

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ethanol 100 Vol.-% mit Petrolether vergällt

Revision date: 22.02.2024

Product code: 26697

Page 1 of 12

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Ethanol 100 Vol.-% mit Petrolether vergällt

Substance name: ethanol
REACH Registration Number: 01-2119457610-43-XXXX
CAS No: 64-17-5
Index No: 603-002-00-5
EC No: 200-578-6

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

Laboratory chemical
Industrial uses: Uses of substances as such or in preparations at industrial sites
Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name: AnalytiChem GmbH
ACD
Street: Stempelstraße 6
Place: D-47167 Duisburg
Telephone: 0203/5194-0
Telefax: 0203/5194-290
E-mail: info@analytichem.de
Contact person: Abteilung Produktsicherheit
Telephone: 0203/5194-107/117
E-mail: produktsicherheit@analytichem.de
Internet: www.analytichem.de
Responsible Department: Abteilung Produktsicherheit

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

No data available

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Flam. Liq. 2; H225
Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

2.2. Label elements**Regulation (EC) No 1272/2008**

Signal word: Danger

Pictograms:



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ethanol 100 Vol.-% mit Petrolether vergällt

Revision date: 22.02.2024

Product code: 26697

Page 2 of 12

Hazard statements

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P280 Wear protective gloves and eye/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P403+P235 Store in a well-ventilated place. Keep cool.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

ALCOHOL

Sum formula: C₂H₆O₂

Molecular weight: 62,07 g/mol

Relevant ingredients

| CAS No | Chemical name | Quantity |
|------------|---|--------------|
| | EC No | Index No |
| | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | |
| 64-17-5 | ethanol | 95 - < 100 % |
| | 200-578-6 | 603-002-00-5 |
| | 01-2119457610-43-XXXX | |
| | Flam. Liq. 2, Eye Irrit. 2; H225 H319 | |
| 64742-49-0 | Naphtha (petroleum), hydrotreated light | 1 - < 5 % |
| | 265-151-9 | 649-328-00-1 |
| | 01-2119474679-18-XXXX | |
| | Flam. Liq. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H336 H304 H411 EUH066 | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|---------|-----------|---|--------------|
| | | Specific Conc. Limits, M-factors and ATE | |
| 64-17-5 | 200-578-6 | ethanol | 95 - < 100 % |
| | | inhalation: LC50 = 124,7 mg/l (vapours); oral: LD50 = 10470 mg/kg Eye Irrit. 2; H319: >= 50 - 100 | |

Further Information

No data available

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No data available

After inhalation

Provide fresh air.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ethanol 100 Vol.-% mit Petrolether vergällt

Revision date: 22.02.2024

Product code: 26697

Page 3 of 12

After contact with skin

Wash immediately with: Water
Take off immediately all contaminated clothing and wash it before reuse.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Never give anything by mouth to an unconscious person or a person with cramps.
Rinse mouth immediately and drink plenty of water.
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

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

Irritant
Dizziness
The product causes narcotic-like effects.
Inebriation
Vomiting

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide (CO₂), Foam, Extinguishing powder.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Combustible liquid.
Vapours are heavier than air, spread along floors and form explosive mixtures with air.
Hazardous combustion products In case of fire may be liberated: Carbon dioxide (CO₂) Carbon monoxide
Beware of reignition.

5.3. Advice for firefighters

Remove persons to safety. Do not inhale explosion and combustion gases.
Avoid contact with skin, eyes and clothes.
In case of fire: Wear self-contained breathing apparatus.
Use water spray jet to protect personnel and to cool endangered containers.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Suppress gases/vapours/mists with water spray jet.
Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Keep away from sources of ignition - No smoking.
This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).
Take action to prevent static discharges.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ethanol 100 Vol.-% mit Petrolether vergällt

Revision date: 22.02.2024

Product code: 26697

Page 4 of 12

For non-emergency personnel

- Provide adequate ventilation.
- Use personal protection equipment.
- Avoid contact with skin, eyes and clothes.
- Remove persons to safety.
- Emergency procedures
- Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

- Do not allow to enter into surface water or drains.
- The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.
- Danger of explosion

6.3. Methods and material for containment and cleaning up

For containment

- Cover drains.
- Prevent spread over a wide area (e.g. by containment or oil barriers).
- Collect in closed and suitable containers for disposal.
- Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

- Provide adequate ventilation.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

- Read label before use. Handle and open container with care.
- When using do not eat, drink, smoke, sniff. Keep container tightly closed.
- Use personal protection equipment. Use extractor hood (laboratory).
- Do not breathe vapour. Provide adequate ventilation.

