Ethyl acetate

Safety Data Sheet

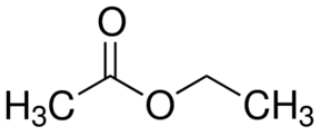
according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc. No: SDS-920.013/2

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

1.1. Product identifier

Product form	:	Substance
Substance name	:	Ethyl acetate
EC Index-No.	:	607-022-00-5
EC-No.	:	205-500-4
CAS-No.	:	141-78-6
Type of product	:	Pure substance
Formula	:	$C_4H_8O_2$
Chemical structure	:	
Synonyms	:	acetic acid ethyl ester / acetic ester / acetic ether / acetidin / acetoxyethane / acetyl ester / ether of vinegar / Ethyl acetate / ethyl acetate acetic ether / ethyl acetic ester / ethyl acetic ester acetidin / ethyl ethanoate / protein sequencer reagent S2 / protein sequencer reagent S2B / vinegar naphtha

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Solvent
Chemical raw material
Laboratory chemical
Food industry: additive

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ISOLAB Laborgeräte GmbH
Am Dillhof 2 - 63863 Eschau / GERMANY
Tel: + 49 93 74 / 978 55-0
Fax: +49 93 74 / 978 55-29
prodsafe@isolab.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Germany	Giftnotruf der Charité CBF, Haus VIII (Wirtschaftgebäude), UG	Hindenburgdamm 30 12203 Berlin	+49 30 19240	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225

Eye Irrit. 2 H319

STOT SE 3 H336

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS02 GHS07

Signal word (CLP)	:	Danger
Hazard statements (CLP)	:	H225 - Highly flammable liquid and vapour H319 - Causes serious eye irritation H336 - May cause drowsiness or dizziness
Precautionary statements (CLP)	:	P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking P240 - Ground/bond container and receiving equipment. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P403+233 - Store in a well-ventilated place, Keep container tightly closed.
EUH-statements	:	EUH066 - Repeated exposure may cause skin dryness or cracking

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%
Ethyl acetate	(CAS-No.) 141-78-6 (EC-No.) 205-500-4 (EC Index-No.) 607-022-00-5	100

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	:	Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give alcohol to drink.
First-aid measures after inhalation	:	Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	:	Wash immediately with lots of water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	:	Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	:	Rinse mouth with water. Do not induce vomiting. Give activated charcoal. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Doctor: gastric lavage. Ingestion of large quantities: immediately to hospital.

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

Symptoms/effects after inhalation	:	EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Central nervous system depression. Dizziness. Headache. Narcosis. Disturbances of consciousness. Change in the haemogramme/blood composition.
Symptoms/effects after skin contact	:	ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.
Symptoms/effects after eye contact	:	Irritation of the eye tissue. Lacrimation.
Symptoms/effects after ingestion	:	Risk of aspiration pneumonia. AFTER ABSORPTION OF HIGH QUANTITIES: Nausea. Vomiting. Central nervous system depression. Symptoms similar to those listed under inhalation.
Chronic symptoms	:	ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Tingling/irritation of the skin. Itching. Skin rash/inflammation. Change in the haemogramme/blood composition. Loss of appetite. Enlargement/affection of the liver. Affection of the renal tissue.

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

No additional information available

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Preferably: alcohol resistant foam. Polyvalent foam. Polymer foam. BC powder. Carbon dioxide. Sand/earth.

Unsuitable extinguishing media : Solid water jet ineffective as extinguishing medium.

5.2. Special hazards arising from the substance or mixture

Fire hazard : DIRECT FIRE HAZARD. Highly flammable. Gas/vapour flammable with air within explosion limits. INDIRECT FIRE HAZARD. May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard. Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion hazard : DIRECT EXPLOSION HAZARD. Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".

5.3. Advice for firefighters

Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Dilute toxic gases with water spray.

Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Protective goggles. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. See "Material-Handling" to select protective clothing.

Emergency procedures : Keep upwind. Mark the danger area. Consider evacuation. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment. Keep containers closed. Wash contaminated clothes.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute/disperse combustible gas/vapour with water curtain. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills.

Methods for cleaning up : Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle uncleaned empty containers as full ones. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Observe normal hygiene standards. Keep container tightly closed. Measure the concentration in the air regularly. Work under local exhaust/ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.

Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents. (strong) acids. (strong) bases. peroxides. water/moisture.

Storage area : Store in a cool area. Store in a dry area. Store in a dark area. Keep out of direct sunlight. Ventilation at floor level. Fireproof storeroom. Provide for an automatic sprinkler system. Provide for a tub to collect spills. Provide the tank with earthing. Meet the legal requirements.

Special rules on packaging : SPECIAL REQUIREMENTS: hermetical. dry. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: stainless steel. carbon steel. iron. aluminium. copper. nickel. polypropylene. glass. tin. MATERIAL TO AVOID: plastics.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ethyl acetate (141-78-6)		
EU	Local name	Ethyl acetate
EU	IOELV TWA (mg/m³)	734 mg/m³
EU	IOELV TWA (ppm)	200 ppm
EU	IOELV STEL (mg/m³)	1468 mg/m³
EU	IOELV STEL (ppm)	400 ppm
Austria	Local name	Ethylacetat
Austria	MAK (mg/m³)	1050 mg/m³
Austria	MAK (ppm)	300 ppm
Austria	MAK Short time value (mg/m³)	2100 mg/m³
Austria	MAK Short time value (ppm)	600 ppm
Belgium	Local name	Acétate d'éthyle # Ethylacetaat
Belgium	Limit value (mg/m³)	1461 mg/m³ (Acétate d'éthyle; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	400 ppm (Acétate d'éthyle; Belgium; Time-weighted average exposure limit 8 h)
Bulgaria	Local name	Етилацетат
Bulgaria	OEL TWA (mg/m³)	800 mg/m³
Croatia	Local name	Etil-acetat
Croatia	GVI (granična vrijednost izloženosti) (ppm)	200 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	400 ppm
Croatia	Naznake (HR)	F (lako zapaljivo); Xi (nadražujuće)
Czech Republic	Local name	Ethylacetát
Czech Republic	Expoziční limity (PEL) (mg/m³)	700 mg/m³
Czech Republic	Expoziční limity (PEL) (ppm)	195 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m³)	900 mg/m³
Czech Republic	Expoziční limity (NPK-P) (ppm)	250 ppm
Denmark	Local name	Ethylacetat (Eddikesyreethylester)
Denmark	Grænseværdie (langvarig) (mg/m³)	540 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	150 ppm
Estonia	Local name	Etüülatsetaat (etüületanaat)
Estonia	OEL TWA (mg/m³)	500 mg/m³
Estonia	OEL TWA (ppm)	150 ppm
Estonia	OEL STEL (mg/m³)	1100 mg/m³
Estonia	OEL STEL (ppm)	300 ppm
Finland	Local name	Etyyliasetaatti
Finland	HTP-arvo (8h) (mg/m³)	1100 mg/m³
Finland	HTP-arvo (8h) (ppm)	300 ppm
Finland	HTP-arvo (15 min)	1800 mg/m³
Finland	HTP-arvo (15 min) (ppm)	500 ppm
France	Local name	Acétate d'éthyle
France	VME (mg/m³)	1400 mg/m³ (Acétate d'éthyle; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
France	VME (ppm)	400 ppm (Acétate d'éthyle; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
France	Note (FR)	Valeurs recommandées/admises

