

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 30.01.2023

Version number 3 (replaces version 2)

Revision: 26.01.2023

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

### 1.1 Product identifier

· **Trade name:** L 4797 / pH=1,68· **Article number:** 285137985-Set1· **Description:** Standard buffer solution pH 1.68 (25 °C)

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

· **Product category:** PC21 Laboratory chemicals· **Process category:** PROC15 Use as laboratory reagent· **Application of the substance / the preparation:** Calibration solution

### 1.3 Details of the supplier of the safety data sheet

#### · **Manufacturer/Supplier:**

Xylem Analytics Germany GmbH  
Dr.-Karl-Slevogt-Str. 1  
82362 Weilheim  
Germany

Contact: SI Analytics, Mainz  
Tel. +49.(0)6131.66.5111

· **Further information obtainable from:** E-Mail: msds.si@xylem.com

### 1.4 Emergency telephone number: Chemtrec: (USA & Canada) 800-424-9300 (International) 001 703-527-3887

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008:** The product is not classified, according to the CLP regulation.

### 2.2 Label elements:

· **Labelling according to Regulation (EC) No 1272/2008:** Void· **Hazard pictograms:** Void· **Signal word:** Void· **Hazard statements:** Void· **Additional information:**

EUH210 Safety data sheet available on request.

### 2.3 Other hazards No further relevant information available.

## SECTION 3: Composition/information on ingredients


### 3.2 Mixtures

#### · **Description:**

Mixture, consisting of the following components:

Water, potassium tetraoxalate dihydrate

#### · **Dangerous components:**

CAS: 6100-20-5 EINECS: 204-874-6 Index number: 607-007-00-3	salts of oxalic acid	 Acute Tox. 4, H302; Acute Tox. 4, H312	1-5%
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· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

### · 4.1 Description of first aid measures

- **General information:** Take off contaminated clothing and wash it before reuse.
- **After inhalation:** Supply fresh air.
- **After skin contact:**  
Wash with plenty of water.  
Take off immediately all contaminated clothing and wash it before reuse.  
If skin irritation or rash occurs: Get medical advice/attention.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
Seek immediate medical advice.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

## SECTION 5: Firefighting measures

### · 5.1 Extinguishing media

- **Suitable extinguishing agents:** The product is not flammable. Extinguishing agent to suit environment.

· **5.2 Special hazards arising from the substance or mixture** No hazards to be particularly mentioned.

### · 5.3 Advice for firefighters

- **Protective equipment:** No special measures required.

## SECTION 6: Accidental release measures

### · 6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Wear personal protective equipment (see section 8).

· **6.2 Environmental precautions:** No special measures required.

### · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

### · 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.

- **Information about fire - and explosion protection:** No special measures required.

### · 7.2 Conditions for safe storage, including any incompatibilities

- **Requirements to be met by storerooms and receptacles:** No special requirements.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:** Store tightly sealed at temperatures between 15 °C and 25 °C.

· **7.3 Specific end use(s)** No further relevant information available.

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## SECTION 8: Exposure controls/personal protection

### · 8.1 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.

### · 8.2 Exposure controls

· **Appropriate engineering controls** No further data; see item 7.

#### · Individual protection measures, such as personal protective equipment

##### · General protective and hygienic measures:

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

Take off contaminated clothing and wash it before reuse.

Wash hands before breaks and at the end of work.

· **Respiratory protection:** Not required.

· **Hand protection** Protective gloves

· **Material of gloves** Nitrile rubber, NBR

· **Eye/face protection** Safety glasses

· **Body protection:** Light weight protective clothing

· **Environmental exposure controls** Not hazardous for water.

## SECTION 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · General Information

· **Colour:**

Colourless

· **Odour:**

Odourless

· **Melting point/freezing point:**

Undetermined.

· **Boiling point or initial boiling point and boiling range**

100 °C

· **Flammability**

Product is not flammable.

· **Flash point:**

Not applicable.

· **pH at 20 °C**

1.68

· **Viscosity:**

· **Kinematic viscosity**

Not determined.

· **Dynamic:**

Not determined.

· **Solubility**

· **water:**

Fully miscible.

· **Vapour pressure at 20 °C:**

23 hPa

· **Density and/or relative density**

· **Density at 20 °C:**

1.01 g/cm<sup>3</sup>

### · 9.2 Other information

· **Important information on protection of health and environment, and on safety.**

· **Explosive properties:**

Product does not present an explosion hazard.

