

according to UK REACH Regulation

Sodium Acetate Buffer

Revision date: 06.03.2024

Product code: 12142.xxxxx

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

1.1. Product identifier

Sodium Acetate Buffer

UFI:

YFM2-P1GD-X006-MDRE

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

Use of the substance/mixture

Intended for scientific research and development. Use as laboratory reagent.buffer solution.

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

| Company name: | MORPHISTO GmbH | |
|--|-------------------------------------|-----------------------------------|
| Street: | Schumannstr. 144 | |
| Place: | D-63069 Offenbach | |
| Telephone: | +49 (0) 69 / 400 3019-60 | Telefax: +49 (0) 69 / 400 3019-64 |
| E-mail: | info@morphisto.de | |
| Contact person: | Morphisto GmbH | |
| E-mail: | gefahrstoffmanagement@morphisto.c | de |
| Internet: | http://www.morphisto.de | |
| <u>1.4. Emergency telephone</u> number: | Morphisto GmbH, Tel: +49(0)69 400 3 | 3019-60, Mo-Fr.: 09-16 Uhr |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

This mixture is not classified as hazardous in accordance with GB CLP Regulation.

2.2. Label elements

GB CLP Regulation

EUH210

Special labelling of certain mixtures

Safety data sheet available on request.

2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain any components that are considered to be hazardous according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in amounts of 0.1% or more have endocrine disrupting properties. Toxicological information: The substance/mixture does not contain any components that are to be classified according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% or more have endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

aqueous solution



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Relevant ingredients

| CAS No | Chemical name | | | Quantity |
|---------|--|--------------|------------------|----------|
| | EC No | Index No | REACH No | |
| | Classification (GB CLP | Regulation) | | |
| 64-19-7 | Acetic acid% | | | |
| | 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 Co | Specific Conc. Limits, M-factors and ATE | | | | |
|-------------|--|--|-----------|--|--|
| CAS No | EC No | Chemical name | Quantity | | |
| | Specific Conc. | Limits, M-factors and ATE | | | |
| 64-19-7 | 200-580-7 | Acetic acid% | 1 - < 5 % | | |
| | | 50 = >40 mg/l (vapours); oral: LD50 = 3530 mg/kg Skin Corr. 1A; H314: >= 90 - rr. 1B; H314: >= 25 - < 90 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= | | | |

Further Information

This product contains no substances of very high concern (SVHC) (>0,1%) which are included in the Candidate List according to Article 59 of REACH.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. In case of respiratory tract irritation, consult a physician.

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. In case of skin irritation, seek medical treatment.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

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

No information available.

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. Carbon dioxide (CO2). Dry extinguishing powder. alcohol resistant foam. Atomized water.

Unsuitable extinguishing media

High power water jet.



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5.2. Special hazards arising from the substance or mixture

Non-flammable. In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO2). Sodium oxides. The product itself does not burn.

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

General advice

Wear personal protection equipment. See protective measures under section 7 and 8. Avoid contact with skin, eyes and clothes.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

6.3. Methods and material for containment and cleaning up

For cleaning up

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.

Other information

Rinse with water.

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

Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Co-ordinate fire-fighting measures to the fire surroundings. Usual measures for fire prevention.

Advice on general occupational hygiene

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Always close containers tightly after the removal of product.

Further information on handling

Provide adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Hints on joint storage

Do not store together with: Explosive substances. Oxidizing substances. Infectious substances. Radioactive materials. Food and fodder

Further information on storage conditions

Protect from direct sunlight. Recommended storage temperature: 15-25 °C

7.3. Specific end use(s)

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No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

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

DNEL/DMEL values

| CAS No | Substance | | - | |
|--------------------------|--------------|----------------|--------|----------|
| DNEL type | | Exposure route | Effect | Value |
| 64-19-7 | Acetic acid% | | | |
| Worker DNEL, | 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 DNE | EL, acute | inhalation | local | 25 mg/m³ |

PNEC values

| CAS No | Substance | | |
|--------------|--|------------|--|
| Environmen | tal compartment | Value | |
| 64-19-7 | Acetic acid% | | |
| Freshwater | | 3,058 mg/l | |
| Freshwater | 30,58 mg/l | | |
| Marine water | | 0,306 mg/l | |
| Freshwater | 11,36 mg/kg | | |
| Marine sedir | 1,136 mg/kg | | |
| Micro-organ | Micro-organisms in sewage treatment plants (STP) | | |
| Soil | | 0,47 mg/kg | |

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection. Tightly sealed safety glasses. EN 166

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. Pull-over gloves of rubber. EN ISO 374

Suitable material:

(penetration time (maximum wearing period): >= 8 h):

NBR (Nitrile rubber). (0,11 mm)

Protective clothing should be selected, depending on concentration and quantity of the hazardous substance. The chemical resistance of the products should be discussed with suppliers.

Before using check leak tightness / impermeability.



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Skin protection

Wear suitable protective clothing .: Lab apron.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

exceeding exposure limit values

Suitable respiratory protective equipment: Combination filtering device (EN 14387) Typ: A-P-2/3

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used!

Use only respiratory protection equipment with CE-symbol including four digit test number. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Environmental exposure controls

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state: | liquid | |
|---|----------------|---------------------------|
| Colour: | colourless | |
| Odour: | characteristic | |
| Melting point/freezing point: | | ca. 0 °C |
| Boiling point or initial boiling point and | | 100 °C |
| boiling range: | | |
| Flammability: | | not determined |
| Lower explosion limits: | | not determined |
| Upper explosion limits: | | not determined |
| Flash point: | | not determined |
| Auto-ignition temperature: | | not determined |
| Decomposition temperature: | | not determined |
| pH-Value (at 20 °C): | | 5-6 |
| Viscosity / kinematic: | | not determined |
| Water solubility: | | completely miscible |
| (at 20 °C) | | |
| Solubility in other solvents | | |
| not determined | | |
| Partition coefficient n-octanol/water: | | not determined |
| Vapour pressure: | | 23 hPa |
| (at 20 °C) | | |
| Vapour pressure: | | 123 hPa |
| (at 50 °C) | | |
| Density (at 20 °C): | | 1,07 g/cm ³ |
| Relative vapour density: Particle characteristics: | | not determined |
| | | not applicable |
| 9.2. Other information | | |
| Information with regard to physical ha | zard classes | |
| Explosive properties | | |
| The product is not: Explosive. | | |
| Sustaining combustion: | | Not sustaining combustion |
| Oxidizing properties | | |
| none | | |

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Other safety characteristics

Evaporation rate:

not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable under normal storage and handling conditions.

10.3. Possibility of hazardous reactions

Reacts with : Substances that form flammable gases when in contact with water.

10.4. Conditions to avoid

heat.

10.5. Incompatible materials

Substances that form flammable gases when in contact with water. Acid.Further information on storage conditions: see subsection 7.2.

10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon dioxide (CO2). Carbon monoxide The product itself does not burn.

SECTION 11: Toxicological information

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

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 | | | | | |
|---------|-------------------------|---------------|----------|---------|----------------|--------|
| | Exposure route | Dose | | Species | Source | Method |
| 64-19-7 | Acetic acid% | Acetic acid% | | | | |
| | oral | LD50 mg/kg | 3530 | Rat | GESTIS | |
| | inhalation (4 h) vapour | LC50 | >40 mg/l | Rat | suppliers SDS. | |

Irritation and corrosivity

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.

11.2. Information on other hazards

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Endocrine disrupting properties

This product does not contain any substance that has endocrine disrupting properties in humans as no ingredient meets the criteria.

