

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

1.1. Product identifier

Product form : Mixture
Product name : Acetic Acid, 10% v/v (1+9)
Product code : LC10190

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

Use of the substance/mixture : For laboratory and manufacturing use only.

1.3. Details of the supplier of the safety data sheet

LabChem Inc
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Corr. 1C H314
Eye Dam. 1 H318

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS05

Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage
Precautionary statements (GHS-US) : P260 - Do not breathe mist, vapours, spray
P264 - Wash exposed skin thoroughly after handling
P280 - Wear protective gloves, eye protection
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position 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. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor/physician
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/container to comply with local, state and federal regulations

2.3. Other hazards

Other hazards not contributing to the classification : None.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Acetic Acid, 10% v/v (1+9)

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Full text of H-phrases: see section 16

3.2. Mixture

| Name | Product identifier | % | GHS-US classification |
|-------------|--------------------|-------|---|
| Water | (CAS No) 7732-18-5 | 89.66 | Not classified |
| Acetic Acid | (CAS No) 64-19-7 | 10.34 | Flam. Liq. 3, H226 Skin Corr. 1B, H314 Eye Dam. 1, H318 |

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|---|
| First-aid measures general | : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). |
| First-aid measures after inhalation | : Assure fresh air breathing. Allow the victim to rest. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. |
| First-aid measures after skin contact | : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician. |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. |
| First-aid measures after ingestion | : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. |

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

| | |
|-------------------------------------|--|
| Symptoms/injuries | : Causes severe skin burns and eye damage. |
| Symptoms/injuries after eye contact | : Causes serious eye damage. |

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

Obtain medical assistance.

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Foam. Dry powder. Carbon dioxide. Water spray. Sand. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Special hazards arising from the substance or mixture

| | |
|------------|--|
| Reactivity | : Thermal decomposition generates : Corrosive vapours. |
|------------|--|

5.3. Advice for firefighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

| | |
|----------------------|--|
| Protective equipment | : Safety glasses. Gloves. Protective clothing. |
| Emergency procedures | : Evacuate unnecessary personnel. |

6.1.2. For emergency responders

| | |
|----------------------|--|
| Protective equipment | : Equip cleanup crew with proper protection. |
| Emergency procedures | : Ventilate area. |

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|--|
| Methods for cleaning up | : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. |
|-------------------------|--|

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not breathe mist, vapours, spray.
- Hygiene measures : Wash exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations.
- Storage conditions : Keep container closed when not in use.
- Incompatible products : Strong oxidizers. metals. Strong bases.
- Incompatible products : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Acetic Acid (64-19-7) | | |
|-----------------------|-------------------------------------|----------------------|
| USA ACGIH | ACGIH TWA (ppm) | 10 ppm |
| USA ACGIH | ACGIH STEL (ppm) | 10 ppm |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 25 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (ppm) | 10 ppm |

8.2. Exposure controls

- Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Personal protective equipment : Avoid all unnecessary exposure.
- Hand protection : Wear protective gloves.
- Eye protection : Chemical goggles or face shield.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : Wear appropriate mask.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Colour : Colourless.
- Odour : Vinegar odour.
- Odour threshold : No data available
- pH : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Self ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : No data available
- Vapour pressure : No data available
- Relative vapour density at 20 °C : No data available
- Relative density : No data available
- Density : 1.01 g/ml
- Solubility : Soluble in water.
- Log Pow : No data available

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| | |
|----------------------|---------------------|
| Log Kow | : No data available |
| Viscosity, kinematic | : 1.2 cSt |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong oxidizers. metals. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Thermal decomposition generates : Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| Acetic Acid, 10% v/v (1+9) | |
|----------------------------|-------------|
| LD50 oral rat | 10251 mg/kg |

| Water (7732-18-5) | |
|-------------------|---------------|
| LD50 oral rat | ≥ 90000 mg/kg |

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/injuries after eye contact : Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

| Acetic Acid (64-19-7) | |
|--------------------------------|--|
| LC50 fishes 1 | 75 mg/l (96 h; Lepomis macrochirus) |
| EC50 Daphnia 1 | 47 mg/l (24 h; Daphnia magna; Not neutralized) |
| EC50 other aquatic organisms 1 | > 5000 mg/l (5 h; Activated sludge) |

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| Acetic Acid (64-19-7) | |
|-------------------------|---|
| LC50 fish 2 | 94 mg/l (96 h; Oryzias latipes) |
| EC50 Daphnia 2 | 95 mg/l (24 h; Daphnia magna; Static system) |
| TLM fish 1 | 100 ppm (96 h; Carassius auratus) |
| Threshold limit algae 1 | 90 mg/l (192 h; Microcystis aeruginosa; Neutralized) |
| Threshold limit algae 2 | 4000 mg/l (192 h; Scenedesmus quadricauda; Neutralized) |

12.2. Persistence and degradability

| Acetic Acid, 10% v/v (1+9) | |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

| Acetic Acid (64-19-7) | |
|---------------------------------|--|
| Persistence and degradability | Readily biodegradable in water. Inherently biodegradable. Biodegradable in the soil. |
| Biochemical oxygen demand (BOD) | 0.6 - 0.74 g O ² /g substance |
| Chemical oxygen demand (COD) | 1.03 g O ² /g substance |
| ThOD | 1.07 g O ² /g substance |
| BOD (% of ThOD) | 0.56 - 0.69 % ThOD |

| Water (7732-18-5) | |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

12.3. Bioaccumulative potential

| Acetic Acid, 10% v/v (1+9) | |
|----------------------------|------------------|
| Bioaccumulative potential | Not established. |

| Acetic Acid (64-19-7) | |
|---------------------------|----------------------------------|
| Log Pow | -0.31 (Experimental value) |
| Bioaccumulative potential | Bioaccumulation: not applicable. |

| Water (7732-18-5) | |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |

12.4. Mobility in soil

| Acetic Acid (64-19-7) | |
|-----------------------|-------------------|
| Surface tension | 0.028 N/m (20 °C) |

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN2790 Acetic acid solution (with more than 10 percent and less than 50 percent acid, by mass), 8, III

UN-No.(DOT) : 2790

DOT NA no. : UN2790

DOT Proper Shipping Name : Acetic acid solution
with more than 10 percent and less than 50 percent acid, by mass

Department of Transportation (DOT) Hazard Classes : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8 - Corrosive substances



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| | |
|--|---|
| Packing group (DOT) | : III - Minor Danger |
| DOT Special Provisions (49 CFR 172.102) | : IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. |
| DOT Packaging Exceptions (49 CFR 173.xxx) | : 154 |
| DOT Packaging Non Bulk (49 CFR 173.xxx) | : 203 |
| DOT Packaging Bulk (49 CFR 173.xxx) | : 242 |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : 5 L |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : 60 L |
| DOT Vessel Stowage Location | : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel. |

Additional information

Other information : No supplementary information available.

ADR

Transport document description :

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

| | |
|---|---------------------------------|
| Acetic Acid, 10% v/v (1+9) | |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |
| Acetic Acid (64-19-7) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| RQ (Reportable quantity, section 304 of EPA's List of Lists) : | 5000 lb |
| Water (7732-18-5) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |

15.2. International regulations

CANADA

| | |
|-----------------------------------|---|
| Acetic Acid, 10% v/v (1+9) | |
| WHMIS Classification | Class E - Corrosive Material |
| Acetic Acid (64-19-7) | |
| WHMIS Classification | Class B Division 3 - Combustible Liquid Class E - Corrosive Material |
| Water (7732-18-5) | |
| WHMIS Classification | Uncontrolled product according to WHMIS classification criteria |

EU-Regulations

No additional information available

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

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

| | |
|---------------|---|
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Flam. Liq. 3 | Flammable liquids, Category 3 |
| Skin Corr. 1B | Skin corrosion/irritation, Category 1B |
| Skin Corr. 1C | Skin corrosion/irritation, Category 1C |
| H226 | Flammable liquid and vapour |
| H314 | Causes severe skin burns and eye damage |
| H318 | Causes serious eye damage |

NFPA health hazard

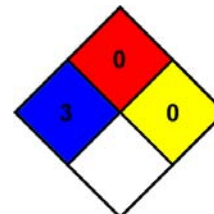
: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard

: 0 - Materials that will not burn.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 0 Minimal Hazard

Physical : 0 Minimal Hazard

Personal Protection : H

SDS US (GHS HazCom 2012)

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