








# FLYLEAF

## Article: 20H5 ROTI®Prep DNA Micro for molecular biology

Date of compilation: 29.03.2023

### 1 Composition/information on ingredients

#### Bill of materials

| Name of substance  | Identifier                                     | Number of pieces | Classification acc. to GHS                                                                                                                 | Pictograms                                                                                                                                                                  | Page    |
|--------------------|------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Proteinase K       | CAS No<br>39450-01-6<br><br>EC No<br>254-457-8 | 1                | Skin Irrit. 2 / H315<br>Eye Irrit. 2 / H319<br>Resp. Sens. 1 / H334<br>Skin Sens. 1A / H317<br>STOT SE 3 / H335                            |     | 5 – 17  |
| Lysis Buffer LSM   |                                                | 1                | Eye Irrit. 2 / H319                                                                                                                        |                                                                                        | 18 – 33 |
| Binding Buffer BSM |                                                | 1                | Flam. Liq. 2 / H225<br>Eye Irrit. 2 / H319<br>STOT SE 3 / H336                                                                             |   | 34 – 51 |
| Washing Buffer WSA |                                                | 1                | Acute Tox. 4 / H302<br>Acute Tox. 4 / H312<br>Acute Tox. 4 / H332<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Aquatic Chronic 3 / H412 |   | 52 – 69 |
| Washing Buffer WST |                                                | 1                |                                                                                                                                            |                                                                                                                                                                             | 70 – 80 |
| Elution Buffer EB  |                                                | 1                |                                                                                                                                            |                                                                                                                                                                             | 81 – 91 |

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## 2 Hazards identification

### 2.1 Label elements

**Signal word** Danger

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

**Pictograms**

Danger.



**Hazard statement(s)**

|      |                                                                           |
|------|---------------------------------------------------------------------------|
| H225 | Highly flammable liquid and vapour                                        |
| H302 | Harmful if swallowed                                                      |
| H314 | Causes severe skin burns and eye damage                                   |
| H317 | May cause an allergic skin reaction                                       |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| H335 | May cause respiratory irritation                                          |
| H336 | May cause drowsiness or dizziness                                         |
| H412 | Harmful to aquatic life with long lasting effects                         |

**Precautionary statements**

**Precautionary statements - prevention**

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

**Supplemental hazard information**

EUH032 Contact with acids liberates very toxic gas

**Hazardous ingredients for labelling:** Proteinase K,  
2-Propanol,  
Guanidine thiocyanate,

## 3 Transport information

### 3.1 UN number or ID number

|             |         |
|-------------|---------|
| ADR/RID/ADN | UN 3316 |
| IMDG-Code   | UN 3316 |
| ICAO-TI     | UN 3316 |

### 3.2 UN proper shipping name

|             |              |
|-------------|--------------|
| ADR/RID/ADN | CHEMICAL KIT |
| IMDG-Code   | CHEMICAL KIT |
| ICAO-TI     | Chemical kit |

### 3.3 Transport hazard class(es)

|             |   |
|-------------|---|
| ADR/RID/ADN | 9 |
| IMDG-Code   | 9 |
| ICAO-TI     | 9 |

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### 3.4 Packing group

|             |    |
|-------------|----|
| ADR/RID/ADN | II |
| IMDG-Code   | II |
| ICAO-TI     | II |

### 3.5 Environmental hazards

not assigned

### 3.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

### 3.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

### 3.8 Information for each of the UN Model Regulations

#### **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information**

|                                       |                                  |
|---------------------------------------|----------------------------------|
| Proper shipping name                  | CHEMICAL KIT                     |
| Particulars in the transport document | UN3316, CHEMICAL KIT, 9, II, (E) |
| Classification code                   | M11                              |
| Special provisions (SP)               | 251, 340                         |
| Excepted quantities (EQ)              | -> SP340                         |
| Limited quantities (LQ)               | -> SP251                         |
| Transport category (TC)               | 2                                |
| Tunnel restriction code (TRC)         | E                                |

#### **International Maritime Dangerous Goods Code (IMDG) - Additional information**

|                                          |                             |
|------------------------------------------|-----------------------------|
| Proper shipping name                     | CHEMICAL KIT                |
| Particulars in the shipper's declaration | UN3316, CHEMICAL KIT, 9, II |
| Marine pollutant                         | -                           |
| Danger label(s)                          | 9                           |



|                          |                  |
|--------------------------|------------------|
| Special provisions (SP)  | 251, 340         |
| Excepted quantities (EQ) | -> SP340         |
| Limited quantities (LQ)  | -> SP251         |
| EmS                      | F-A, <u>S</u> -P |
| Stowage category         | A                |

#### **International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information**

|                                          |                             |
|------------------------------------------|-----------------------------|
| Proper shipping name                     | Chemical kit                |
| Particulars in the shipper's declaration | UN3316, Chemical kit, 9, II |
| Danger label(s)                          | 9                           |



|                         |           |
|-------------------------|-----------|
| Special provisions (SP) | A44, A163 |
|-------------------------|-----------|



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Excepted quantities (EQ)

E0

Limited quantities (LQ)

1 kg

# Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)



## Proteinase K

article number:  
Version: **5.0 en**  
Replaces version of: 22.12.2021  
Version: (4)

date of compilation: 26.10.2015  
Revision: 27.01.2023

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

### 1.1 Product identifier

|                                 |                     |
|---------------------------------|---------------------|
| Identification of the substance | <b>Proteinase K</b> |
| Article number                  |                     |
| Index number in CLP Annex VI    | 647-014-00-9        |
| EC number                       | 254-457-8           |
| CAS number                      | 39450-01-6          |

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

|                           |                                                                                                               |
|---------------------------|---------------------------------------------------------------------------------------------------------------|
| Relevant identified uses: | Laboratory chemical<br>Laboratory and analytical use                                                          |
| Uses advised against:     | Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household). |