· **Information with regard to physical hazard classes**

· **Explosives**

Void

· **Flammable gases**

Void

· **Aerosols**

Void

· **Oxidising gases**

Void

· **Gases under pressure**

Void

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· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases	
in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Oxidizing agents
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
  - **Acute toxicity** Based on available data, the classification criteria are not met.
  - **Skin corrosion/irritation** Local irritation possible.
  - **Serious eye damage/irritation** Irritation possible.
  - **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
  - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
  - **Carcinogenicity** Based on available data, the classification criteria are not met.
  - **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.
- **11.2 Information on other hazards**

### · Endocrine disrupting properties

None of the ingredients is listed.

## SECTION 12: Ecological information

- **12.1 Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment** Not applicable.
- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

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## · 12.7 Other adverse effects

· **General notes:** Not hazardous for water.

### · **Additional ecological information:**

· **General notes:**

Not hazardous for water.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

· **Additional ecological information:** Not hazardous for water.

## SECTION 13: Disposal considerations

### · 13.1 Waste treatment methods

#### · **Recommendation**

Disposal must comply with the relevant local regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.

#### · **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.

## SECTION 14: Transport information

### · 14.1 UN number or ID number

· **ADR/RID, ADN, IMDG, IATA** Void

### · 14.2 UN proper shipping name

· **ADR/RID, ADN, IMDG, IATA** Void

### · 14.3 Transport hazard class(es)

· **ADR/RID, ADN, IMDG, IATA**

· **Class** Void

### · 14.4 Packing group

· **ADR/RID, IMDG, IATA** Void

### · 14.5 Environmental hazards:

Not applicable.

### · 14.6 Special precautions for user

Not applicable.

### · 14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

· **UN "Model Regulation":**

Void

EU

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## SECTION 15: Regulatory information

### · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### · Directive 2012/18/EU

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

#### · **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

#### · **REGULATION (EU) 2019/1148**

##### · **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

##### · **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

##### · **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

##### · **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

### · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

#### · **Relevant phrases**

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

#### · **Date of previous version:** 06.04.2022

#### · **Version number of previous version:** 2

#### · **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord relatif au transport international 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 Harmonised 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 (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

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

### 1.1 Product identifier

- Trade name: **L 4797 / pH=6,87**

- Article number: 285137985-Set2

- Description: Standard buffer solution pH 6.87 (25 °C)

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

- Product category: PC21 Laboratory chemicals

- Process category: PROC15 Use as laboratory reagent

- Application of the substance / the preparation: Calibration solution

### 1.3 Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

Xylem Analytics Germany GmbH  
Dr.-Karl-Slevogt-Str. 1  
82362 Weilheim  
Germany

Contact: SI Analytics, Mainz  
Tel. +49.(0)6131.66.5111

- Further information obtainable from: E-Mail: [msds.si@xylem.com](mailto:msds.si@xylem.com)

### 1.4 Emergency telephone number: Chemtrec: (USA & Canada) 800-424-9300 (International) 001 703-527-3887

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008: The product is not classified, according to the CLP regulation.

### 2.2 Label elements:

- Labelling according to Regulation (EC) No 1272/2008: Void

- Hazard pictograms: Void

- Signal word: Void

- Hazard statements: Void

### 2.3 Other hazards No further relevant information available.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Description:

Mixture, consisting of the following components:

Water, disodium hydrogen phosphate, potassium dihydrogen phosphate

- Dangerous components: Void

- Additional information: For the wording of the listed hazard phrases refer to section 16.

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## SECTION 4: First aid measures

- **4.1 Description of first aid measures**
  - **General information:** Take off contaminated clothing and wash it before reuse.
  - **After inhalation:** Supply fresh air.
  - **After skin contact:** Rinse skin with water [or shower].
  - **After eye contact:** Rinse opened eye for several minutes under running water.
  - **After swallowing:** Get medical advice/attention if you feel unwell.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

## SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
  - **Suitable extinguishing agents:** The product is not flammable. Extinguishing agent to suit environment.
- **5.2 Special hazards arising from the substance or mixture** No hazards to be particularly mentioned.
- **5.3 Advice for firefighters**
  - **Protective equipment:** No special measures required.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:** Wash off with water.
- **6.4 Reference to other sections** No dangerous substances are released.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
  - **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
  - **Requirements to be met by storerooms and receptacles:** No special requirements.
  - **Information about storage in one common storage facility:** Not required.
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **8.1 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.
- **8.2 Exposure controls**
  - **Appropriate engineering controls** No further data; see item 7.
  - **Individual protection measures, such as personal protective equipment**
    - **General protective and hygienic measures:**  
Avoid contact with the eyes and skin.  
Take off contaminated clothing and wash it before reuse.  
Wash hands before breaks and at the end of work.
    - **Respiratory protection:** Not required.

