

according to Regulation (EC) No 1907/2006

Acetic acid 1 mol/l - 1 N solution

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

1.1. Product identifier

Acetic acid 1 mol/l - 1 N solution

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

Use of the substance/mixture

Laboratory chemicals

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 D-47167 Duisburg Place:

0203/5194-0 Telephone: Telefax: 0203/5194-290

E-mail: info@analytichem.de

Contact person: Abteilung Produktsicherheit Telephone: 0203/5194-107/117

produktsicherheit@analytichem.de F-mail:

Internet: www.analytichem.de Responsible Department: Abteilung Produktsicherheit

1.4. Emergency telephone For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire,

Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: number:

1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls

accepted)

Further Information

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements

Regulation (EC) No 1272/2008

Special labelling of certain mixtures

EUH210 Safety data sheet available on request.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures in aqueous solution



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Relevant ingredients

| CAS No | Chemical name | Chemical name | | | | | |
|---------|--|---|----------|--|--|--|--|
| | EC No | Index No | REACH No | | | | |
| | Classification (Regulat | Classification (Regulation (EC) No 1272/2008) | | | | | |
| 64-19-7 | acetic acid | acetic acid | | | | | |
| | 200-580-7 | 200-580-7 607-002-00-6 01-2119475328-30 | | | | | |
| | Flam. Liq. 3, Skin Corr. 1A; H226 H314 | | | | | | |

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. L | imits, M-factors and ATE | |
| 64-19-7 | 200-580-7 | acetic acid | 5 - < 10 % |
| | | 0 = 11,4 mg/l (vapours); oral: LD50 = 3310 mg/kg | |

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No data available

After inhalation

Provide fresh air.

After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated:

Acetic acid vapour



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5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

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.

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

Do not breathe gas/fumes/vapour/spray.

Provide adequate ventilation.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

Further information on handling

Take off immediately all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities



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Requirements for storage rooms and vessels

Keep container tightly closed.

Hints on joint storage

No data available

Further information on storage conditions

storage temperature +15°C - +25°C

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

| CAS No | Substance | ppm | mg/m³ | fib/cm³ | Category | Origin |
|---------|-------------|-----|-------|---------|---------------|--------|
| 64-19-7 | Acetic acid | 10 | 25 | | TWA (8 h) | |
| | | 20 | 50 | | STEL (15 min) | |

DNEL/DMEL values

| CAS No | Substance | Substance | | | | | | |
|-----------------------------------|---------------|-------------|-------|----------|--|--|--|--|
| DNEL type Exposure route Effect V | | | | | | | | |
| 64-19-7 | acetic acid | acetic acid | | | | | | |
| Worker DNE | EL, long-term | inhalation | local | 25 mg/m³ | | | | |
| Worker DNEL, acute | | inhalation | local | 25 mg/m³ | | | | |
| Consumer DNEL, long-term | | inhalation | local | 25 mg/m³ | | | | |
| Consumer D | NEL, acute | inhalation | local | 25 mg/m³ | | | | |

PNEC values

| CAS No | Substance | |
|--|-------------|------------|
| Environmental compartment Value | | |
| 64-19-7 | acetic acid | |
| Freshwater | | 3,058 mg/l |
| Freshwater (intermittent releases) | | 30,58 mg/l |
| Marine water | | 0,306 mg/l |
| Freshwater se | 11,36 mg/kg | |
| Marine sedime | 1,136 mg/kg | |
| Micro-organisms in sewage treatment plants (STP) | | 85 mg/l |
| Soil | | 0,47 mg/kg |

8.2. Exposure controls

Appropriate engineering controls

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

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four



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control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

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 741 Dermatril® L Recommended material: NBR (Nitrile rubber) 0.11 mm Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCI 741 Dermatril® I NBR (Nitrile rubber) 0,11 mm Recommended material: Wearing time with occasional contact (splashes): > 480 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

Take off immediately all contaminated clothing and wash it before reuse.

Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid Colour: colourless Odour: characteristic Odour threshold: No data available

Melting point/freezing point: No data available No data available Boiling point or initial boiling point and

boiling range:

No data available Flammability: Lower explosion limits: No data available Upper explosion limits: No data available No data available Flash point: Auto-ignition temperature: No data available Decomposition temperature: No data available pH-Value: acidic Viscosity / kinematic: No data available

Water solubility: completely miscible

Solubility in other solvents No data available

Dissolution rate: No data available



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Partition coefficient n-octanol/water: No data available Dispersion stability: No data available Vapour pressure: No data available Vapour pressure: No data available Density: 1,003 g/cm3 Relative density: No data available Bulk density: No data available No data available Relative vapour density: No data available Particle characteristics:

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

No data available

Sustaining combustion: No data available

Self-ignition temperature

Solid: No data available
Gas: No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate: No data available 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 No data available Pour point: No data available Viscosity / dynamic: No data available No data available Flow time:

Further Information

May be corrosive to metals.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

SECTION 5: Firefighting measures

Further information

No data available



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SECTION 11: Toxicological information

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

Toxicocinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

| CAS No | Chemical name | Chemical name | | | | | | |
|---------|-------------------------|---------------|-----------|---------|---|--|--|--|
| | Exposure route | Dose | | Species | Source | Method | | |
| 64-19-7 | acetic acid | acetic acid | | | | | | |
| | oral | LD50 mg/kg | 3310 | Rat | J Ind Hyg Toxicol, Vol 23, PP 78-82 (194 | The sodium salt of acetic acid was admin | | |
| | inhalation (4 h) vapour | LC50 | 11,4 mg/l | Rat | Study report (1980) | OECD Guideline 403 | | |

Irritation and corrosivity

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

Serious eye damage/eye 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

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

Reproductive toxicity: 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.

Observe risk of aspiration if vomiting occurs.

Information on likely routes of exposure

There are no data available on the preparation/mixture itself.

Specific effects in experiment on an animal

There are no data available on the preparation/mixture itself.

Additional information on tests

There are no data available on the preparation/mixture itself.

Practical experience

There are no data available on the preparation/mixture itself.

11.2. Information on other hazards

Endocrine disrupting properties

There are no data available on the preparation/mixture itself.

Other information

There are no data available on the preparation/mixture itself.

Further information

There are no data available on the preparation/mixture itself.



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SECTION 12: Ecological information

12.1. Toxicity

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

| CAS No | Chemical name | Chemical name | | | | | | |
|---------|--------------------------|---------------|--------|-----------|-------------------------|------------------------|-----------------------|--|
| | Aquatic toxicity | Dose | | [h] [d] | Species | Source | Method | |
| 64-19-7 | acetic acid | acetic acid | | | | | | |
| | Acute fish toxicity | LC50 mg/l | > 1000 | 96 h | Oncorhynchus mykiss | Study report (2005) | other: SOP E257 | |
| | Acute algae toxicity | ErC50 mg/l | > 1000 | l . – | Skeletonema costatum | Study report (2005) | ISO 10253 | |
| | Acute crustacea toxicity | EC50 mg/l | > 1000 | 48 h | Daphnia magna | Study report (1990) | OECD Guideline 202 | |

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|---------|---------------|---------|
| 64-19-7 | acetic acid | -0,17 |

BCF

| CAS No | Chemical name | BCF | Species | Source |
|---------|---------------|------|---------|----------------------|
| 64-19-7 | acetic acid | 3,16 | fish | Environ. Toxicol. Ch |

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

There are no data available on the mixture itself.

Further information

There are no data available on the mixture itself.

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 empty into 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.

SECTION 14: Transport information

Land transport (ADR/RID)



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| | | | | |

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14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

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 40

Information according to Directive

2012/18/EU (SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,4,9,11,12,13.

Abbreviations and acronyms

Flam. Liq: Flammable liquid Skin Corr: Skin corrosion

Relevant H and EUH statements (number and full text)

H226 Flammable liquid and vapour.

H314 Causes severe skin burns and eye damage. EUH210 Safety data sheet available on request.

Further Information

Provide appropriate information, instructions and training to users

The above information describes exclusively the safety requirements of the product and is based on our





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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 product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)