Ethyl acetate (141-78-6)		
Germany	Local name	Ethylacetat
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	1500 mg/m³
Germany	TRGS 900 Occupational exposure limit value (ppm)	400 ppm
Germany	Remark (TRGS 900)	DFG,Y
Greece	OEL TWA (mg/m³)	1400 mg/m³
Greece	OEL TWA (ppm)	400 ppm
Hungary	Local name	ETIL-ACETÁT
Hungary	AK-érték	1400 mg/m³
Hungary	CK-érték	1400 mg/m³
Hungary	Megjegyzések (HU)	i, sz; I.
Ireland	Local name	Ethyl acetate
Ireland	OEL (8 hours ref) (ppm)	200 ppm
Ireland	OEL (15 min ref) (ppm)	400 ppm
Latvia	Local name	Etiķskābesetilesteris (etilacetāts)
Latvia	OEL TWA (mg/m³)	200 mg/m³
Lithuania	Local name	Etilo acetatas
Lithuania	IPRV (mg/m³)	500 mg/m³
Lithuania	IPRV (ppm)	150 ppm
Lithuania	NRV (mg/m³)	1100 mg/m³
Lithuania	NRV (ppm)	300 ppm
Poland	Local name	Octan etylu
Poland	NDS (mg/m³)	200 mg/m³
Poland	NDSCh (mg/m³)	600 mg/m³
Portugal	Local name	Acetato de etilo
Portugal	OEL TWA (ppm)	400 ppm
Romania	Local name	Acetat de etil
Romania	OEL TWA (mg/m³)	400 mg/m³
Romania	OEL TWA (ppm)	111 ppm
Romania	OEL STEL (mg/m³)	500 mg/m³
Romania	OEL STEL (ppm)	139 ppm
Slovakia	Local name	Etylacetát (octan etylový)
Slovakia	NPHV (priemerná) (mg/m³)	500 mg/m³
Slovakia	NPHV (priemerná) (ppm)	150 ppm
Slovakia	OEL STEL (mg/m³)	1100 mg/m³
Slovakia	OEL STEL (ppm)	300 ppm
Slovenia	Local name	etilacetat
Slovenia	OEL TWA (mg/m³)	1400 mg/m³
Slovenia	OEL TWA (ppm)	400 ppm
Slovenia	OEL STEL (mg/m³)	1400 mg/m³
Slovenia	OEL STEL (ppm)	400 ppm
Spain	Local name	Acetato de etilo
Spain	VLA-ED (mg/m³)	1460 mg/m³
Spain	VLA-ED (ppm)	400 ppm
Sweden	Local name	Etylacetat
Sweden	nivågränsvärde (NVG) (mg/m³)	550 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	150 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	1100 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	300 ppm

Ethyl acetate (141-78-6)		
Sweden	Anmärkning (SE)	V (Vägledande korttidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas)
United Kingdom	Local name	Ethyl acetate
United Kingdom	WEL TWA (ppm)	200 ppm Ethyl acetate; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	400 ppm Ethyl acetate; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
Iceland	Local name	Etýlasetat (ediksúruetýlester)
Iceland	OEL (8 hours ref) (mg/m³)	540 mg/m³
Iceland	OEL (8 hours ref) (ppm)	150 ppm
Russian Federation	Local name	Этилацетат
Russian Federation	OEL Ceiling (mg/m³)	200 mg/m³
Russian Federation	OEL TWA (mg/m³)	50 mg/m³
Russian Federation	Remark (RU)	4 класс опасности - умеренно опасное; п (пары и/или газы)
Norway	Local name	Etylacetat
Norway	Grenseverdier (AN) (mg/m³)	550 mg/m³
Norway	Grenseverdier (AN) (ppm)	150 ppm
Switzerland	Local name	Essigsäureethylester (s. Ethylacetat)
Switzerland	VME (mg/m³)	1400 mg/m³ 1400 mg/m³
Switzerland	VME (ppm)	400 ppm 400 ppm
Switzerland	VLE (mg/m³)	2800 mg/m³ 2800 mg/m³
Switzerland	VLE (ppm)	800 ppm 800 ppm
Switzerland	Remark (CH)	SS_C - $OAW^{KT\ HU}$ & $Auge^{KT\ HU}$ - INRS, NIOSH
Australia	Local name	Ethyl acetate
Australia	TWA (mg/m³)	720 mg/m³ Synonym (Acetic acid ethyl ester; Acetic ester)
Australia	TWA (ppm)	200 ppm Synonym (Acetic acid ethyl ester; Acetic ester)
Australia	STEL (mg/m³)	1440 mg/m³ Synonym (Acetic acid ethyl ester; Acetic ester)
Australia	STEL (ppm)	400 ppm Synonym (Acetic acid ethyl ester; Acetic ester)
USA - ACGIH	Local name	Ethyl acetate
USA - ACGIH	ACGIH TWA (ppm)	400 ppm (Ethyl acetate; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA - ACGIH	Remark (ACGIH)	URT & eye irr
USA - OSHA	Local name	Ethyl acetate
USA - OSHA	OSHA PEL (TWA) (mg/m³)	1400 mg/m³
USA - OSHA	OSHA PEL (TWA) (ppm)	400 ppm