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- **Hand protection** Not required.
- **Eye/face protection** Safety glasses
- **Environmental exposure controls** Not hazardous for water.

## SECTION 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · General Information

· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Odourless
· <b>Melting point/freezing point:</b>	-0.3 °C
· <b>Boiling point or initial boiling point and boiling range</b>	100 °C
· <b>Flammability</b>	Product is not flammable.
· <b>Flash point:</b>	Not applicable.
· <b>pH at 20 °C</b>	6.87
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined.
· <b>Dynamic:</b>	Not determined.
· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.
· <b>Vapour pressure at 20 °C:</b>	23 hPa
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1 g/cm <sup>3</sup>

### · 9.2 Other information

#### · Important information on protection of health and environment, and on safety.

- **Explosive properties:** Product does not present an explosion hazard.

#### · Information with regard to physical hazard classes

· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.

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- **10.2 Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
  - **Acute toxicity** Based on available data, the classification criteria are not met.
  - **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
  - **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
  - **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
  - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
  - **Carcinogenicity** Based on available data, the classification criteria are not met.
  - **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.
- **11.2 Information on other hazards**

#### · Endocrine disrupting properties

None of the ingredients is listed.

### SECTION 12: Ecological information

- **12.1 Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment** Not applicable.
- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
  - **General notes:** Not hazardous for water.
  - **Additional ecological information:**
    - **General notes:** Not hazardous for water.
  - **Additional ecological information:** Not hazardous for water.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
  - **Recommendation**  
Disposal must comply with the relevant local regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.

#### · 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

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· **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.

## SECTION 14: Transport information

· <b>14.1 UN number or ID number</b>	
· <b>ADR/RID, ADN, IMDG, IATA</b>	Void
· <b>14.2 UN proper shipping name</b>	
· <b>ADR/RID, ADN, IMDG, IATA</b>	Void
· <b>14.3 Transport hazard class(es)</b>	
· <b>ADR/RID, ADN, IMDG, IATA</b>	
· <b>Class</b>	Void
· <b>14.4 Packing group</b>	
· <b>ADR/RID, IMDG, IATA</b>	Void
· <b>14.5 Environmental hazards:</b>	Not applicable.
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>UN "Model Regulation":</b>	Void

## SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

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

### SECTION 16: Other information

· **Date of previous version:** 06.04.2022

· **Version number of previous version:** 2

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord relatif au transport international 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 Harmonised 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 (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

### 1.1 Product identifier

· **Trade name:** L 4797 / pH=9,18· **Article number:** 285137985-Set3· **Description:** Standard buffer solution pH 9.18 (25 °C)

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

· **Product category:** PC21 Laboratory chemicals· **Process category:** PROC15 Use as laboratory reagent· **Application of the substance / the preparation:** Calibration solution

### 1.3 Details of the supplier of the safety data sheet

#### · **Manufacturer/Supplier:**

Xylem Analytics Germany GmbH  
Dr.-Karl-Slevogt-Str. 1  
82362 Weilheim  
Germany

Contact: SI Analytics, Mainz  
Tel. +49.(0)6131.66.5111

· **Further information obtainable from:** E-Mail: msds.si@xylem.com

### 1.4 Emergency telephone number: Chemtrec: (USA & Canada) 800-424-9300 (International) 001 703-527-3887

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008:**

GHS08 health hazard

Repr. 1B H360FD May damage fertility. May damage the unborn child.

### 2.2 Label elements:

· **Labelling according to Regulation (EC) No 1272/2008:**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms:** GHS08· **Signal word:** Danger· **Hazard-determining components of labelling:**

Disodium tetraborate, decahydrate

· **Hazard statements:**

H360FD May damage fertility. May damage the unborn child.

· **Precautionary statements:**

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

· **Additional information:**

Restricted to professional users.

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· **2.3 Other hazards** No further relevant information available.

## SECTION 3: Composition/information on ingredients


### · 3.2 Mixtures

#### · Description:

Mixture, consisting of the following components:

Water, disodium tetraborate decahydrate

#### · Dangerous components:

CAS: 1303-96-4 EINECS: 215-540-4 Index number: 005-011-00-4	Disodium tetraborate, decahydrate	 Repr. 1B, H360FD	0.1-≤1%
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#### · SVHC

1303-96-4	Disodium tetraborate, decahydrate
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· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

### · 4.1 Description of first aid measures

· **After inhalation:** Supply fresh air.

