

Material Safety Data Sheet

According to 91/155 EEC(2001/58 EC)

Printing date: 06.12.2006

Reviewed on: 06.12.2006

1 Identification of substance:

Product details:

- Trade name: **Ethyl acetate**
- Application of the substance / the preparation Solvents

Supplier/Manufacturer:

Penpet Petrochemical Trading GmbH
Merkur-Park
Sieker Landstrasse 126
22143 Hamburg
Germany
Tel: +49 40 675 799 0
Fax: +49 40 675 799 99 / 88

Information department: see above**Emergency information:** National Poisons Information Centre Tel.: +44 (0)870 6006266

2 Composition/Data on components:

- Chemical characterization:
- CAS No. Description:
2141-78-6 ethyl acetate
- Identification number(s):
- EINECS Number: 205-500-4
- EU Number: 607-022-00-5

3 Hazards identification

Hazard description:

Xi Irritant
F Highly flammable

Information pertaining to particular dangers for man and environment:

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Has a narcotizing effect.

R 11 Highly flammable.

R 36 Irritating to eyes.

R 66 Repeated exposure may cause skin dryness or cracking.

R 67 Vapours may cause drowsiness and dizziness.

Classification system:

The classification was made according to the latest editions of the EU-lists, and expanded using company data and specialized literature.

4 First aid measures

General information:

Immediately remove any clothing soiled by the product.

Take affected persons out into the fresh air.

After inhalation:

Remove victim from contaminated area. If breathing is difficult, give oxygen. If breathing stops, provide artificial respiration. Call a doctor.

After skin contact:

Wash with water and soap.

Do not use solvents or thinners.

Seek medical treatment.

(Contd. on page 2)

— GB —

Material Safety Data Sheet

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Trade name: Ethyl acetate

(Contd. of page 1)

- **After eye contact:**
Rinse the eyes with open eyelids for 10 - 15 minutes with water. Then consult a doctor or better an eye specialist.
- **After swallowing:**
Rinse mouth with water.
Do not administer milk or alcohol.
Administer medicinal carbon
Do not induce vomiting.
If vomiting occurs spontaneously:
Hold the head of the casualty low with the body in a prone position in order to avoid aspiration.
Seek medical treatment.
- **Information for doctor:**
- **The following symptoms may occur:**
Redness of the skin
Eczema
After inhalation:
Headache
Anorexia
Gastric or intestinal disorders.
After inhalation vapour at high concentration levels:
Daze
Narcotic effect
respiratory paralysis
- **Danger:** If swallowed or in case of vomiting, danger of entering the lungs.
- **Treatment:**
Symptomatic treatment
In cases of irritation to the lungs, initial treatment with Dexametason metered aerosol.

5 Fire fighting measures

- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** Direct jet water
- **Special hazards caused by the material, its products of combustion or resulting gases:**
Dangerous decomposition product see chapter 10: stability and reactivity
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information:**
Heating leads to pressure increase entailing danger of bursting and explosion. Immediately cool neighbouring packages and containers with sprayed water and, if possible, remove them out of the danger zone
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Person-related safety precautions:**



Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Use respiratory protective device against the effects of fumes/dust/aerosol.

Do not smoke - keep ignition sources away

- **Measures for environmental protection:**

Do not allow product to reach sewage system or any water course.

Do not allow to penetrate the ground/soil.

(Contd. on page 3)

GB

Material Safety Data Sheet

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Trade name: Ethyl acetate

(Contd. of page 2)

- **Measures for cleaning/collecting:**
 - Ensure adequate ventilation.
 - Absorb with non-combustible material like sand, soil or diatomite.
 - Send for recovery or disposal in suitable receptacles.
 - Dispose contaminated material as waste according to item 13.
- **Additional information:** Keep ignition sources away. Do not smoke.

7 Handling and storage

- **Handling**
- **Information for safe handling:**
 - Keep away from heat and direct sunlight.
 - Ensure good ventilation/exhaustion at the workplace.
 - Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
 - Restrict the quantity stored at the work place.
 - Avoid contact with eyes and skin.
 - Avoid inhalation of vapours.
 - Use solvent-proof equipment.
- **Information about protection against explosions and fires:**



Keep ignition sources away - Do not smoke.

- Protect against electrostatic charges
- Fumes can combine with air to form an explosive mixture.
- Use explosion-proof apparatus / fittings and spark-proof tools.
- No welding.
- Work on containers and pipelines is permitted only after thorough purging and inerting.
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
 - Store container tightly sealed at a cool and dry place with sufficient ventilation.
 - Provide solvent resistant, sealed floor.
 - Observe national regulations for storage of flammable liquids.
- **Information about storage in one common storage facility:**
 - Store away from foodstuffs.
 - Store away from feed.
 - Store away from oxidizing agents.
 - Follow regulations for flammable liquids.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **Storage class** 3A Flammable Liquids

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:**
 - 141-78-6 ethyl acetate**
 - WEL (Great Britain) Short-term value: 400 ppm
 - Long-term value: 200 ppm
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Do not eat, drink, smoke or sniff while working.
 - Immediately remove all soiled and contaminated clothing
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes and skin.
 - Provide eye bath.

(Contd. on page 4)
— GB —

Material Safety Data Sheet

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Printing date: 06.12.2006

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Trade name: Ethyl acetate

(Contd. of page 3)

Apply solvent resistant skin cream before beginning work.

• **Breathing equipment:**

If vapors are formed use suitable respiratory protective device

Use respirator filter unit with gas filter DIN EN 141 Type A (colour coding brown):

Up to 0.1 Vol.% class 1;

up to 0.5 Vol.% class 2; up to 1 Vol.% class 3;

above 1% and if conditions are unclear, use respirator equipment which is independent of the ambient air.

• **Protection of hands:**

Solvent resistant gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Check the permeability prior to each renewed use of the glove.

After use of gloves apply skin-cleaning agents and skin cosmetics.

• **Material of gloves:**

Butyl rubber, BR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

• **Penetration time of glove material:**

Butyl 0,5 mm: > = 60 min. (In case of permanent contact do not use gloves more than 1 hour)

The exact break-through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• **Not suitable are gloves made of the following materials:**

Polychloropren rubber (CR)

Natural rubber, NR

Nitrile rubber, NBR

Fluorocarbon rubber (FKM)

PVC gloves

• **Eye protection:** Tightly sealed goggles.

• **Body protection:**

Flame retarding, antistatic protective clothing.

Solvent resistant protective clothing

9 Physical and chemical properties:

• **General Information**

Form:	Fluid
Colour:	Colourless
	Clear
Odour:	Fruit-like

• **Change in condition:**

Melting point/Melting range: -83.57°C

Boiling point/Boiling range: 76 - 78°C

• **Flash point:** -1°C

• **Ignition temperature:** 460°C

• **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

• **Explosion limits:**

Lower: 2.1 Vol %

Upper: 11.5 Vol %

• **Vapour pressure at 20°C:** 97 hPa

• **Density at 20°C:** 0.9 g/cm³

• **Solubility in / Miscibility with**

Water at 20°C: 79 g/l

(Contd. on page 5)

Material Safety Data Sheet

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(Contd. of page 4)

- **Viscosity:**
dynamic at 20°C: 0.44 mPas

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.
- **Materials to be avoided:** Strong oxidants
- **Dangerous reactions:** Reacts violently with oxidizing agents
- **Dangerous products of decomposition:**
If exposed to light and air and upon contact with water acetic acid and ethyl alcohol is formed.

11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**
141-78-6 ethyl acetate
Oral LD₅₀ 4935 mg/kg (rabbit)
Inhalative LC₅₀/4 h 1600 mg/l (rat)
- **Primary irritant effect:**
- **on the skin:**
Irritation of the mucous membrane
Defatting effect on the skin.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
Inhalation of concentrated vapours as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.
After swallowing: irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

12 Ecological information

- **Ecotoxicological effects:**
- **Aquatic toxicity:** Presently there are no ecotoxicological values available.
- **General notes:**
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Danger to drinking water is possible if large quantities leak into the ground or into water course.

13 Disposal considerations

- **Product:**
- **Recommendation:**



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Disposal according to instructions of local authorities.

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

(Contd. on page 6)

— GB —

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(Contd. of page 5)

14 Transport information

· Land transport ADR/RID (cross-border)



- ADR/RID class: 3 (F1) Flammable liquids.
- Danger code (Kemler): 33
- UN-Number: 1173
- Packaging group: II
- Label: 3
- Description of goods: 1173 ETHYL ACETATE
- Remarks: Limited quantity: 3 l inner packaging, 30 kg gross packaging unit

· Maritime transport IMDG:



- IMDG Class: 3
- UN Number: 1173
- Label: 3
- Packaging group: II
- EMS Number: F-E, S-D
- Proper shipping name: ETHYL ACETATE

· Air transport ICAO-TI and IATA-DGR:



- ICAO/IATA Class: 3
- UN/ID Number: 1173
- Label: 3
- Packaging group: II
- Proper shipping name: ETHYL ACETATE
- Remarks: Packing Instructions:
For Limited Quantities: Y305 (Max Net Qty/Pkg: 1 l)
Passenger and Cargo Aircraft: 305 (Max Net Qty/Pkg: 5 l)
Cargo Aircraft only: 307 (Max Net Qty/Pkg: 60 l)

15 Regulations

· Markings according to EC guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials
EC-labelling

· Code letter and hazard designation of product:



Xi Irritant
F Highly flammable

· Risk phrases:

- 11 Highly flammable.
- 36 Irritating to eyes.
- 66 Repeated exposure may cause skin dryness or cracking.

(Contd. on page 7)

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(Contd. of page 6)

67 Vapours may cause drowsiness and dizziness.

· **Safety phrases:**

- 16 Keep away from sources of ignition - No smoking.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 33 Take precautionary measures against static discharges.

· **National regulations**

· **Information about limitation of use:** Restrictions on juvenile employment must be observed.

· **Technical guidance (air):**

· **Class Share in %**

· NK 100.0

· **Water hazard class:** Water hazard class 1 (Assessment by list): slightly hazardous for water.

16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:**

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