Ethyl acetate

34858-1L

Version 2.3 Revision Date 17.12.2022 Supersedes 1

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

1.1. Product identifier

Product name	:	Ethyl acetate
SDS-number	:	000000020226
Type of product	:	Substance
Remarks	:	SDS according to Art. 31 of Regulation (EC) 1907/2006.
Chemical name	:	ethyl acetate
Index-No.	:	607-022-00-5
REACH Registration Number	:	no data available

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

Use of the Substance/Mixture	:	Laboratory chemicals
Uses advised against	:	none

1.3. Details of the supplier of the safety data sheet

Company	:	Honeywell International Inc. 115 Tabor Road 07950-2546 Morris Plains USA	Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
Telephone	:		
For further information, please contact:	:	SafetyDataSheet@Honeywell.com	

1.4. Emergency telephone number

Emergency telephone number	:	+1-703-527-3887 (ChemTrec-Transport) +1-303-389-1414 (Medical)
Country based Poison Control Center	:	see chapter 15.1

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Flammable liquids Category 2
H225 Highly flammable liquid and vapour.
Eye irritation Category 2
H319 Causes serious eye irritation.
Specific target organ toxicity - single exposure Category 3 - Central nervous system
H336 May cause drowsiness or dizziness.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms :

Signal word : Danger

Hazard statements :	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.
Precautionary statements :	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P243	Take precautionary measures against static discharge.
	P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
	P280	Wear protective gloves/ eye protection/ face protection.
	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.

P308 + P313	Continue rinsing. IF exposed or concerned: Get medical advice/ attention.

2.3. Other hazards

Aspiration hazard if swallowed - can enter lungs and cause damage. May form explosive mixtures in air.
Results of PBT and vPvB assessment, see chapter 12.5.

SECTION 3: Composition/information on ingredients

3.1. Substance

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
ethyl acetate	141-78-6 607-022-00-5 205-500-4	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336; Central nervous system EUH066	100 %	

3.2. Mixture

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:
First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.

Inhalation:
In case of accident by inhalation: remove casualty to fresh air and keep at rest. If symptoms persist, call a physician.

Skin contact:
After contact with skin, wash immediately with plenty of soap and water. Call a physician if irritation develops or persists.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids. Protect unharmed eye. Call a physician immediately.

Ingestion:
When swallowed, allow water to be drunk. Do NOT induce vomiting. Call a physician immediately.

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

No data available

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

No data available

See Section 11 for more detailed information on health effects and symptoms. :

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water spray
Foam
Carbon dioxide (CO2)
Dry powder

Extinguishing media which shall not be used for safety reasons:
High volume water jet

5.2. Special hazards arising from the substance or mixture

Flash back possible over considerable distance.
Cool closed containers exposed to fire with water spray.
In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide
Carbon dioxide (CO2)

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Evacuate personnel to safe areas. Do not breathe vapours or spray mist. Remove all sources of ignition.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so.

6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

Pick for disposal in tightly closed containers
Use low-sparking handtools and explosion-proof electrical equipment

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:
Exhaust ventilation at the object is necessary. Use explosion-proof equipment.

Advice on protection against fire and explosion:
The product is easily combustible. Vapours may form explosive mixtures with air. Flash back possible over considerable distance. Labeling danger zone "risk of explosion". Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep product and empty container away from heat and sources of ignition.

Hygiene measures:
Recommended preventive skin protection Keep working clothes separately. General industrial hygiene practice.

Temperature class:
T2

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions:
Keep only in the original container in a cool, well-ventilated place. Keep container dry. Do not leave vessels/containers open Keep away from heat. Keep away from direct sunlight.