· **After skin contact:**

Wash with plenty of water.

Take off immediately all contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Seek immediate medical advice.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

## SECTION 5: Firefighting measures

### · 5.1 Extinguishing media

· **Suitable extinguishing agents:** The product is not flammable. Extinguishing agent to suit environment.

· **5.2 Special hazards arising from the substance or mixture** Boron oxide

### · 5.3 Advice for firefighters

· **Protective equipment:** Wear self-contained respiratory protective device.

## SECTION 6: Accidental release measures

### · 6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment (see section 8).

· **6.2 Environmental precautions:** No special measures required.

### · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

### · 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
  - **Requirements to be met by storerooms and receptacles:** No special requirements.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:** Store tightly sealed at temperatures between 15 °C and 25 °C.
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **8.1 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.
- **8.2 Exposure controls**
  - **Appropriate engineering controls** No further data; see item 7.
  - **Individual protection measures, such as personal protective equipment**
    - **General protective and hygienic measures:**  
Avoid contact with the eyes and skin.  
Do not inhale gases / fumes / aerosols.  
Take off contaminated clothing and wash it before reuse.  
Wash hands before breaks and at the end of work.
    - **Respiratory protection:** Use suitable respiratory protective device only when aerosol or mist is formed.
      - **Recommended filter device for short term use:** Combination filter B-P2
    - **Hand protection** Protective gloves
      - **Material of gloves** Nitrile rubber, NBR
    - **Eye/face protection** Safety glasses
  - **Environmental exposure controls** Not hazardous for water.

## SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
  - **General Information**

· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Odourless
· <b>Melting point/freezing point:</b>	-0.3 °C
· <b>Boiling point or initial boiling point and boiling range</b>	100 °C
· <b>Flammability</b>	Product is not flammable.
· <b>Flash point:</b>	Not applicable.
· <b>pH at 20 °C</b>	9.18
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined.
· <b>Dynamic:</b>	Not determined.
· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.

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· Vapour pressure at 20 °C:	23 hPa
· Density and/or relative density	
· Density at 20 °C:	1 g/cm <sup>3</sup>
· 9.2 Other information	
· Important information on protection of health and environment, and on safety.	
· Explosive properties:	Product does not present an explosion hazard.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** In case of fire, see section 5.

## SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
  - **Acute toxicity** Based on available data, the classification criteria are not met.

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

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.

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## · Reproductive toxicity

May damage fertility. May damage the unborn child.

· **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

### · Endocrine disrupting properties

None of the ingredients is listed.

## SECTION 12: Ecological information

### · 12.1 Toxicity

#### · Aquatic toxicity:

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

EC50 1085 – 1402 mg/l, 48 h (Daphnia magna) (IUCLID)

LC50 630 mg/l, 72 h (Carassius auratus) (IUCLID)

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **12.5 Results of PBT and vPvB assessment** Not applicable.

· **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

### · 12.7 Other adverse effects

· **General notes:** Not hazardous for water.

#### · Additional ecological information:

· **General notes:** Not hazardous for water.

· **Additional ecological information:** Not hazardous for water.

## SECTION 13: Disposal considerations

### · 13.1 Waste treatment methods

#### · Recommendation

Disposal must comply with the relevant local regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.

#### · 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
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#### · 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.

## SECTION 14: Transport information

### · 14.1 UN number or ID number

· **ADR/RID, ADN, IMDG, IATA**

Void

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· 14.2 UN proper shipping name	
· ADR/RID, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es)	
· ADR/RID, ADN, IMDG, IATA	
· Class	Void
· 14.4 Packing group	
· ADR/RID, IMDG, IATA	Void
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Not applicable.
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· UN "Model Regulation":	Void

## SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I None of the ingredients is listed.

· REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 30

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· REGULATION (EU) 2019/1148

· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· National regulations:

· Other regulations, limitations and prohibitive regulations

· Substances of very high concern (SVHC) according to REACH, Article 57

1303-96-4 Disodium tetraborate, decahydrate

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

· Relevant phrases

H360FD May damage fertility. May damage the unborn child.

· Date of previous version: 06.04.2022

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**· Version number of previous version: 2****· Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord relatif au transport international 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 Harmonised 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 (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Repr. 1B: Reproductive toxicity – Category 1B

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