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

• Product identifier
  • Trade name: L 4798 / pH=9.18
  • Description: Standard buffer solution pH 9.18 (25 °C)
  • Product code: scho0025
  • Application of the substance / the preparation: Calibration solution
  • Manufacturer/Supplier:
    SI Analytics GmbH
    Hattenbergstr. 10
    55122 Mainz
    Deutschland
    Tel.: +49 6131 66-5111
  • Further information obtainable from: E-Mail: msds@si-analytics.com
  • Emergency telephone number: + 49 89 19240 (Giftnotruf München)

2 Hazards identification

• Classification of the substance or mixture
  • Classification according to Directive 67/548/EEC or Directive 1999/45/EC Void

• Label elements
  • Labelling according to EU guidelines:
    The mixture is not subject to classification according to the calculation methods of the "General Classification
    Guideline for Preparations of the EU" as issued in the latest valid version.
  • Special labelling of certain preparations:
    Safety data sheet available for professional user on request.

3 Composition/information on ingredients

• Chemical characterization: Mixtures
  • Description:
    Mixture, consisting of the following components:
    Water, disodium tetraborate decahydrate

• Dangerous components:

<table>
<thead>
<tr>
<th>CAS:</th>
<th>Disodium tetraborate, decahydrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS:</td>
<td>T Repr. Cat. 2 R60-61 ≤1.0%</td>
</tr>
<tr>
<td>Index number:</td>
<td></td>
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<tr>
<td>1303-96-4</td>
<td></td>
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</tbody>
</table>

• SVHC

| 1303-96-4       | Disodium tetraborate, decahydrate |

4 First aid measures

• Description of first aid measures
  • After inhalation: Supply fresh air.
  • After skin contact:
    Wash off with water.
    Remove contaminated clothes.
  • After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

(Contd. on page 2)
5 Firefighting measures

- **Extinguishing media**
  - Suitable extinguishing agents: The product is not flammable. Extinguishing agent to suit environment.
- **Special hazards arising from the substance or mixture** Boron oxide
- **Advice for firefighters**
  - Protective equipment: Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - No special measurements required when handled properly.
- **Environmental precautions**: No special measures required.
- **Methods and material for containment and cleaning up**:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7 Handling and storage

- **Handling**:
  - No special precautions are necessary if used correctly.
  - Information about fire - and explosion protection: No special measures required.
- **Conditions for safe storage, including any incompatibilities**
  - Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: Store at room temperature (15-25 °C).

8 Exposure controls/personal protection

- **Additional information about design of technical facilities**: No further data; see item 7.
- **Control parameters**
  - Ingredients with limit values that require monitoring at the workplace:
    - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - Additional information: The lists valid during the making were used as basis.
- **Exposure controls**
  - Personal protective equipment:
    - General protective and hygienic measures:
      - Avoid contact with the eyes and skin.
      - Change contaminated clothing.
      - Wash hands before breaks and at the end of work.
  - Respiratory protection: Not required.
  - Protection of hands: Protective gloves recommended for frequent or long-term skin contact.
  - Material of gloves
    - Nitrile rubber, NBR
    - Recommended thickness of the material: ≥ 0,35 mm
  - Eye protection: Safety glasses
  - Body protection: Light weight protective clothing
9 Physical and chemical properties

- Information on basic physical and chemical properties

  - General Information
  - Appearance:
    - Form: Fluid
    - Colour: Colourless
  - Odour: Odourless

  - pH-value at 25°C: 9,18

  - Change in condition
    - Melting point/Melting range: -0,3°C
    - Boiling point/Boiling range: Undetermined.

  - Flash point: Not applicable.

  - Danger of explosion: Product does not present an explosion hazard.

  - Vapour pressure at 25°C: ca. 22 hPa

  - Density: 0,9996 g/cm³

  - Solubility in / Miscibility with water: Fully miscible.

  - Viscosity:
    - Kinematic at 25°C: 1,1 mm²/s

10 Stability and reactivity

- Reactivity
  - Chemical stability
  - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

- Possibility of hazardous reactions
  - No dangerous reactions known.

- Hazardous decomposition products: In case of fire, see section 5.

11 Toxicological information

- Information on toxicological effects

  - Acute toxicity:

    | LD/LC50 values relevant for classification: |
    |---------------------------------------------|
    | 1303-96-4 Disodium tetraborate, decahydrate |
    | Oral LD50 2660 mg/kg (Rat) (RTECS)          |
    | Dermal LD50 >2000 mg/kg (Rat) (IUCLID)      |

- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritating effect.
  - Sensitization: No sensitizing effects known.

- Additional toxicological information:
  - When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
  - The substance is not subject to classification according to the latest version of the EU lists.
12 Ecological information

- **Toxicity**

<table>
<thead>
<tr>
<th>1303-96-4 Disodium tetraborate, decahydrate</th>
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<tbody>
<tr>
<td>EC50</td>
</tr>
<tr>
<td>LC50</td>
</tr>
</tbody>
</table>

- **Additional ecological information:**
  - General notes: Generally not hazardous for water

13 Disposal considerations

- **Waste treatment methods**
  - Recommendation:
    Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**
  - 06 00 00 WASTES FROM INORGANIC CHEMICAL PROCESSES
  - 06 03 00 wastes from the MFSU of salts and their solutions and metallic oxides
  - 06 03 14 solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

- **Uncleaned packaging:**
  - Recommendation:
    Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning. Packagings that may not be cleansed are to be disposed of in the same manner as the product.
  - Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

- **Land transport ADR/RID (cross-border)**: No hazardous material as defined in the directives.
- **Maritime transport IMDG**: No hazardous material as defined in the directives.
- **Marine pollutant**: No
- **Air transport ICAO-TI and IATA-DGR**: No hazardous material as defined in the directives.

15 Regulatory information

- **Chemical safety assessment**: A Chemical Safety Assessment has not been carried out.

16 Other information

- Relevant phrases
  - R60 May impair fertility.
  - R61 May cause harm to the unborn child.
- Abbreviations and acronyms:
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - 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)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent