

Safety Data Sheet

according to Regulation (EC) No 1907/2006

TISAB-Pufferlösung

Revision date: 19.09.2022

Product code: 10686

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

1.1. Product identifier

TISAB-Pufferlösung

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: | Fa. Bernd Kraft GmbH | |
| Street: | Stempelstraße 6 | |
| Place: | D-47167 Duisburg | |
| Telephone: | 0203/5194-0 | Telefax: 0203/5194-290 |
| e-mail: | info@berndkraft.de | |
| Contact person: | Abteilung Produktsicherheit | Telephone: 0203/5194-107/117 |
| e-mail: | produktsicherheit@berndkraft.de | |
| Internet: | www.berndkraft.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

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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Hazardous components

| CAS No | Chemical name | | | Quantity |
|-----------|---|--------------|------------------|------------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 64-19-7 | acetic acid | | | 5 - < 10 % |
| | 200-580-7 | 607-002-00-6 | 01-2119475328-30 | |
| | Flam. Liq. 3, Skin Corr. 1A; H226 H314 | | | |
| 7647-14-5 | sodium chloride | | | 5 - < 10 % |
| | 231-598-3 | | 01-2119485491-33 | |
| | | | | |

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 | | |
| 64-19-7 | 200-580-7 | acetic acid | 5 - < 10 % |
| | inhalation: LC50 = 11,4 mg/l (vapours); oral: LD50 = 3310 mg/kg Skin Corr. 1A; H314: >= 90 - 100 Skin Corr. 1B; H314: >= 25 - < 90 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25 | | |
| 7647-14-5 | 231-598-3 | sodium chloride | 5 - < 10 % |
| | dermal: LD50 = > 10000 mg/kg; oral: LD50 = 3550 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.

After ingestion

Rinse mouth immediately and drink plenty of water.

Call a doctor if you feel unwell.

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.

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Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Non-combustible liquids

5.3. Advice for firefighters

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

Additional information

Use water spray jet to protect personnel and to cool endangered containers.

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

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

Handle and open container with care.

Keep container tightly closed.

Do not breathe vapour/aerosol.

Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Usual measures for fire prevention.

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Advice on general occupational hygiene

Wash contaminated clothing prior to re-use.
Do not breathe vapour/aerosol.
Avoid contact with skin, eyes and clothes.

Further information on handling

Wash contaminated clothing before reuse.
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.

Hints on joint storage

No data available

Further information on storage conditions

Store in a dry place.

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/m ³ | fib/cm ³ | Category | Origin |
|---------|-------------|-----|-------------------|---------------------|---------------|--------|
| 64-19-7 | Acetic acid | 10 | 25 | | TWA (8 h) | |
| | | 20 | 50 | | STEL (15 min) | |

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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/m ³ |
| Worker DNEL, acute | inhalation | local | 25 mg/m ³ |
| Consumer DNEL, long-term | inhalation | local | 25 mg/m ³ |
| Consumer DNEL, acute | inhalation | local | 25 mg/m ³ |
| 7647-14-5 | sodium chloride | | |
| Consumer DNEL, acute | inhalation | systemic | 443,28 mg/m ³ |
| Worker DNEL, long-term | dermal | systemic | 295,52 mg/kg bw/day |
| Consumer DNEL, long-term | dermal | systemic | 126,65 mg/kg bw/day |
| Consumer DNEL, acute | dermal | systemic | 126,65 mg/kg bw/day |
| Consumer DNEL, long-term | oral | systemic | 126,65 mg/kg bw/day |
| Consumer DNEL, acute | oral | systemic | 126,65 mg/kg bw/day |
| Worker DNEL, long-term | inhalation | systemic | 2068,62 mg/m ³ |
| Worker DNEL, acute | inhalation | systemic | 2068,62 mg/m ³ |
| Worker DNEL, acute | dermal | systemic | 295,52 mg/kg bw/day |
| Consumer DNEL, long-term | inhalation | systemic | 443,28 mg/m ³ |

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 sediment | 11,36 mg/kg | |
| Marine sediment | 1,136 mg/kg | |
| Micro-organisms in sewage treatment plants (STP) | 85 mg/l | |
| Soil | 0,47 mg/kg | |
| 7647-14-5 | sodium chloride | |
| Freshwater | 5 mg/l | |
| Micro-organisms in sewage treatment plants (STP) | 500 mg/l | |
| Soil | 4,86 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

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Eye/face 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

Recommended glove articles: KCL 741 Dermatril® L
Recommended material: NBR (Nitrile rubber) 0,11mm
Wearing time with permanent contact: >480min

By short-term hand contact

Recommended glove articles: KCL 741 Dermatril® L
Recommended material: NBR (Nitrile rubber) 0,11mm
Wearing time with occasional contact (splashes): >480min

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

Wear suitable protective clothing.
Wash hands before breaks and after work.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

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: | clear | |
| Odour: | characteristic | |
| Odour threshold: | No data available | |
| Melting point/freezing point: | | No data available |
| Boiling point or initial boiling point and boiling range: | | No data available |
| Flammability | | |
| Solid/liquid: | | No data available |
| Gas: | | 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: | | No data available |
| Viscosity / kinematic: | | No data available |
| Water solubility: | | No data available |
| Solubility in other solvents | | |
| No data available | | |
| Partition coefficient n-octanol/water: | | No data available |

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| | |
|--------------------------|--------------------------|
| Vapour pressure: | No data available |
| Vapour pressure: | No data available |
| Density: | 1,0719 g/cm ³ |
| Bulk density: | No data available |
| Relative vapour density: | No data available |

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 |
| Pour point: | No data available |
| No data available: | |
| Viscosity / dynamic: | No data available |
| Flow time: | No data available |

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

No data available

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

No data available

Further information

No data available

SECTION 11: Toxicological information

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

Toxicokinetics, metabolism and distribution

There are no data available on the mixture itself.

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Acute toxicity

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

| CAS No | Chemical name | | | | | |
|-----------|-------------------------|--------------------|---------|---|--|--|
| | Exposure route | Dose | Species | Source | Method | |
| 64-19-7 | acetic acid | | | | | |
| | oral | LD50 3310 mg/kg | 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 | |
| 7647-14-5 | sodium chloride | | | | | |
| | oral | LD50 3550 mg/kg | Rat | Study report | The study methodology followed appeared | |
| | dermal | LD50 > 10000 mg/kg | Rabbit | Study report | The study methology followed appeared to | |

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.

Specific effects in experiment on an animal

There are no data available on the mixture itself.

Additional information on tests

There are no data available on the mixture itself.

Practical experience

There are no data available on the mixture itself.

11.2. Information on other hazards

Other information

There are no data available on the mixture itself.

Further information

There are no data available on the mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

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| CAS No | Chemical name | | | | | |
|-----------|--------------------------|-------------------|-----------|----------------------|--|--------------------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 64-19-7 | acetic acid | | | | | |
| | Acute fish toxicity | LC50 > 1000 mg/l | 96 h | Oncorhynchus mykiss | Study report (2005) | other: SOP E257 |
| | Acute algae toxicity | ErC50 > 1000 mg/l | 72 h | Skeletonema costatum | Study report (2005) | ISO 10253 |
| | Acute crustacea toxicity | EC50 > 1000 mg/l | 48 h | Daphnia magna | Study report (1990) | OECD Guideline 202 |
| 7647-14-5 | sodium chloride | | | | | |
| | Acute fish toxicity | LC50 5840 mg/l | 96 h | Lepomis macrochirus | Study report (1985) | other: ASTM E729 |
| | Acute crustacea toxicity | EC50 4136 mg/l | 48 h | Daphnia magna | J. fish. Res. Bd. Canada, 29: 1691-1700. | OECD Guideline 202 |
| | Fish toxicity | NOEC 252 mg/l | 33 d | Pimephales promelas | Study report (1985) | OECD Guideline 210 |
| | Crustacea toxicity | NOEC 314 mg/l | 21 d | Daphnia pulex | Memorandum of agreement No. 5429, Kentuc | OECD Guideline 211 |

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 |
|---------|---------------|---------|
| 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.

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

Do not allow to enter into surface water or drains.

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.

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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)

| | |
|--|--|
| 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

National regulatory information

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

Additional information

No data available

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,9,15.

Relevant H and EUH statements (number and full text)

H226 Flammable liquid and vapour.

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

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