

### Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 28.11.2024

Version number 30 (replaces version 29)

Revision: 28.11.2024

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

· **1.1 Product identifier**

· **Product name:** Buffer pH 4

· **Catalog number:** 00515621, 515620BT, 515621BT, 4515620BT, 4515621BT, 00515629BT

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

· **Application of the substance / the preparation:** Reagent for water analysis

· **1.3 Details of the supplier of the safety data sheet**

· **Supplier:**

Tintometer GmbH  
Schleefstraße 8-12  
44287 Dortmund  
Made in Germany  
www.lovibond.com

phone: +49 (0)231 94510-0  
e-mail: sales@lovibond.com

The Tintometer Limited  
Lovibond® House  
Sun Rise Way  
Amesbury  
Wiltshire SP4 7GR  
United Kingdom

phone : +44 1980 664800  
e-mail: SDS@lovibond.uk

· **Informing department:**

e-mail: sds@lovibond.com  
Product Safety Department

· **1.4 Emergency telephone number:**

+44 1235 239670  
Languages: English

Lieferant / Supplier  
Carl Roth GmbH + Co KG  
Schoemperlenstr. 3-5  
76185 Karlsruhe, Germany  
+49 721 5606 0  
sicherheit@carlroth.de

#### 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 as hazardous according to the GB 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.

· **Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

· **Determination of endocrine-disrupting properties**

The product does not contain substances with endocrine disrupting properties.

#### SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Description:** Mixture of organic and inorganic compounds

· **Dangerous components:** Void

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Product name: **Buffer pH 4**

(Contd. of page 1)

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information** Instantly remove any clothing soiled by the product.
- **After inhalation** Supply fresh air.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water (at least 15 min). If symptoms persist, consult doctor.
- **After swallowing**  
Rinse out mouth and then drink 1-2 glasses of water.  
In case of persistent symptoms consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed:** irritations
- **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** Water, Carbon dioxide (CO<sub>2</sub>), Foam, Fire-extinguishing powder
- **For safety reasons unsuitable extinguishing agents**  
For this substance / mixture no limitations of extinguishing agents are given.
- **5.2 Special hazards arising from the substance or mixture**  
combustible  
Formation of toxic gases is possible during heating or in case of fire.  
Carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>)
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained breathing apparatus.  
Wear full protective suit.
- **Additional information**  
Collect contaminated fire fighting water separately. It must not enter drains.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Ambient fire may liberate hazardous vapours.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
- **Advice for non-emergency personnel:** No special measures required.
- **Advice for emergency responders:** Protective equipment: see section 8
- **6.2 Environmental precautions:** Do not allow product to reach sewage system or water bodies.
- **6.3 Methods and material for containment and cleaning up:**  
Ensure adequate ventilation.  
Collect mechanically.  
Dispose of contaminated material as waste according to item 13.
- **6.4 Reference to other sections**  
See Section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
- **Advice on safe handling:** No special precautions necessary if used correctly.
- **Hygiene measures:**  
The usual precautionary measures should be adhered to general rules for handling chemicals.  
Do not eat, drink or smoke when using this product.  
Wash hands during breaks and at the end of the work.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Store in cool, dry conditions in well sealed containers.

(Contd. on page 3)

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**Product name: Buffer pH 4**

(Contd. of page 2)

- Protect from heat and direct sunlight.
- Protect from the effects of light.
- Protect from humidity and keep away from water.
- **Recommended storage temperature:** 20°C +/- 5°C
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

#### · 8.1 Control parameters

##### · Components with limit values that require monitoring at the workplace:

**CAS: 9004-34-6 cellulose**

WEL (Great Britain)	Short-term value: 20* mg/m <sup>3</sup> Long-term value: 10* 4** mg/m <sup>3</sup> *inhalable dust **respirable
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· **Regulatory information** WEL (Great Britain): EH40/2020

· **Additional information:** The lists that were valid during the compilation were used as basis.

#### · 8.2 Exposure controls

##### · Engineering measures:

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See item 7.

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

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled.

##### · Eye/face protection

Safety glasses

use against the effects of fumes / dust

Use safety glasses that have been tested and approved in accordance with government standards such as EN 166.

##### · Hand protection

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

##### · Material of gloves

nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

##### · Penetration time of glove material

Value for the permeation: Level = 1 (< 10 min )

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

##### · Other skin protection (body protection):

Protective work clothing.

##### · Breathing equipment:

Use breathing protection against the effects of fumes/dust/aerosol.

##### · Recommended filter device for short term use:

Filter P1

##### · Environmental exposure controls

Do not allow product to reach sewage system or water bodies.

### SECTION 9: Physical and chemical properties

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

- **Physical state** Solid.
- **Form:** Tablets
- **Colour:** Pink
- **Odour:** Odourless
- **Odour threshold:** Not applicable.
- **Melting point/Freezing point:** Not determined.
- **Boiling point or initial boiling point and boiling range** Not determined.
- **Flammability** Not determined.
- **Explosive properties:** The product is not capable of dust explosion in the form supplied; enrichment with fine dust causes risk of dust explosion
- **Lower and upper explosion limit**
  - **Lower:** Not determined.
  - **Upper:** Not applicable (solid).
- **Flash point:** Not determined.

(Contd. on page 4)

GB

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**Product name: Buffer pH 4**

(Contd. of page 3)

· <b>Auto-ignition temperature:</b>	Not applicable (solid).
· <b>Decomposition temperature:</b>	Not determined.
· <b>pH at 20°C</b>	4
· <b>Kinematic viscosity</b>	Not applicable (solid).
· <b>Solubility</b>	
· <b>Water:</b>	Partly soluble
· <b>Partition coefficient n-octanol/water (log value)</b>	Not applicable (mixture).
· <b>Vapour pressure:</b>	Not applicable (solid).
· <b>Density and/or relative density</b>	
· <b>Density:</b>	Not determined.
· <b>Relative density:</b>	Not determined.
· <b>Relative gas density</b>	Not applicable (solid).
· <b>Particle characteristics</b>	Not determined.
<b>· 9.2 Other information</b>	
<b>· Information with regard to physical hazard classes</b>	
· <b>Corrosive to metals</b>	Void
· <b>Other safety characteristics</b>	
· <b>Oxidising properties:</b>	none
· <b>Additional information</b>	
· <b>Solids content:</b>	100 %
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	0.0 %

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** Dust can combine with air to form an explosive mixture.
- **10.2 Chemical stability** Stable at ambient temperature (room temperature).
- **10.3 Possibility of hazardous reactions**  
Reacts with strong oxidizing agents  
Nitric acid
- **10.4 Conditions to avoid** Strong heating (decomposition)
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** 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.
- **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.
- **Information on components:**
- **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 (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.
- **STOT (specific target organ toxicity) -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** The product does not contain substances with endocrine disrupting properties.
- **Other information**  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

— GB —  
(Contd. on page 5)

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Version number 30 (replaces version 29)

Revision: 28.11.2024

Product name: Buffer pH 4

(Contd. of page 4)

### 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**  
This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.
- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects** Avoid transfer into the environment.
- **Water hazard:**  
Do not allow product to reach ground water, water bodies or sewage system.  
Danger to drinking water if even small quantities leak into soil.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Disposal must be made according to official regulations.  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

<b>European waste catalogue</b>	
16 05 09	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

### SECTION 14: Transport information

- |   |  |
|---|--|
| · <b>14.1 UN number or ID number</b>                                  | Void   |
| · <b>ADR, IMDG, IATA</b>  |  |
| · <b>14.2 UN proper shipping name</b>                                 | Void   |
| · <b>ADR, IMDG, IATA</b>  |  |
| · <b>14.3 Transport hazard class(es)</b>                              |  |
| · <b>ADR, IMDG, IATA</b>  |  |
| · <b>Class</b>  | Void   |
| · <b>14.4 Packing group</b>   | Void   |
| · <b>ADR, IMDG, IATA</b>  |  |
| · <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>Transport/Additional information:</b>                            | Not dangerous according to the above specifications. |

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Poisons Act UK**

<b>Regulated explosives precursors</b>
None of the ingredients is listed.

<b>Regulated poisons</b>
None of the ingredients is listed.

(Contd. on page 6)

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**Product name: Buffer pH 4**

(Contd. of page 5)

· <b>Reportable explosives precursors</b>
None of the ingredients is listed.
· <b>Reportable poisons</b>
None of the ingredients is listed.
· <b>Regulation (EU) 2019/1148 on the marketing and use of explosives precursors</b> not regulated
· <b>Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals (PIC)</b>
None of the ingredients is listed.
· <b>Regulation (EC) No 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology:</b>
None of the ingredients is listed.
· <b>Regulation (EC) No 273/2004 on drug precursors</b>
None of the ingredients is listed.
· <b>Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors</b>
None of the ingredients is listed.
· <b>REGULATION (EU) 2024/590 on substances that deplete the ozone layer</b>
None of the ingredients is listed.
· <b>REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)</b>
None of the ingredients is listed.
· <b>LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)</b>
None of the ingredients is listed.
· <b>Substances of very high concern (SVHC) according to REACH, Article 57</b> This product does not contain any substances of very high concern above the legal concentration limit of $\geq 0.1\%$ (w / w).
· <b>Substances of very high concern (SVHC) according to UK REACH</b> This product does not contain any substances of very high concern above the legal concentration limit of $\geq 0.1\%$ (w / w).
· <b>Directive 2012/18/EU (SEVESO III):</b>
· <b>Named dangerous substances - ANNEX I</b> None of the ingredients is listed.
· <b>Information about limitation of use:</b> Not required.
· <b>15.2 Chemical safety assessment:</b> A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

· **Training hints** Provide adequate information, instruction and training for operators.

· **Abbreviations and acronyms:**

OECD: Organisation for Economic Co-operation and Development

STOT: specific target organ toxicity

SE: single exposure

RE: repeated exposure

EC50: half maximal effective concentration

IC50: half maximal inhibitory concentration

NOEL or NOEC: No Observed Effect Level or Concentration

ADR: Accord relatif au transport international 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

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

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

· **Sources** Data arise from safety data sheets, reference works and literature.

· **\* Data compared to the previous version altered.**