8.2. Exposure controls

Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: polyethylene/ethylenevinylalcohol. GIVE GOOD RESISTANCE: PVA. GIVE LESS RESISTANCE: butyl rubber. GIVE POOR RESISTANCE: neoprene. natural rubber. nitrile rubber. polyethylene. PVC. viton

Hand protection:

Gloves

Eye protection:

Safety glasses

Skin and body protection:

Head/neck protection. Protective clothing

Respiratory protection:

Wear gas mask with filter type A if conc. in air > exposure limit

Device	Filter type	Condition	Standard
Gas mask	Type A - High-boiling (>65 °C) organic compounds	If conc. in air > exposure limit	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid.
Molecular mass	:	88.11 g/mol
Colour	:	Colourless.
Odour	:	Fruity odour.
Odour threshold	:	6 - 75 ppm 22 - 270 mg/m³
pH	:	Not applicable
Relative evaporation rate (butylacetate=1)	:	4.1
Relative evaporation rate (ether=1)	:	2.4
Melting point	:	-83 °C
Freezing point	:	No data available
Boiling point	:	77 °C (1013 hPa)
Flash point	:	-4 °C (Closed cup; 1013 hPa)
Critical temperature	:	250 °C
Auto-ignition temperature	:	427 °C (1013 hPa)
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	97 hPa (20 °C)
Critical pressure	:	38500 hPa
Relative vapour density at 20 °C	:	3
Relative density	:	0.9
Relative density of saturated gas/air mixture	:	1.2
Density	:	0.90 g/cm³ (20 °C)
Solubility	:	Moderately soluble in water. Soluble in ethanol. Soluble in ether. Soluble in acetone. Soluble in chloroform. Soluble in dimethyl sulfoxide. Soluble in oils/fats. Water: 8.53 g/100ml (25 °C)
Log Pow	:	0.68 (Experimental value; EPA OPPTS 830.7560; 25 °C)
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	2.1 - 11.5 vol %

9.2. Other information

Minimum ignition energy	:	0.46 mJ
Specific conductivity	:	> 0.1 µS/m
Saturation concentration	:	350 g/m³
VOC content	:	100 %

Other properties : Gas/vapour heavier than air at 20°C. Clear. Volatile. Substance has neutral reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

Decomposes slowly on exposure to light, on exposure to air, on exposure to water (moisture) and on exposure to temperature rise: release of corrosive products (acetic acid vapours) and release of highly flammable gases/vapours (ethanol). Upon combustion: CO and CO2 are formed. Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion. Violent exothermic reaction with (some) acids.

10.2. Chemical stability

Unstable on exposure to light. Unstable on exposure to moisture. Unstable on exposure to air.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Ethyl acetate (141-78-6)	
LD50 oral rat	5620 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value; 10200 mg/kg bodyweight; Rat)
LD50 dermal rabbit	> 18000 mg/kg (Rabbit; Experimental value; 24 hour cuff method; >20000 mg/kg bodyweight; Rabbit)
LC50 inhalation rat (mg/l)	70.56 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	19600 ppm/4h (Rat)

Skin corrosion/irritation : Not classified
pH: Not applicable

Serious eye damage/irritation : Causes serious eye irritation.
pH: Not applicable

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not classified as dangerous for the environment according to the criteria of Directive 67/548/EEC. Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006). TA-Luft Klasse 5.2.5.

Ecology - water : Ground water pollutant. Slightly harmful to fishes (LC50(96h) 100-1000 mg/l). Slightly harmful to invertebrates (Daphnia) (EC50 (48h): 100 - 1000 mg/l). Not harmful to algae (EC50 >1000 mg/l). Practically non-toxic to bacteria (EC50 >100 mg/l). Taste alteration in fishes/aquatic organisms. Nitrification of activated sludge is inhibited.

Ethyl acetate (141-78-6)	
LC50 fish 2	230 mg/l (LC50; US EPA; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 2	154 mg/l (EC50; 48 h; Daphnia magna)

12.2. Persistence and degradability

Ethyl acetate (141-78-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	0.293 g O_2/g substance
Chemical oxygen demand (COD)	1.69 g O_2/g substance
ThOD	1.82 g O_2/g substance

12.3. Bioaccumulative potential

Ethyl acetate (141-78-6)	
BCF fish 1	30 (BCF; 3 days; Leuciscus idus; Static system)
Log Pow	0.68 (Experimental value; EPA OPPTS 830.7560; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

Ethyl acetate (141-78-6)	
Surface tension	0.024 N/m (20 °C)

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Avoid discharge of large amounts into the sewer. Treat using the best available techniques before discharge into drains or the aquatic environment. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Additional information : LWCA (the Netherlands): KGA category 03. Hazardous waste according to Directive 2008/98/EC.

