

Formalin system 450 ml / Formalin system 450 ml, red / Formalin set

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

1.1. Product identifier

Formalin system 450 ml / Formalin system 450 ml, red / Formalin set

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

Use of the substance/mixture

For fixation of tissue specimens.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name: SARSTEDT AG & Co. KG
Street: Sarstedtstraße 1
Place: D-51588 Nümbrecht
Post-office box: 1220
D-51582 Nümbrecht
Telephone: +49 (0)2293 / 305 - 0
Telefax: +49 (0)2293 / 305 - 2470
E-mail: info@sarstedt.com
Contact person: Dr. Daniel Will
Telephone: +49 (0)2293 / 305 - 4500
Jochen Hoffmann
E-mail: sicherheitsdatenblatt@sarstedt.com
Internet: www.sarstedt.com
Responsible Department: R & D Center

Supplier

Company name: SARSTEDT Ltd.
Street: Optimus Way, Optimus Point
Place: GB-LE3 8JR Leicester
Telephone: +44 (0) 116 235 9023
Telefax: +44 (0) 116 236 6099
E-mail: info.gb@sarstedt.com
Internet: www.sarstedt.com

1.4. Emergency telephone number:

Call NHS 111 or a doctor (public). NPIS: 0344 892 0111 (healthcare professionals).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Acute Tox. 4; H302
Skin Sens. 1; H317
Muta. 2; H341
Carc. 1B; H350

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

Formaldehyde
Methanol

Signal word: Danger

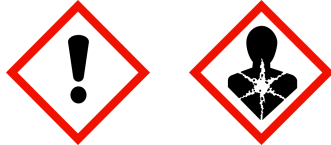
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Pictograms:



Hazard statements

| | |
|------|---------------------------------------|
| H302 | Harmful if swallowed. |
| H317 | May cause an allergic skin reaction. |
| H341 | Suspected of causing genetic defects. |
| H350 | May cause cancer. |

Precautionary statements

| | |
|-----------|--|
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P261 | Avoid breathing mist/vapour/spray. |
| P264 | Wash hands thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P280 | Wear protective gloves/eye protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. |
| P330 | Rinse mouth. |
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P321 | Specific treatment (see remarks on this label). |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container to waste disposal site according to legal regulations. |

Special labelling of certain mixtures

Contains formaldehyde.
Restricted to professional users.

Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

Pictograms:



Hazard statements

H317-H341-H350

Precautionary statements

P201-P202-P261-P272-P280-P302+P352-P321-P362+P364-P308+P313-P405-P501

2.3. Other hazards

There are no data available on the mixture itself.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Relevant ingredients

| CAS No | Chemical name | | | Quantity |
|---------|--|--------------|----------|-----------|
| | EC No | Index No | REACH No | |
| | Classification (GB CLP Regulation) | | | |
| 50-00-0 | Formaldehyde | | | 1 - < 5 % |
| | 200-001-8 | 605-001-00-5 | | |
| | Carc. 1B, Muta. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Skin Sens. 1; H350 H341 H331 H311 H301 H314 H317 | | | |
| 67-56-1 | Methanol | | | 1 - < 5 % |
| | 200-659-6 | 603-001-00-X | | |
| | Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT SE 1; H225 H331 H311 H301 H370 | | | |

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 | |
| 50-00-0 | 200-001-8 | Formaldehyde | 1 - < 5 % |
| | | inhalation: ATE = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: ATE = 300 mg/kg; oral: ATE = 100 mg/kg Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 5 - < 25 Eye Irrit. 2; H319: >= 5 - < 25 Skin Sens. 1; H317: >= 0,2 - 100 STOT SE 3; H335: >= 5 - 100 | |
| 67-56-1 | 200-659-6 | Methanol | 1 - < 5 % |
| | | inhalation: ATE = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: ATE = 300 mg/kg; oral: ATE = 100 mg/kg STOT SE 1; H370: >= 10 - 100 STOT SE 2; H371: >= 3 - < 10 | |

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious. Medical treatment necessary.

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

There are no data available on the mixture itself.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

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5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. 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

General advice

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

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

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

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. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations.

Hints on joint storage

No special measures are necessary.

7.3. Specific end use(s)

For fixation of tissue specimens.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|---------|--------------|-----|-------------------|-----------|---------------|--------|
| 50-00-0 | Formaldehyde | 2 | 2.5 | | TWA (8 h) | WEL |
| | | 2 | 2.5 | | STEL (15 min) | WEL |
| 67-56-1 | Methanol | 200 | 266 | | TWA (8 h) | WEL |
| | | 250 | 333 | | STEL (15 min) | WEL |

8.2. Exposure controls



Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin. Avoid contact with eyes.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye protection/face protection.