Advice on common storage:
Do not store together with: Oxidizing agents Acids Bases

7.3. Specific end use(s)

no additional data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Components	Basis / Value type	Value / Form of exposure	Exceeding Factor	Remarks
ethyl acetate	EH40 WEL STEL	400 ppm		
ethyl acetate	EH40 WEL TWA	200 ppm		
ethyl acetate	EU ELV STEL	1.468 mg/m3 400 ppm		Indicative
ethyl acetate	EU ELV TWA	734 mg/m3 200 ppm		Indicative
ethyl acetate	EH40 WEL STEL	1.468 mg/m3 400 ppm		
ethyl acetate	EH40 WEL TWA	734 mg/m3 200 ppm		

STEL - Short term exposure limit
TWA - Time weighted average

DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
ethyl acetate	Workers / Acute systemic effects		1468 mg/m3	Inhalation	
ethyl acetate	Workers / Acute local effects		1468 mg/m3	Inhalation	
ethyl acetate	Workers / Long-term systemic effects		734 mg/m3	Inhalation	
ethyl acetate	Workers / Long-term		63mg/kg bw/d	Skin contact	

	systemic effects				
ethyl acetate	Workers / Long-term local effects		734 mg/m3	Inhalation	
ethyl acetate	Consumers / Acute systemic effects		734 mg/m3	Inhalation	
ethyl acetate	Consumers / Acute local effects		734 mg/m3	Inhalation	
ethyl acetate	Consumers / Long-term systemic effects		367 mg/m3	Inhalation	
ethyl acetate	Consumers / Long-term local effects		367 mg/m3	Inhalation	
ethyl acetate	Consumers / Long-term systemic effects		37mg/kg bw/d	Skin contact	

Component	Environmental compartment / Value	Remarks
ethyl acetate	Fresh water: 0,26 mg/l	
ethyl acetate	Soil: 0,22 mg/kg	
ethyl acetate	Sewage treatment plant: 650 mg/l	
ethyl acetate	Sediment: 0,34 mg/kg	

8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.
Take off all contaminated clothing immediately.

Personal protective equipment
Respiratory protection:
In the case of vapour formation use a respirator with an approved filter.

Hand protection:
Glove material: butyl-rubber
Break through time: > 120 min
Glove thickness: 0,7 mm
Butoject® 898
Gloves must be inspected prior to use.
Replace when worn.
Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.
Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.
Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer reccomends to use the chemical protective glove in practice not longer than 50% of the recomended permeation time.
Manufacturer´s directions for use should be observed because of great diversity of types .
Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

Eye protection:
Safety goggles

Skin and body protection:
Wear suitable protective equipment.
Flame retardant antistatic protective clothing.
Working clothes must not consist of textiles, which show a dangerous melting behaviour in case of fire.

Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	liquid
Colour	:	colourless
Odour	:	characteristic fruity
Melting point/range	:	-84 °C
Boiling point/boiling range	:	77 °C at 1.013 hPa
Flammability	:	Not applicable
Upper explosion limit	:	11,5 %(V)
Lower explosion limit	:	2,1 %(V)
Flash point	:	-4 °C Method: closed cup
Auto-ignition temperature	:	427 °C
Decomposition temperature	:	At normal pressure may be distilled without decomposition.
pH	:	No data available
Viscosity, kinematic	:	not determined
Water solubility	:	ca. 80 g/l at 20 °C
Solubility in other solvents	:	Soluble in most organic solvents
Partition coefficient: n-	:	log Pow 0,68

octanol/water

Vapour pressure	:	ca. 100 hPa at 20 °C
Vapour pressure	:	379 hPa at 50 °C
Density	:	0,902 g/cm3 at 20 °C
Relative vapour density	:	ca. 3 (Air = 1.0)

9.2 Other Information

Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Viscosity, dynamic	:	ca. 0,45 mPa.s at 20 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

At normal pressure may be distilled without decomposition.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixture with air.

10.4. Conditions to avoid

Keep away from heat and sources of ignition.
Keep away from direct sunlight.

10.5. Incompatible materials

Vapours may form explosive mixtures with air.
Plastic materials can be attacked.
Explosive reactions with oxidising agents such as potassium chlorate and/or peroxides.

10.6. Hazardous decomposition products

Acetic acid
Flammable gases/vapours

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:
LD50
Species: Rabbit
Value: 4.934 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity:
LD50
Species: Rabbit
Value: > 18.000 mg/kg

Acute inhalation toxicity:
LC50
Species: Rat
Value: 56 mg/l
Exposure time: 4 h

Skin irritation:
Species: Rabbit
Classification: non-irritant
Method: OECD Test Guideline 404

Eye irritation:
Species: Rabbit
Classification: non-irritant
Method: OECD Test Guideline 405

Respiratory or skin sensitisation:
Species: Guinea pig

Classification: non-sensitizing
Method: OECD Test Guideline 406

Aspiration hazard:
No data available

11.2. Information on other hazards

Endocrine disrupting properties
No data available

Other information:
Not mutagenic in Ames Test
Solvent vapours have a narcotic effect if inhaled in high concentrations.
Solvents may degrease the skin.
Prolonged skin contact may cause skin irritation.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:
LC50
Species: Salmo gairdneri
Value: 230 mg/l
Exposure time: 96 h

Toxicity to aquatic plants:
NOEC
Species: Desmodesmus subspicatus (green algae)
Value: > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

EC50
Species: scenedesmus subspicatus
Value: 3.300 mg/l
Exposure time: 48 h

Toxicity to Microorganisms:
EC10
Species: Pseudomonas putida

Value: 650 mg/l
Exposure time: 16 h
Method: DIN 38412

Toxicity to aquatic invertebrates:
EC50
Species: Daphnia magna (Water flea)
Value: 3.090 mg/l
Exposure time: 24 h
Method: DIN 38412
NOEC
Species: Daphnia magna (Water flea)
Value: 2,4 mg/l
Exposure time: 21 d

12.2. Persistence and degradability

Biodegradability:
Biodegradation: 100 %
Exposure time: 28 d
Result: Readily biodegradable.
Method: OECD 301 D

12.3. Bioaccumulative potential

Bioaccumulation is unlikely.

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

Biochemical Oxygen Demand (BOD)	:	Value: 293 mg/g
Chemical Oxygen Demand (COD)	:	Value: 1.816 mg/g

Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:
Dispose according to legal requirements.

Packaging:
Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:
Provisions relating to waste:
EC Directive 2006/12/EC; 2008/98/EEC
Regulation No. 1013/2006

For personal protection see section 8.

SECTION 14: Transport information

14.1 UN number
ADR/RID:1173 IMDG:1173 IATA:1173

14.2 UN proper shipping name
ADR/RID:ETHYL ACETATE
IMDG:ETHYL ACETATE
IATA:Ethyl acetate

14.3 Transport hazard class(es)
ADR/RID: 3 IMDG: 3 IATA: 3

14.4 Packaging group
ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards
ADR/RID:no Marine pollutant: no

14.6 Special precautions for user
No data available

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

Basis	Value	Remarks
Directive 2012/18/EC SEVESO III Listed in Regulation : P5c: FLAMMABLE LIQUIDS Number in Regulation: 1.2.5.3	**Quantity**: 5.000.000 kg **Quantity**: 50.000.000 kg	
Substances of very high concern (SVHC)		This product does not contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of ≥ 0.1 % (w/w).

Poison Control Center

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+)35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	+30 210 779 3777
Hungary	(+36-80)201-199
Iceland	5432222

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400
Portugal	800250250
Romania	+40 21 318 3606
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	+386 1 400 6051
Spain	+34915620420
Sweden	112 (begär Giftinformation);+46104566786

Ireland	+353(1)8092166
Italy	0382 24444
Germany	Berlin : 030/19240
	Bonn : 0228/19240
	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240
	Homburg : 06841/19240
	Mainz : 06131/19240
	Munich : 089/19240
Latvia	+37167042473

Switzerland	145
United Kingdom	(+44) 844 892 0111

Other inventory information

US. Toxic Substances Control Act
On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List
On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)
On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI)
On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Text of H-statements referred to under heading 3

ethyl acetate	:	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.

Further information

All directives and regulations refer to amended versions.
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:
EC European Community
CAS Chemical Abstracts Service
DNEL Derived no effect level
PNEC Predicted no effect level
vPvB Very persistent and very biaccumulative substance
PBT Persistent, bioaccmulative und toxic substance

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.
This information should not constitute a guarantee for any specific product properties.

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