Other information

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

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

| CAS No | Chemical name | | | | | | |
|---------|--------------------------|---------------|------|-----------|-------------------------|--------------|--------|
| | Aquatic toxicity | Dose | | [h] [d] | Species | Source | Method |
| 64-19-7 | Acetic acid% | | | | | | |
| | Acute fish toxicity | LC50 mg/l | >300 | 96 h | Oncorhynchus mykiss | ECHA Dossier | |
| | Acute algae toxicity | ErC50 mg/l | >300 | | Skeletonema costatum | ECHA Dossier | |
| | Acute crustacea toxicity | EC50 mg/l | >300 | 48 h | Daphnia magna | ECHA Dossier | |

12.2. Persistence and degradability

The product has not been tested.

| CAS No | Chemical name | | | | | |
|---------|-----------------|--------------|---|----------------|--|--|
| | Method | Value | d | Source | | |
| | Evaluation | | | · | | |
| 64-19-7 | Acetic acid% | Acetic acid% | | | | |
| | | | | | | |
| | Other guideline | 95% | 5 | suppliers SDS. | | |

12.3. Bioaccumulative potential

The product has not been tested.

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 | | |

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

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

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

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

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13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Non-contaminated packages may be recycled.

List of Wastes Code - residues/unused products

160509 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

List of Wastes Code - used product

160509 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

List of Wastes Code - contaminated packaging

150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); mixed packaging

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

| <u>14.1. UN number or ID number:</u> | 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. |
| Other applicable information (land trans Not restricted | sport) |
| 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. |
| Other applicable information (inland wa Not restricted | terways transport) |
| 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. |
| Other applicable information (marine tr Not restricted | ansport) |
| 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. |
| Other applicable information (air transp Not restricted | port) |
| 14.5. Environmental hazards | |



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| ENVIRONMENTALLY HAZARDOUS: | No | |
| <u>14.6. Special precautions for user</u> No information available. <u>14.7. Maritime transport in bulk according to IMO instruments</u> not applicable | | |
| SECTION 15: Regulatory information | | |
| SECTION 15: Regulatory information | | |
| | ulations/legislation specific for the substance or mixture | |
| | ulations/legislation specific for the substance or mixture | |
| 15.1. Safety, health and environmental regu | | |

Additional information

This mixture is classified as not hazardous according to Regulation (EC) 1272/2008 [CLP].

National regulatory information

Water hazard class (D):

1 - slightly hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out: Acetic acid%

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,4,5,6,7,8,9,11,12,13,15,16. Rev. 2,0; 06.12.2022, Individual safety data sheet based on12142_collect Rev. 2,1; 06.03.2024; general adjustment(s)



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Abbreviations and acronyms

Flam. Lig: Flammable liquids Skin Corr: Skin corrosion ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organization ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO) GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent NOAEL: No observed adverse effect level CLP: Classification, labelling and Packaging REACH: Registration, Evaluation and Authorization of Chemicals GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals **UN: United Nations** DNEL: Derived No Effect Level DMEL: Derived Minimal Effect Level PNEC: Predicted No Effect Concentration ATE: Acute toxicity estimate LL50: Lethal loading, 50% EL50: Effect loading, 50% EC50: Effective Concentration 50% ErC50: Effective Concentration 50%, growth rate NOEC: No Observed Effect Concentration BCF: Bio-concentration factor PBT: persistent, bioaccumulative, toxic vPvB: very persistent, very bioaccumulative ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID: Regulations concerning the international carriage of dangerous goods by rail ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures) EmS: Emergency Schedules MFAG: Medical First Aid Guide MARPOL: International Convention for the Prevention of Marine Pollution from Ships IBC: Intermediate Bulk Container VOC: Volatile Organic Compounds SVHC: Substance of Very High Concern For abbreviations and acronyms, see table at http://abbrev.esdscom.eu For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations). EC/EEC: European Community/European Economic Community EU: European Union M-factor: Multiplying factor IATA: International Air Transport Association

DGR: Dangerous Goods Regulations



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ICAO: International Civil Aviation Organization TI: Technical Instructions VOC: volatile organic compound

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

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 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.)