADR/RID label	3
IMDG class	3
ICAO class/division	3
ADN class	3

Transport labels



14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ADN packing group	II
ICAO packing group	II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-E, S-D
ADR transport category	2
Emergency Action Code	•2YE
Hazard Identification Number (ADR/RID)	33
Tunnel restriction code	(D/E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not determined.

SECTION 15: Regulatory information

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

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. This product may impact SEVESO storage regulations.
Inventory Information	AICS TSCA DSL EINECS NZIOC PICCS IECS ENCS KECL

15.2. Chemical safety assessment

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A chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	ATE: Acute Toxicity Estimate. ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. CAS: Chemical Abstracts Service. DNEL: Derived No Effect Level. IATA: International Air Transport Association. IMDG: International Maritime Dangerous Goods. Kow: Octanol-water partition coefficient. LC₅₀: Lethal Concentration to 50 % of a test population. LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose). PBT: Persistent, Bioaccumulative and Toxic substance. PNEC: Predicted No Effect Concentration. REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. vPvB: Very Persistent and Very Bioaccumulative. IARC: International Agency for Research on Cancer. MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. cATpE: Converted Acute Toxicity Point Estimate. BCF: Bioconcentration Factor. BOD: Biochemical Oxygen Demand. EC₅₀: 50% of maximal Effective Concentration. LOAEC: Lowest Observed Adverse Effect Concentration. LOAEL: Lowest Observed Adverse Effect Level. NOAEC: No Observed Adverse Effect Concentration. NOAEL: No Observed Adverse Effect Level. NOEC: No Observed Effect Concentration. LOEC: Lowest Observed Effect Concentration. DMEL: Derived Minimal Effect Level. EL50: Exposure Limit 50 hPa: Hectopascal LL50: Lethal Loading fifty OECD: Organisation for Economic Co-operation and Development POW: Octanol-water partition coefficient SCBA: self-contained breathing apparatus STP: Sewage Treatment Plant VOC: Volatile Organic Compounds
Classification abbreviations and acronyms	Acute Tox. = Acute toxicity Aquatic Acute = Hazardous to the aquatic environment (acute) Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Key literature references and sources for data	Supplier's information.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	06/04/2017

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Revision	02
Supersedes date	25/05/2011
SDS number	641
Version number	2.000
SDS status	Approved.
Signature	Lisa Bland
Risk phrases in full	R11 Highly flammable. R36 Irritating to eyes. R66 Repeated exposure may cause skin dryness or cracking. R67 Vapours may cause drowsiness and dizziness.
Hazard statements in full	H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.