Advice on protection against fire and explosion

Take action to prevent static discharges. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on general occupational hygiene

- Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
- Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

- Take off immediately all contaminated clothing and wash it before reuse.
- Draw up and observe skin protection programme.
- Wash hands and face before breaks and after work and take a shower if necessary.

7.2. Conditions for safe storage, including any incompatibilities

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ethanol 100 Vol.-% mit Petrolether vergällt

Revision date: 22.02.2024

Product code: 26697

Page 5 of 12

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

Further information on storage conditions

Vapours may form explosive mixtures with air.

7.3. Specific end use(s)

Laboratory use Laboratory chemical

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

| CAS No | Substance | ppm | mg/m ³ | fib/cm ³ | Category | Origin |
|---------|---------------|------|-------------------|---------------------|---------------|--------|
| 64-17-5 | Ethyl alcohol | 1000 | - | | STEL (15 min) | |

DNEL/DMEL values

| CAS No | Substance | DNEL type | Exposure route | Effect | Value |
|---------|-----------|--------------------------|----------------|----------|-----------------------|
| 64-17-5 | ethanol | | | | |
| | | Worker DNEL, long-term | inhalation | systemic | 950 mg/m ³ |
| | | Worker DNEL, long-term | dermal | systemic | 343 mg/kg bw/day |
| | | Consumer DNEL, long-term | inhalation | systemic | 114 mg/m ³ |
| | | Consumer DNEL, long-term | dermal | systemic | 206 mg/kg bw/day |
| | | Consumer DNEL, long-term | oral | systemic | 87 mg/kg bw/day |

PNEC values

| CAS No | Substance | Environmental compartment | Value |
|---------|-----------|--|------------|
| 64-17-5 | ethanol | | |
| | | Freshwater | 0,96 mg/l |
| | | Freshwater (intermittent releases) | 2,75 mg/l |
| | | Marine water | 0,79 mg/l |
| | | Freshwater sediment | 3,6 mg/kg |
| | | Marine sediment | 2,9 mg/kg |
| | | Secondary poisoning | 380 mg/kg |
| | | Micro-organisms in sewage treatment plants (STP) | 580 mg/l |
| | | Soil | 0,63 mg/kg |

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ethanol 100 Vol.-% mit Petrolether vergällt

Revision date: 22.02.2024

Product code: 26697

Page 6 of 12

Eye/face protection

Suitable eye protection: goggles.

Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation KCL 897 Butoject®

Suitable material: Butyl caoutchouc (butyl rubber) 0,3 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation KCL 720 Camapren®

Suitable material: CR (polychloroprene, chloroprene rubber) 0,65 mm

Wearing time with occasional contact (splashes): > 60 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet (>, <) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

Environmental exposure controls

The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

Danger of explosion

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|-------------------|
| Physical state: | Liquid |
| Colour: | colourless |
| Odour: | like: Alcohol |
| Odour threshold: | No data available |
| Melting point/freezing point: | -114,5 °C |
| Boiling point or initial boiling point and boiling range: | 78 °C |
| Flammability: | not applicable |
| Lower explosion limits: | 3,1 vol. % |
| Upper explosion limits: | 27,7 vol. % |
| Flash point: | 12 °C |
| Auto-ignition temperature: | 425 °C |
| Decomposition temperature: | not determined |
| pH-Value (at 20 °C): | 7 (10g/l) |
| Viscosity / kinematic: | No data available |
| Water solubility: | Soluble in: Water |
| Solubility in other solvents | not determined |
| Partition coefficient n-octanol/water: | -0,31 |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ethanol 100 Vol.-% mit Petrolether vergällt

Revision date: 22.02.2024

Product code: 26697

Page 7 of 12

| | |
|--------------------------------|---------------------------|
| Vapour pressure: (at 50 °C) | 59 hPa |
| Vapour pressure: | No data available |
| Density: | 0,79000 g/cm ³ |
| Bulk density: | No data available |
| Relative vapour density: | not determined |

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

Vapours can form explosive mixtures with air.

Sustaining combustion:

Sustaining combustion

Self-ignition temperature

Solid:

not applicable

Gas:

not applicable

Oxidizing properties

Not oxidising.

Other safety characteristics

Evaporation rate:

not determined

Solvent separation test:

No data available

Solvent content:

No data available

Solid content:

No data available

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

No data available:

Viscosity / dynamic:

1,2 mPa·s

(at 20 °C)

Flow time:

No data available

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable.

Vapours can form explosive mixtures with air.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Oxidising agent

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

10.5. Incompatible materials

Plastic articles

Rubber articles

10.6. Hazardous decomposition products

Hazardous combustion products

In case of fire may be liberated: Carbon dioxide (CO₂), Carbon monoxide

Further information

No data available

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ethanol 100 Vol.-% mit Petrolether vergällt

Revision date: 22.02.2024

Product code: 26697

Page 8 of 12

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

No data available

Acute toxicity

Based on available data, the classification criteria are not met.

| CAS No | Chemical name | | | | |
|---------|-------------------------|---------------|---------|--------|---|
| | Exposure route | Dose | Species | Source | Method |
| 64-17-5 | ethanol | | | | |
| | oral | LD50 mg/kg | 10470 | Rat | Study report (1976) OECD Guideline 401 |
| | inhalation (4 h) vapour | LC50 mg/l | 124,7 | Rat | Study report (1980) OECD Guideline 403 |

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

No data available

Additional information on tests

No data available

Practical experience

No data available

11.2. Information on other hazards

Other information

Irritant

Dizziness

The product causes narcotic-like effects.

Inebriation

Vomiting

Further information

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

SECTION 12: Ecological information

12.1. Toxicity

Based on available data, the classification criteria are not met.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ethanol 100 Vol.-% mit Petrolether vergällt

Revision date: 22.02.2024

Product code: 26697

Page 9 of 12

| CAS No | Chemical name | | | | | |
|---------|--------------------------|----------------------|-----------|---------------------------------|---|--|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 64-17-5 | ethanol | | | | | |
| | Acute fish toxicity | LC50 15400 mg/l | 96 h | Lepomis macrochirus | Bulletin of Environmental Contamination | other: EPA-660/3-75-00 9, 1975 |
| | Acute algae toxicity | ErC50 ca. 22000 mg/l | 96 h | Pseudokirchneriella subcapitata | Ecotoxicology and Environmental Safety 7 | OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 > 10000 mg/l | 48 h | Daphnia magna | Water Research 23(4): 495-499 (1989) | other: DIN 38412 Teil 11 |
| | Algae toxicity | NOEC 5400 mg/l | 5 d | Skeletonema costatum | Environ Toxicol Chem 8(5):451-455. (1989) | Study to determine the sensitivity of a |
| | Crustacea toxicity | NOEC 2 mg/l | 10 d | Ceriodaphnia dubia | Arch Environ Contam Toxicol 20(2):211-21 | Follows the basic methodology for the th |

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|---------|---------------|---------|
| 64-17-5 | ethanol | -0,77 |

BCF

| CAS No | Chemical name | BCF | Species | Source |
|---------|---------------|-----|-----------------|----------------------|
| 64-17-5 | ethanol | 1 | Cyprinus carpio | Comparative Biochemi |

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

Do not empty into drains.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Do not allow to enter into surface water or drains.

Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Handle contaminated packages in the same way as the substance itself.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ethanol 100 Vol.-% mit Petrolether vergällt

Revision date: 22.02.2024

Product code: 26697

Page 10 of 12

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number: UN 1170
14.2. UN proper shipping name: ETHANOL (ETHYL ALCOHOL)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3
 Classification code: F1
 Special Provisions: 144 601
 Limited quantity: 1 L
 Excepted quantity: E2
 Transport category: 2
 Hazard No: 33
 Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1170
14.2. UN proper shipping name: ETHANOL (ETHYL ALCOHOL)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3
 Classification code: F1
 Special Provisions: 144 601
 Limited quantity: 1 L
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number or ID number: UN 1170
14.2. UN proper shipping name: ETHANOL (ETHYL ALCOHOL)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3
 Special Provisions: 144
 Limited quantity: 1 L
 Excepted quantity: E2
 EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1170
14.2. UN proper shipping name: ETHANOL (ETHYL ALCOHOL)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3
 Special Provisions: A3 A58 A180
 Limited quantity Passenger: 1 L
 Passenger LQ: Y341
 Excepted quantity: E2
 IATA-packing instructions - Passenger: 353
 IATA-max. quantity - Passenger: 5 L
 IATA-packing instructions - Cargo: 364
 IATA-max. quantity - Cargo: 60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ethanol 100 Vol.-% mit Petrolether vergällt

Revision date: 22.02.2024

Product code: 26697

Page 11 of 12

Warning: Combustible liquid.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Information according to Directive

P5c FLAMMABLE LIQUIDS

2012/18/EU (SEVESO III):

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

1 - slightly hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 9,12.

Abbreviations and acronyms

Flam. Liq: Flammable liquid

Asp. Tox: Aspiration hazard

Eye Irrit: Eye irritation

STOT SE: Specific target organ toxicity - single exposure

Aquatic Chronic: Chronic aquatic hazard

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ethanol 100 Vol.-% mit Petrolether vergällt

Revision date: 22.02.2024

Product code: 26697

Page 12 of 12

product properties and establishes no contract legal rights.
The receiver of our product is singularly responsible for adhering to existing laws and regulations.