Hand protection

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

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Required in case of formation of vapours/aerosols.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | | |
|---|--------------------------|---------------------|
| Physical state: | liquid | |
| Colour: | colourless / red | |
| Odour: | stinging, characteristic | |
| Melting point/freezing point: | | No data available |
| Boiling point or initial boiling point and boiling range: | | No data available |
| Flammability: | | No data available |
| Lower explosion limits: | | No data available |
| Upper explosion limits: | | No data available |
| Flash point: | | No data available |
| Auto-ignition temperature: | | No data available |
| Decomposition temperature: | | No data available |
| pH-Value: | | 7,1 |
| Viscosity / kinematic: | | No data available |
| Water solubility: | | completely miscible |

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Solubility in other solvents

There are no data available on the mixture itself.

Partition coefficient n-octanol/water:

No data available

Vapour pressure:

No data available

Density (at 20 °C):

1,020 - 1,022 g/cm³

Relative vapour density:

No data available

Particle characteristics:

No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

There are no data available on the mixture itself.

Self-ignition temperature

Solid:

No data available

Gas:

No data available

Oxidizing properties

Not oxidising.

Other safety characteristics

Evaporation rate:

No data available

Solid content:

No data available

Further Information

There are no data available on the mixture itself.

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no data available on the mixture itself.

10.2. Chemical stability

There are no data available on the mixture itself.

10.3. Possibility of hazardous reactions

Danger of polymerization.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

Strong oxidizing agents, acids, nitrogen oxides, hydrogenium peroxide, performic acid, strong bases.

10.6. Hazardous decomposition products

There are no data available on the mixture itself.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

Harmful if swallowed.

ATEmix calculated

ATE (oral) 1875 mg/kg; ATE (dermal) 5625 mg/kg; ATE (inhalation vapour) 56,25 mg/l; ATE (inhalation dust/mist) 9,376 mg/l

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| CAS No | Chemical name | | | | |
|---------|----------------------|---------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 50-00-0 | Formaldehyde | | | | |
| | oral | ATE 100 mg/kg | | | |
| | dermal | ATE 300 mg/kg | | | |
| | inhalation vapour | ATE 3 mg/l | | | |
| | inhalation dust/mist | ATE 0,5 mg/l | | | |
| 67-56-1 | Methanol | | | | |
| | oral | ATE 100 mg/kg | | | |
| | dermal | ATE 300 mg/kg | | | |
| | inhalation vapour | ATE 3 mg/l | | | |
| | inhalation dust/mist | ATE 0,5 mg/l | | | |

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

May cause an allergic skin reaction. (Formaldehyde)

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing genetic defects. (Formaldehyde)

May cause cancer. (Formaldehyde)

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.

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

11.2. Information on other hazards

Endocrine disrupting properties

No data available

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

| CAS No | Chemical name | | | | | |
|---------|--------------------------|------------------|-----------|--------------------------------|-------------------|--------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 67-56-1 | Methanol | | | | | |
| | Acute fish toxicity | LC50 15400 mg/l | 96 h | Lepomis macrochirus (Bluegill) | (ECOTOX Database) | |
| | Acute crustacea toxicity | EC50 >10000 mg/l | 48 h | Daphnia magna (Big water flea) | (IUCLID) | |

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12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|---------|---------------|---------|
| 67-56-1 | Methanol | -0,77 |

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 UK REACH.

There are no data available on the mixture itself.

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

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

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.

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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

There are no data available on the mixture itself.

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 28, Entry 40, Entry 69, Entry 75

Directive 2010/75/EU on industrial emissions: 1,333 % (13,623 g/l)

Directive 2004/42/EC on VOC in paints and varnishes: 5,333 % (54,503 g/l)

Additional information

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

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

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

Flam. Liq: Flammable liquids

Acute Tox: Acute toxicity

Skin Corr: Skin corrosion

Skin Sens: Skin sensitisation

Muta: Germ cell mutagenicity

Carc: Carcinogenicity

STOT SE: Specific target organ toxicity - single exposure

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%

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Classification for mixtures and used evaluation method according to GB CLP Regulation

| Classification | Classification procedure |
|--------------------|--------------------------|
| Acute Tox. 4; H302 | Calculation method |
| Skin Sens. 1; H317 | Calculation method |
| Muta. 2; H341 | Calculation method |
| Carc. 1B; H350 | Calculation method |

Relevant H and EUH statements (number and full text)

| | |
|------|--|
| H225 | Highly flammable liquid and vapour. |
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H311 | Toxic in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H331 | Toxic if inhaled. |
| H341 | Suspected of causing genetic defects. |
| H350 | May cause cancer. |
| H370 | Causes damage to organs. |

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