European List of Waste (LoW) code : 07 01 04* - other organic solvents, washing liquids and mother liquors

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1173	1173	1173	1173	1173
14.2. UN proper shipping name				
ETHYL ACETATE	ETHYL ACETATE	Ethyl acetate	ETHYL ACETATE	ETHYL ACETATE
Transport document description				
UN 1173 ETHYL ACETATE, 3, II, (D/E)	UN 1173 ETHYL ACETATE, 3, II (-4°C c.c.)	UN 1173 Ethyl acetate, 3, II	UN 1173 ETHYL ACETATE, 3, II	UN 1173 ETHYL ACETATE, 3, II
14.3. Transport hazard class(es)				
3	3	3	3	3
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the	Dangerous for the	Dangerous for the	Dangerous for the	Dangerous for the

ADR	IMDG	IATA	ADN	RID
environment : No	environment : No Marine pollutant : No	environment : No	environment : No	environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Classification code (ADR)	:	F1
Limited quantities (ADR)	:	1l
Excepted quantities (ADR)	:	E2
Packing instructions (ADR)	:	P001, IBC02, R001
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T4
Portable tank and bulk container special provisions (ADR)	:	TP1
Tank code (ADR)	:	LGBF
Vehicle for tank carriage	:	FL
Transport category (ADR)	:	2
Special provisions for carriage - Operation (ADR)	:	S2, S20
Hazard identification number (Kemler No.)	:	33
Orange plates	:	33 1173
Tunnel restriction code (ADR)	:	D/E

- Transport by sea

Transport regulations (IMDG)	:	Subject
Limited quantities (IMDG)	:	1 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
IBC packing instructions (IMDG)	:	IBC02
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP1
EmS-No. (Fire)	:	F-E
EmS-No. (Spillage)	:	S-D
Stowage category (IMDG)	:	B
Flash point (IMDG)	:	-4°C c.c.
Properties and observations (IMDG)	:	Colourless liquid with a fragrant odour. Flashpoint: -4°C c.c. Explosive limits: 2.18% to 11.5% Immiscible with water.
MFAG-No	:	129

- Air transport

Transport regulations (IATA)	:	Subject to the provisions
PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y341
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	353
PCA max net quantity (IATA)	:	5L
CAO packing instructions (IATA)	:	364
CAO max net quantity (IATA)	:	60L
ERG code (IATA)	:	3L

- Inland waterway transport

Classification code (ADN)	:	F1
Limited quantities (ADN)	:	1 L

Excepted quantities (ADN)	:	E2
Carriage permitted (ADN)	:	T
Equipment required (ADN)	:	PP, EX, A
Ventilation (ADN)	:	VE01
Number of blue cones/lights (ADN)	:	1

- Rail transport

Transport regulations (RID)	:	Subject
Classification code (RID)	:	F1
Limited quantities (RID)	:	1L
Excepted quantities (RID)	:	E2
Packing instructions (RID)	:	P001, IBC02, R001
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T4
Portable tank and bulk container special provisions (RID)	:	TP1
Tank codes for RID tanks (RID)	:	LGBF
Transport category (RID)	:	2
Colis express (express parcels) (RID)	:	CE7
Hazard identification number (RID)	:	33

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Ethyl acetate is not on the REACH Candidate List

Ethyl acetate is not on the REACH Annex XIV List

VOC content	:	100 %

15.1.2. National regulations

Germany

VwVwS Annex reference	:	Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 1 or 2; ID No. 95)
WGK remark	:	Classification water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 2)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	:	Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen	:	The substance is not listed
SZW-lijst van mutagene stoffen	:	The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	:	The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	:	The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	:	The substance is not listed

Denmark

Classification remarks	:	Emergency management guidelines for the storage of flammable liquids must be followed
Recommendations Danish Regulation	:	Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail

Data sources : 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
EUH066	Repeated exposure may cause skin dryness or cracking

SDS ISOLAB

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product