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

Carl Roth GmbH + Co KG  
Schoemperlenstr. 3-5  
D-76185 Karlsruhe  
Germany

**Telephone:**+49 (0) 721 - 56 06 0  
**Telefax:** +49 (0) 721 - 56 06 149  
**e-mail:** sicherheit@carlroth.de  
**Website:** www.carlroth.de

Competent person responsible for the safety data sheet: :Department Health, Safety and Environment

**e-mail (competent person):** **sicherheit@carlroth.de**

### 1.4 Emergency telephone number

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class                                                                    | Category | Hazard class and category | Hazard statement |
|---------|---------------------------------------------------------------------------------|----------|---------------------------|------------------|
| 3.2     | Skin corrosion/irritation                                                       | 2        | Skin Irrit. 2             | H315             |
| 3.3     | Serious eye damage/eye irritation                                               | 2        | Eye Irrit. 2              | H319             |
| 3.4R    | Respiratory sensitisation                                                       | 1        | Resp. Sens. 1             | H334             |
| 3.4S    | Skin sensitisation                                                              | 1A       | Skin Sens. 1A             | H317             |
| 3.8R    | Specific target organ toxicity - single exposure (respiratory tract irritation) | 3        | STOT SE 3                 | H335             |

For full text of abbreviations: see SECTION 16

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## Proteinase K

article number:

### 2.2 Label elements

#### Labelling according to Regulation (EC) No 1272/2008 (CLP)

##### Signal word

**Danger**

##### Pictograms

GHS07, GHS08



##### Hazard statements

|      |                                                                           |
|------|---------------------------------------------------------------------------|
| H315 | Causes skin irritation                                                    |
| H317 | May cause an allergic skin reaction                                       |
| H319 | Causes serious eye irritation                                             |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| H335 | May cause respiratory irritation                                          |

##### Precautionary statements

###### Precautionary statements - prevention

|      |                                       |
|------|---------------------------------------|
| P260 | Do not breathe dust                   |
| P280 | Wear protective gloves/eye protection |

###### Precautionary statements - response

|           |                                                                   |
|-----------|-------------------------------------------------------------------|
| P342+P311 | If experiencing respiratory symptoms: Call a POISON CENTER/doctor |
|-----------|-------------------------------------------------------------------|

##### Labelling of packages where the contents do not exceed 125 ml

Signal word: **Danger**

Symbol(s)



|           |                                                                            |
|-----------|----------------------------------------------------------------------------|
| H317      | May cause an allergic skin reaction.                                       |
| H334      | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| P280      | Wear protective gloves/eye protection.                                     |
| P342+P311 | If experiencing respiratory symptoms: Call a POISON CENTER/doctor.         |

### 2.3 Other hazards

#### Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                   |              |
|-------------------|--------------|
| Name of substance | Proteinase K |
| CAS No            | 39450-01-6   |
| EC No             | 254-457-8    |
| Index No          | 647-014-00-9 |

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### SECTION 4: First aid measures

#### 4.1 Description of first aid measures



##### General notes

Take off contaminated clothing.

##### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

##### Following skin contact

Rinse skin with water/shower. After contact with skin, wash immediately with plenty of water. In case of skin reactions, consult a physician. In case of skin irritation, consult a physician.

##### Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

##### Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

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

Irritation, Cough, Dyspnoea, Allergic reactions (such as skin rashes, hives, asthma or anaphylactic shock)

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media



##### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings  
water, foam, dry extinguishing powder, ABC-powder

##### Unsuitable extinguishing media

water jet

#### 5.2 Special hazards arising from the substance or mixture

Combustible.

##### Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), May produce toxic fumes of carbon monoxide if burning.

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

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### SECTION 6: Accidental release measures

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



##### For non-emergency personnel

Avoid contact with skin, eyes and clothes. Do not breathe dust.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water.

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

##### Advice on how to contain a spill

Covering of drains. Take up mechanically.

##### Advice on how to clean up a spill

Take up mechanically. Control of dust.

##### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Provision of sufficient ventilation. Avoid dust formation.

##### Measures to prevent fire as well as aerosol and dust generation

Removal of dust deposits.

##### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

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

Keep in a cool place.

##### Incompatible substances or mixtures

Observe hints for combined storage.

##### Protect against external exposure, such as

high temperatures, humidity, UV-radiation/sunlight

##### Consideration of other advice:

##### Ventilation requirements

Use local and general ventilation.

#### 7.3 Specific end use(s)

No information available.



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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### National limit values

##### Occupational exposure limit values (Workplace Exposure Limits)

This information is not available.

#### 8.2 Exposure controls

##### Individual protection measures (personal protective equipment)

##### Eye/face protection



Use safety goggle with side protection.

##### Skin protection



##### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. 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. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

##### • type of material

NBR (Nitrile rubber)

##### • material thickness

>0,11 mm

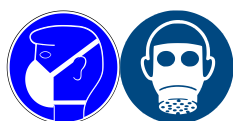
##### • breakthrough times of the glove material

>480 minutes (permeation: level 6)

##### • other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

##### Respiratory protection



Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P2 (filters at least 94 % of airborne particles, colour code: White).

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### Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                          |                                                           |
|----------------------------------------------------------|-----------------------------------------------------------|
| Physical state                                           | solid                                                     |
| Form                                                     | powder                                                    |
| Colour                                                   | whitish                                                   |
| Odour                                                    | characteristic                                            |
| Melting point/freezing point                             | not determined                                            |
| Boiling point or initial boiling point and boiling range | not determined                                            |
| Flammability                                             | this material is combustible, but will not ignite readily |
| Lower and upper explosion limit                          | not determined                                            |
| Flash point                                              | not applicable                                            |
| Auto-ignition temperature                                | not determined                                            |
| Decomposition temperature                                | not relevant                                              |
| pH (value)                                               | 6,2 – 6,8 (20 °C) (aqueous solution of the substance)     |
| Kinematic viscosity                                      | not relevant                                              |

#### Solubility(ies)

Water solubility (soluble)

#### Partition coefficient

Partition coefficient n-octanol/water (log value): this information is not available

Vapour pressure not determined

#### Density and/or relative density

Density not determined

Relative vapour density information on this property is not available

Particle characteristics No data available.

#### Other safety parameters

Oxidising properties none

### 9.2 Other information

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Information with regard to physical hazard classes:

hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics:

There is no additional information.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

**Violent reaction with:** strong oxidiser

### 10.4 Conditions to avoid

UV-radiation/sunlight. Keep away from heat. Contact with air/oxygen.

### 10.5 Incompatible materials

There is no additional information.

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

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

**Classification according to GHS (1272/2008/EC, CLP)**

#### Acute toxicity

Shall not be classified as acutely toxic.

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Causes serious eye irritation.

#### Respiratory or skin sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

#### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

#### Carcinogenicity

Shall not be classified as carcinogenic.

#### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

#### Specific target organ toxicity - single exposure

May cause respiratory irritation.

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### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

### Symptoms related to the physical, chemical and toxicological characteristics

#### • If swallowed

Data are not available.

#### • If in eyes

Causes serious eye irritation

#### • If inhaled

Irritation to respiratory tract, May produce an allergic reaction, cough, Dyspnoea

#### • If on skin

causes skin irritation, May produce an allergic reaction, pruritis, localised redness

#### • Other information

none

### 11.2 Endocrine disrupting properties

Not listed.

### 11.3 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Endocrine disrupting properties

Not listed.

### 12.7 Other adverse effects

Data are not available.

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

##### Sewage disposal-relevant information

Do not empty into drains.

#### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

##### Properties of waste which render it hazardous

- HP 4 irritant - skin irritation and eye damage
- HP 5 specific target organ toxicity (STOT)/aspiration toxicity
- HP 13 sensitising

#### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

### SECTION 14: Transport information

- |                                                                                           |                                                                       |
|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 14.1 UN number or ID number                                                               | not subject to transport regulations                                  |
| 14.2 UN proper shipping name                                                              | not assigned                                                          |
| 14.3 Transport hazard class(es)                                                           | none                                                                  |
| 14.4 Packing group                                                                        | not assigned                                                          |
| 14.5 Environmental hazards                                                                | non-environmentally hazardous acc. to the dangerous goods regulations |
| 14.6 Special precautions for user                                                         | There is no additional information.                                   |
| 14.7 Maritime transport in bulk according to IMO instruments                              | The cargo is not intended to be carried in bulk.                      |
| 14.8 <u>Information for each of the UN Model Regulations</u>                              |                                                                       |
| <b>International Maritime Dangerous Goods Code (IMDG) - Additional information</b>        | Not subject to IMDG.                                                  |
| <b>International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information</b> | Not subject to ICAO-IATA.                                             |

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### SECTION 15: Regulatory information

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

##### Relevant provisions of the European Union (EU)

##### Restrictions according to REACH, Annex XVII

| Dangerous substances with restrictions (REACH, Annex XVII) |                                                 |        |             |    |
|------------------------------------------------------------|-------------------------------------------------|--------|-------------|----|
| Name of substance                                          | Name acc. to inventory                          | CAS No | Restriction | No |
| Proteinase K                                               | substances in tattoo inks and permanent make-up |        | R75         | 75 |

##### Legend

- R75 1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such substances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question is or are present in the following circumstances:
- in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
  - in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as reproductive toxicant category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
  - in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin sensitiser category 1, 1A or 1B, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
  - in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2, or as serious eye damage category 1 or eye irritant category 2, the substance is present in the mixture in a concentration equal to or greater than:
    - 0,1 % by weight, if the substance is used solely as a pH regulator;
    - 0,01 % by weight, in all other cases;
  - in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (\*1), the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
  - in the case of a substance for which a condition of one or more of the following kinds is specified in column g (Product type, Body parts) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight:
    - "Rinse-off products";
    - "Not to be used in products applied on mucous membranes";
    - "Not to be used in eye products";
  - in the case of a substance for which a condition is specified in column h (Maximum concentration in ready for use preparation) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration, or in some other way, that does not accord with the condition specified in that column;
  - in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a concentration equal to or greater than the concentration limit specified for that substance in that Appendix.
2. For the purposes of this entry use of a mixture "for tattooing purposes" means injection or introduction of the mixture into a person's skin, mucous membrane or eyeball, by any process or procedure (including procedures commonly referred to as permanent make-up, cosmetic tattooing, micro-blading and micro-pigmentation), with the aim of making a mark or design on his or her body.
3. If a substance not listed in Appendix 13 falls within more than one of points (a) to (g) of paragraph 1, the strictest concentration limit laid down in the points in question shall apply to that substance. If a substance listed in Appendix 13 also falls within one or more of points (a) to (g) of paragraph 1, the concentration limit laid down in point (h) of paragraph 1 shall apply to that substance.
4. By way of derogation, paragraph 1 shall not apply to the following substances until 4 January 2023:
  - Pigment Blue 15:3 (CI 74160, EC No 205-685-1, CAS No 147-14-8);
  - Pigment Green 7 (CI 74260, EC No 215-524-7, CAS No 1328-53-6).
5. If Part 3 of Annex VI to Regulation (EC) No 1272/2008 is amended after 4 January 2021 to classify or re-classify a substance such that the substance then becomes caught by point (a), (b), (c) or (d) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the date of application of that new or revised classification is after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect on the date of application of that new or revised classification.
6. If Annex II or Annex IV to Regulation (EC) No 1223/2009 is amended after 4 January 2021 to list or change the listing of a substance such that the substance then becomes caught by point (e), (f) or (g) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the amendment takes effect after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect from the date falling 18 months after entry into force of the act by which that amendment was made.
7. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022, the mixture is marked with the following information:
  - the statement "Mixture for use in tattoos or permanent make-up";
  - a reference number to uniquely identify the batch;
  - the list of ingredients in accordance with the nomenclature established in the glossary of common ingredient names pursuant to Article 33 of Regulation (EC) No 1223/2009, or in the absence of a common ingredient name, the IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients shall be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Impurities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the meaning of

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article number:

### Legend

this entry, is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008, that ingredient does not need to be marked in accordance with this Regulation;  
(d) the additional statement "pH regulator" for substances falling under point (d)(i) of paragraph 1;  
(e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentration limit specified in Appendix 13;  
(f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration limit specified in Appendix 13;  
(g) safety instructions for use insofar as they are not already required to be stated on the label by Regulation (EC) No 1272/2008.

The information shall be clearly visible, easily legible and marked in a way that is indelible.

The information shall be written in the official language(s) of the Member State(s) where the mixture is placed on the market, unless the Member State(s) concerned provide(s) otherwise.

Where necessary because of the size of the package, the information listed in the first subparagraph, except for point (a), shall be included instead in the instructions for use.

Before using a mixture for tattooing purposes, the person using the mixture shall provide the person undergoing the procedure with the information marked on the package or included in the instructions for use pursuant to this paragraph.

8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.

9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).

10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

### List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

Not listed.

### Seveso Directive

| 2012/18/EU (Seveso III) |                                       |                                                                                       |       |
|-------------------------|---------------------------------------|---------------------------------------------------------------------------------------|-------|
| No                      | Dangerous substance/hazard categories | Qualifying quantity (tonnes) for the application of lower and upper-tier requirements | Notes |
|                         | not assigned                          |                                                                                       |       |

### Deco-Paint Directive

|             |     |
|-------------|-----|
| VOC content | 0 % |
|-------------|-----|

### Industrial Emissions Directive (IED)

|             |     |
|-------------|-----|
| VOC content | 0 % |
|-------------|-----|

### Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

### Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

### Water Framework Directive (WFD)

not listed

### Regulation on the marketing and use of explosives precursors

not listed

### Regulation on drug precursors

not listed

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### Regulation on substances that deplete the ozone layer (ODS)

not listed

### Regulation concerning the export and import of hazardous chemicals (PIC)

not listed

### Regulation on persistent organic pollutants (POP)

not listed

### Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

### National inventories

| Country | Inventory | Status              |
|---------|-----------|---------------------|
| CN      | IECSC     | substance is listed |
| EU      | ECSI      | substance is listed |
| JP      | ISHA-ENCS | substance is listed |
| NZ      | NZIoC     | substance is listed |
| TW      | TCSI      | substance is listed |

#### Legend

|           |                                                                         |
|-----------|-------------------------------------------------------------------------|
| ECSI      | EC Substance Inventory (EINECS, ELINCS, NLP)                            |
| IECSC     | Inventory of Existing Chemical Substances Produced or Imported in China |
| ISHA-ENCS | Inventory of Existing and New Chemical Substances (ISHA-ENCS)           |
| NZIoC     | New Zealand Inventory of Chemicals                                      |
| TCSI      | Taiwan Chemical Substance Inventory                                     |

## 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value)                                                                                                                  | Actual entry (text/value) | Safety-relevant |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------|
| 14.8    | Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information:<br>Not subject to ADR, RID and ADN. |                           | yes             |

### Abbreviations and acronyms

| Abbr. | Descriptions of used abbreviations                                                                                                                                                |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ADR   | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)                     |
| CAS   | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)                                                                            |
| CLP   | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures                                                                                |
| DGR   | Dangerous Goods Regulations (see IATA/DGR)                                                                                                                                        |
| EC No | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) |



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| Abbr.    | Descriptions of used abbreviations                                                                                       |
|----------|--------------------------------------------------------------------------------------------------------------------------|
| EINECS   | European Inventory of Existing Commercial Chemical Substances                                                            |
| ELINCS   | European List of Notified Chemical Substances                                                                            |
| GHS      | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations                |
| IATA     | International Air Transport Association                                                                                  |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA)                                                           |
| ICAO     | International Civil Aviation Organization                                                                                |
| IMDG     | International Maritime Dangerous Goods Code                                                                              |
| index No | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 |
| NLP      | No-Longer Polymer                                                                                                        |
| PBT      | Persistent, Bioaccumulative and Toxic                                                                                    |
| REACH    | Registration, Evaluation, Authorisation and Restriction of Chemicals                                                     |
| SVHC     | Substance of Very High Concern                                                                                           |
| VOC      | Volatile Organic Compounds                                                                                               |
| vPvB     | Very Persistent and very Bioaccumulative                                                                                 |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### List of relevant phrases (code and full text as stated in section 2 and 3)

| Code | Text                                                                       |
|------|----------------------------------------------------------------------------|
| H315 | Causes skin irritation.                                                    |
| H317 | May cause an allergic skin reaction.                                       |
| H319 | Causes serious eye irritation.                                             |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation.                                          |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

# Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



## Lysis Buffer LSM

article number:  
Version: **2.0 en**  
Replaces version of: 07.03.2023  
Version: (1)

date of compilation: 07.03.2023  
Revision: 29.03.2023

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

### 1.1 Product identifier

Identification of the substance **Lysis Buffer LSM**  
Registration number (REACH) not relevant (mixture)

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

Relevant identified uses: Laboratory and analytical use  
Laboratory chemical  
Uses advised against: Do not use for private purposes (household).  
Food, drink and animal feedingstuffs.

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

Carl Roth GmbH + Co KG  
Schoemperlenstr. 3-5  
D-76185 Karlsruhe  
Germany

**Telephone:**+49 (0) 721 - 56 06 0

**Telefax:** +49 (0) 721 - 56 06 149

**e-mail:** sicherheit@carlroth.de

**Website:** www.carlroth.de

Competent person responsible for the safety data sheet: :Department Health, Safety and Environment

**e-mail (competent person):** sicherheit@carlroth.de

### 1.4 Emergency telephone number

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class                      | Cat-egory | Hazard class and category | Hazard statement |
|---------|-----------------------------------|-----------|---------------------------|------------------|
| 3.3     | Serious eye damage/eye irritation | 2         | Eye Irrit. 2              | H319             |

For full text of abbreviations: see SECTION 16

### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

**Signal word** Warning

**Pictograms**

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article number:

GHS07



### Hazard statements

H319 Causes serious eye irritation

### Precautionary statements

#### Precautionary statements - prevention

P280 Wear protective gloves/eye protection

#### Precautionary statements - response

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

#### Labelling of packages where the contents do not exceed 125 ml

Signal word: **Warning**

Symbol(s)



## 2.3 Other hazards

### Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0,1\%$ .

### Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .



## SECTION 3: Composition/information on ingredients

### 3.1 Substances

not relevant (mixture)

### 3.2 Mixtures

#### Description of the mixture

| Name of substance      | Identifier                                   | Wt%  | Classification acc. to GHS                                                                   | Pictograms                                                                                                                                                                  | Notes |
|------------------------|----------------------------------------------|------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Sodium dodecyl sulfate | CAS No<br>151-21-3<br><br>EC No<br>205-788-1 | <2,5 | Acute Tox. 4 / H302<br>Skin Irrit. 2 / H315<br>Eye Dam. 1 / H318<br>Aquatic Chronic 3 / H412 |   |       |

| Name of substance      | Identifier                                   | Specific Conc. Limits | M-Factors | ATE       | Exposure route |
|------------------------|----------------------------------------------|-----------------------|-----------|-----------|----------------|
| Sodium dodecyl sulfate | CAS No<br>151-21-3<br><br>EC No<br>205-788-1 | -                     | -         | 977 mg/kg | oral           |

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## Lysis Buffer LSM

article number:

For full text of abbreviations: see SECTION 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Take off contaminated clothing.

#### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

Rinse skin with water/shower.

#### Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

#### Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

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

Irritation

### 4.3 Indication of any immediate medical attention and special treatment needed

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media



#### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings  
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

water jet

### 5.2 Special hazards arising from the substance or mixture

Non-combustible.

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

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## Lysis Buffer LSM

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### SECTION 6: Accidental release measures

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



##### For non-emergency personnel

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water.

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

##### Advice on how to contain a spill

Covering of drains.

##### Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

##### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

No special measures are necessary.

##### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

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

Keep container tightly closed.

##### Incompatible substances or mixtures

Observe hints for combined storage.

##### Consideration of other advice:

##### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

#### 7.3 Specific end use(s)

No information available.

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## Lysis Buffer LSM

article number:

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### National limit values

##### Occupational exposure limit values (Workplace Exposure Limits)

This information is not available.

| Relevant DNELs of components of the mixture |          |           |                       |                                    |                   |                            |
|---------------------------------------------|----------|-----------|-----------------------|------------------------------------|-------------------|----------------------------|
| Name of substance                           | CAS No   | End-point | Threshold level       | Protection goal, route of exposure | Used in           | Exposure time              |
| Sodium dodecyl sulfate                      | 151-21-3 | DNEL      | 285 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| Sodium dodecyl sulfate                      | 151-21-3 | DNEL      | 4.060 mg/kg bw/day    | human, dermal                      | worker (industry) | chronic - systemic effects |

| Relevant PNECs of components of the mixture |          |           |                 |                       |                              |                              |
|---------------------------------------------|----------|-----------|-----------------|-----------------------|------------------------------|------------------------------|
| Name of substance                           | CAS No   | End-point | Threshold level | Organism              | Environmental compartment    | Exposure time                |
| Sodium dodecyl sulfate                      | 151-21-3 | PNEC      | 0,176 mg/l      | aquatic organisms     | freshwater                   | short-term (single instance) |
| Sodium dodecyl sulfate                      | 151-21-3 | PNEC      | 0,018 mg/l      | aquatic organisms     | marine water                 | short-term (single instance) |
| Sodium dodecyl sulfate                      | 151-21-3 | PNEC      | 1,35 mg/l       | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| Sodium dodecyl sulfate                      | 151-21-3 | PNEC      | 6,97 mg/kg      | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| Sodium dodecyl sulfate                      | 151-21-3 | PNEC      | 0,697 mg/kg     | aquatic organisms     | marine sediment              | short-term (single instance) |
| Sodium dodecyl sulfate                      | 151-21-3 | PNEC      | 1,29 mg/kg      | terrestrial organisms | soil                         | short-term (single instance) |

#### 8.2 Exposure controls

##### Individual protection measures (personal protective equipment)

##### Eye/face protection



Use safety goggle with side protection.

##### Skin protection



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### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. 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. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

### • type of material

NBR (Nitrile rubber)

### • material thickness

>0,11 mm

### • breakthrough times of the glove material

>480 minutes (permeation: level 6)

### • other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

### Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Usually no personal respirative protection necessary.

### Environmental exposure controls

Keep away from drains, surface and ground water.

## 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                             | not determined      |
| Boiling point or initial boiling point and boiling range | 100 °C at 1.013 hPa |
| Flammability                                             | non-combustible     |
| Lower and upper explosion limit                          | not determined      |
| Flash point                                              | not determined      |
| Auto-ignition temperature                                | not determined      |
| Decomposition temperature                                | not relevant        |
| pH (value)                                               | 6,5 (20 °C)         |
| Kinematic viscosity                                      | not determined      |

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## Lysis Buffer LSM

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### Solubility(ies)

Water solubility miscible in any proportion

### Partition coefficient

Partition coefficient n-octanol/water (log value): not relevant (inorganic)

Vapour pressure 23 hPa at 20 °C

### Density and/or relative density

Density ~1 g/cm<sup>3</sup> at 20 °C

Relative vapour density information on this property is not available

Particle characteristics not relevant (liquid)

### Other safety parameters

Oxidising properties none

## 9.2 Other information

Information with regard to physical hazard classes: hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics:

Miscibility completely miscible with water

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

There is no additional information.

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.



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### SECTION 11: Toxicological information

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

Test data are not available for the complete mixture.

##### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

##### Classification according to GHS (1272/2008/EC, CLP)

##### Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity estimate (ATE) of components of the mixture |          |                |           |
|------------------------------------------------------------|----------|----------------|-----------|
| Name of substance                                          | CAS No   | Exposure route | ATE       |
| Sodium dodecyl sulfate                                     | 151-21-3 | oral           | 977 mg/kg |

| Acute toxicity of components of the mixture |          |                |          |              |         |
|---------------------------------------------|----------|----------------|----------|--------------|---------|
| Name of substance                           | CAS No   | Exposure route | Endpoint | Value        | Species |
| Sodium dodecyl sulfate                      | 151-21-3 | oral           | LD50     | 977 mg/kg    | rat     |
| Sodium dodecyl sulfate                      | 151-21-3 | dermal         | LD50     | >2.000 mg/kg | rat     |

##### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

##### Serious eye damage/eye irritation

Causes serious eye irritation.

##### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

##### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

##### Carcinogenicity

Shall not be classified as carcinogenic.

##### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

##### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

##### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

##### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

##### Symptoms related to the physical, chemical and toxicological characteristics

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- **If swallowed**

Data are not available.

- **If in eyes**

Causes serious eye irritation

- **If inhaled**

Data are not available.

- **If on skin**

Data are not available.

- **Other information**

none

### 11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

### 11.3 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

#### Aquatic toxicity (acute) of components of the mixture

| Name of substance      | CAS No   | Endpoint | Value     | Species | Exposure time |
|------------------------|----------|----------|-----------|---------|---------------|
| Sodium dodecyl sulfate | 151-21-3 | LC50     | 29 mg/l   | fish    | 96 h          |
| Sodium dodecyl sulfate | 151-21-3 | ErC50    | >120 mg/l | algae   | 72 h          |

#### Aquatic toxicity (chronic) of components of the mixture

| Name of substance      | CAS No   | Endpoint | Value    | Species        | Exposure time |
|------------------------|----------|----------|----------|----------------|---------------|
| Sodium dodecyl sulfate | 151-21-3 | EC50     | 135 mg/l | microorganisms | 3 h           |

### 12.2 Persistence and degradability

#### Degradability of components of the mixture

| Name of substance      | CAS No   | Process                   | Degradation rate | Time | Method | Source |
|------------------------|----------|---------------------------|------------------|------|--------|--------|
| Sodium dodecyl sulfate | 151-21-3 | biotic/abiotic            | 90 %             | 28 d |        |        |
| Sodium dodecyl sulfate | 151-21-3 | carbon dioxide generation | 95 %             | 28 d |        | ECHA   |

### 12.3 Bioaccumulative potential

Data are not available.

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### Bioaccumulative potential of components of the mixture

| Name of substance      | CAS No   | BCF | Log KOW        | BOD5/COD |
|------------------------|----------|-----|----------------|----------|
| Sodium dodecyl sulfate | 151-21-3 |     | ≤-2,03 (20 °C) |          |

#### 12.4 Mobility in soil

Data are not available.

#### 12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of ≥ 0,1%.

#### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0,1%.

#### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains.

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

## SECTION 14: Transport information

- |                                                              |                                                                       |
|--------------------------------------------------------------|-----------------------------------------------------------------------|
| 14.1 UN number or ID number                                  | not subject to transport regulations                                  |
| 14.2 UN proper shipping name                                 | not assigned                                                          |
| 14.3 Transport hazard class(es)                              | none                                                                  |
| 14.4 Packing group                                           | not assigned                                                          |
| 14.5 Environmental hazards                                   | non-environmentally hazardous acc. to the dangerous goods regulations |
| 14.6 Special precautions for user                            | There is no additional information.                                   |
| 14.7 Maritime transport in bulk according to IMO instruments | The cargo is not intended to be carried in bulk.                      |

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## Lysis Buffer LSM

article number:

### 14.8 Information for each of the UN Model Regulations

#### International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

#### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

## SECTION 15: Regulatory information

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

#### Relevant provisions of the European Union (EU)

#### Restrictions according to REACH, Annex XVII

| Dangerous substances with restrictions (REACH, Annex XVII) |                                                                                                  |        |             |    |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------|-------------|----|
| Name of substance                                          | Name acc. to inventory                                                                           | CAS No | Restriction | No |
| Lysis Buffer LSM                                           | this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC |        | R3          | 3  |
| Sodium dodecyl sulfate                                     | substances in tattoo inks and permanent make-up                                                  |        | R75         | 75 |

#### Legend

- R3
1. Shall not be used in:
    - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
    - tricks and jokes,
    - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
  2. Articles not complying with paragraph 1 shall not be placed on the market.
  3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
    - can be used as fuel in decorative oil lamps for supply to the general public, and
    - present an aspiration hazard and are labelled with H304.
  4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
  5. Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
    - (a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil – or even sucking the wick of lamps – may lead to life-threatening lung damage";
    - (b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter fluid may lead to life threatening lung damage";
    - (c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.;

## Lysis Buffer LSM

article number:

### Legend

- R75
1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such substances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question is or are present in the following circumstances:
    - (a) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
    - (b) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as reproductive toxicant category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
    - (c) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin sensitiser category 1, 1A or 1B, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
    - (d) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2, or as serious eye damage category 1 or eye irritant category 2, the substance is present in the mixture in a concentration equal to or greater than:
      - (i) 0,1 % by weight, if the substance is used solely as a pH regulator;
      - (ii) 0,01 % by weight, in all other cases;
    - (e) in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (\*1), the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
    - (f) in the case of a substance for which a condition of one or more of the following kinds is specified in column g (Product type, Body parts) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight:
      - (i) "Rinse-off products";
      - (ii) "Not to be used in products applied on mucous membranes";
      - (iii) "Not to be used in eye products";
    - (g) in the case of a substance for which a condition is specified in column h (Maximum concentration in ready for use preparation) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration, or in some other way, that does not accord with the condition specified in that column;
    - (h) in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a concentration equal to or greater than the concentration limit specified for that substance in that Appendix.
  2. For the purposes of this entry use of a mixture "for tattooing purposes" means injection or introduction of the mixture into a person's skin, mucous membrane or eyeball, by any process or procedure (including procedures commonly referred to as permanent make-up, cosmetic tattooing, micro-blading and micro-pigmentation), with the aim of making a mark or design on his or her body.
  3. If a substance not listed in Appendix 13 falls within more than one of points (a) to (g) of paragraph 1, the strictest concentration limit laid down in the points in question shall apply to that substance. If a substance listed in Appendix 13 also falls within one or more of points (a) to (g) of paragraph 1, the concentration limit laid down in point (h) of paragraph 1 shall apply to that substance.
  4. By way of derogation, paragraph 1 shall not apply to the following substances until 4 January 2023:
    - (a) Pigment Blue 15:3 (CI 74160, EC No 205-685-1, CAS No 147-14-8);
    - (b) Pigment Green 7 (CI 74260, EC No 215-524-7, CAS No 1328-53-6).
  5. If Part 3 of Annex VI to Regulation (EC) No 1272/2008 is amended after 4 January 2021 to classify or re-classify a substance such that the substance then becomes caught by point (a), (b), (c) or (d) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the date of application of that new or revised classification is after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect on the date of application of that new or revised classification.
  6. If Annex II or Annex IV to Regulation (EC) No 1223/2009 is amended after 4 January 2021 to list or change the listing of a substance such that the substance then becomes caught by point (e), (f) or (g) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the amendment takes effect after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect from the date falling 18 months after entry into force of the act by which that amendment was made.
  7. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022, the mixture is marked with the following information:
    - (a) the statement "Mixture for use in tattoos or permanent make-up";
    - (b) a reference number to uniquely identify the batch;
    - (c) the list of ingredients in accordance with the nomenclature established in the glossary of common ingredient names pursuant to Article 33 of Regulation (EC) No 1223/2009, or in the absence of a common ingredient name, the IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients shall be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Impurities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the meaning of this entry, is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008, that ingredient does not need to be marked in accordance with this Regulation;
    - (d) the additional statement "pH regulator" for substances falling under point (d)(i) of paragraph 1;
    - (e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentration limit specified in Appendix 13;
    - (f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration limit specified in Appendix 13;
    - (g) safety instructions for use insofar as they are not already required to be stated on the label by Regulation (EC) No 1272/2008.The information shall be clearly visible, easily legible and marked in a way that is indelible. The information shall be written in the official language(s) of the Member State(s) where the mixture is placed on the market, unless the Member State(s) concerned provide(s) otherwise. Where necessary because of the size of the package, the information listed in the first subparagraph, except for point (a), shall be included instead in the instructions for use. Before using a mixture for tattooing purposes, the person using the mixture shall provide the person undergoing the procedure with the information marked on the package or included in the instructions for use pursuant to this paragraph.
  8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.

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article number:

### Legend

9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).

10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

### List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

None of the ingredients are listed.

### Seveso Directive

| 2012/18/EU (Seveso III) |                                       |                                                                                       |       |
|-------------------------|---------------------------------------|---------------------------------------------------------------------------------------|-------|
| No                      | Dangerous substance/hazard categories | Qualifying quantity (tonnes) for the application of lower and upper-tier requirements | Notes |
|                         | not assigned                          |                                                                                       |       |

### Deco-Paint Directive

|                                            |           |
|--------------------------------------------|-----------|
| VOC content                                | 2,4 %     |
| VOC content (Water content was discounted) | 1.112 g/l |

### Industrial Emissions Directive (IED)

|                                            |       |
|--------------------------------------------|-------|
| VOC content                                | 0 %   |
| VOC content (Water content was discounted) | 0 g/l |

### Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

### Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

### Water Framework Directive (WFD)

| List of pollutants (WFD) |                            |        |           |         |
|--------------------------|----------------------------|--------|-----------|---------|
| Name of substance        | Name acc. to inventory     | CAS No | Listed in | Remarks |
| Sodium dodecyl sulfate   | Metals and their compounds |        | a)        |         |

### Legend

A) Indicative list of the main pollutants

### Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

### Regulation on drug precursors

none of the ingredients are listed

### Regulation on substances that deplete the ozone layer (ODS)

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none of the ingredients are listed

### Regulation concerning the export and import of hazardous chemicals (PIC)

none of the ingredients are listed

### Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

### Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

### National inventories

| Country | Inventory  | Status                                 |
|---------|------------|----------------------------------------|
| AU      | AIIC       | all ingredients are listed             |
| CA      | DSL        | all ingredients are listed             |
| CN      | IECSC      | all ingredients are listed             |
| EU      | ECSI       | all ingredients are listed             |
| EU      | REACH Reg. | all ingredients are listed             |
| JP      | CSCL-ENCS  | all ingredients are listed             |
| KR      | KECI       | all ingredients are listed             |
| MX      | INSQ       | all ingredients are listed             |
| NZ      | NZIoC      | all ingredients are listed             |
| PH      | PICCS      | all ingredients are listed             |
| TR      | CICR       | not all ingredients are listed         |
| TW      | TCSI       | all ingredients are listed             |
| US      | TSCA       | all ingredients are listed as "ACTIVE" |

#### Legend

|            |                                                                         |
|------------|-------------------------------------------------------------------------|
| AIIC       | Australian Inventory of Industrial Chemicals                            |
| CICR       | Chemical Inventory and Control Regulation                               |
| CSCL-ENCS  | List of Existing and New Chemical Substances (CSCL-ENCS)                |
| DSL        | Domestic Substances List (DSL)                                          |
| ECSI       | EC Substance Inventory (EINECS, ELINCS, NLP)                            |
| IECSC      | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ       | National Inventory of Chemical Substances                               |
| KECI       | Korea Existing Chemicals Inventory                                      |
| NZIoC      | New Zealand Inventory of Chemicals                                      |
| PICCS      | Philippine Inventory of Chemicals and Chemical Substances (PICCS)       |
| REACH Reg. | REACH registered substances                                             |
| TCSI       | Taiwan Chemical Substance Inventory                                     |
| TSCA       | Toxic Substance Control Act                                             |

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

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### SECTION 16: Other information

#### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value)                                                                                                    | Actual entry (text/value)                                                                                          | Safety-relevant |
|---------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------|
| 2.3     | Results of PBT and vPvB assessment:<br>This mixture does not contain any substances that are assessed to be a PBT or a vPvB. | Results of PBT and vPvB assessment:<br>Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$ . | yes             |
| 15.1    |                                                                                                                              | Dangerous substances with restrictions (REACH, Annex XVII):<br>change in the listing (table)                       | yes             |

#### Abbreviations and acronyms

| Abbr.           | Descriptions of used abbreviations                                                                                                                                                |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute Tox.      | Acute toxicity                                                                                                                                                                    |
| ADR             | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)                     |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic hazard                                                                                                                             |
| ATE             | Acute Toxicity Estimate                                                                                                                                                           |
| BCF             | Bioconcentration factor                                                                                                                                                           |
| BOD             | Biochemical Oxygen Demand                                                                                                                                                         |
| CAS             | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)                                                                            |
| CLP             | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures                                                                                |
| COD             | Chemical oxygen demand                                                                                                                                                            |
| DGR             | Dangerous Goods Regulations (see IATA/DGR)                                                                                                                                        |
| DNEL            | Derived No-Effect Level                                                                                                                                                           |
| EC50            | Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval  |
| EC No           | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) |
| EINECS          | European Inventory of Existing Commercial Chemical Substances                                                                                                                     |
| ELINCS          | European List of Notified Chemical Substances                                                                                                                                     |
| ErC50           | $\equiv$ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control     |
| Eye Dam.        | Seriously damaging to the eye                                                                                                                                                     |
| Eye Irrit.      | Irritant to the eye                                                                                                                                                               |
| GHS             | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations                                                                         |
| IATA            | International Air Transport Association                                                                                                                                           |
| IATA/DGR        | Dangerous Goods Regulations (DGR) for the air transport (IATA)                                                                                                                    |
| ICAO            | International Civil Aviation Organization                                                                                                                                         |
| IMDG            | International Maritime Dangerous Goods Code                                                                                                                                       |



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| Abbr.       | Descriptions of used abbreviations                                                                                                                |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008                          |
| LC50        | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval |
| LD50        | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval                  |
| log KOW     | n-Octanol/water                                                                                                                                   |
| NLP         | No-Longer Polymer                                                                                                                                 |
| PBT         | Persistent, Bioaccumulative and Toxic                                                                                                             |
| PNEC        | Predicted No-Effect Concentration                                                                                                                 |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals                                                                              |
| Skin Corr.  | Corrosive to skin                                                                                                                                 |
| Skin Irrit. | Irritant to skin                                                                                                                                  |
| SVHC        | Substance of Very High Concern                                                                                                                    |
| VOC         | Volatile Organic Compounds                                                                                                                        |
| vPvB        | Very Persistent and very Bioaccumulative                                                                                                          |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties. The classification is based on tested mixture. Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in section 2 and 3)

| Code | Text                                               |
|------|----------------------------------------------------|
| H302 | Harmful if swallowed.                              |
| H315 | Causes skin irritation.                            |
| H318 | Causes serious eye damage.                         |
| H319 | Causes serious eye irritation.                     |
| H412 | Harmful to aquatic life with long lasting effects. |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

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## Binding Buffer BSM

article number:  
Version: **2.0 en**  
Replaces version of: 07.03.2023  
Version: (1)

date of compilation: 07.03.2023  
Revision: 29.03.2023

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

### 1.1 Product identifier

Identification of the substance **Binding Buffer BSM**  
Registration number (REACH) not relevant (mixture)

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

Relevant identified uses: Laboratory and analytical use  
Laboratory chemical  
Uses advised against: Do not use for private purposes (household).  
Food, drink and animal feedingstuffs.

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

Carl Roth GmbH + Co KG  
Schoemperlenstr. 3-5  
D-76185 Karlsruhe  
Germany

**Telephone:**+49 (0) 721 - 56 06 0  
**Telefax:** +49 (0) 721 - 56 06 149  
**e-mail:** sicherheit@carlroth.de  
**Website:** www.carlroth.de

Competent person responsible for the safety data sheet: :Department Health, Safety and Environment

**e-mail (competent person):** sicherheit@carlroth.de

### 1.4 Emergency telephone number

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class                                                                    | Cat-egory | Hazard class and category | Hazard statement |
|---------|---------------------------------------------------------------------------------|-----------|---------------------------|------------------|
| 2.6     | Flammable liquid                                                                | 2         | Flam. Liq. 2              | H225             |
| 3.3     | Serious eye damage/eye irritation                                               | 2         | Eye Irrit. 2              | H319             |
| 3.8D    | Specific target organ toxicity - single exposure (narcotic effects, drowsiness) | 3         | STOT SE 3                 | H336             |

For full text of abbreviations: see SECTION 16

#### The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

**Signal word** **Danger**

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### Pictograms

GHS02, GHS07



### Hazard statements

H225 Highly flammable liquid and vapour  
H319 Causes serious eye irritation  
H336 May cause drowsiness or dizziness

### Precautionary statements

#### Precautionary statements - prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P280 Wear protective gloves/eye protection

#### Precautionary statements - response

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

**Hazardous ingredients for labelling:** 2-Propanol

#### Labelling of packages where the contents do not exceed 125 ml

Signal word: **Danger**

Symbol(s)



contains: 2-Propanol

## 2.3 Other hazards

### Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0,1\%$ .

### Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

not relevant (mixture)

### 3.2 Mixtures

#### Description of the mixture



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| Name of substance | Identifier                                                                  | Wt%     | Classification acc. to GHS                                     | Pictograms                                                                                                                                                              | Notes  |
|-------------------|-----------------------------------------------------------------------------|---------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 2-Propanol        | CAS No<br>67-63-0<br><br>EC No<br>200-661-7<br><br>Index No<br>603-117-00-0 | 25 - 50 | Flam. Liq. 2 / H225<br>Eye Irrit. 2 / H319<br>STOT SE 3 / H336 |   | GHS-HC |

### Notes

GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/2008/EC, Annex VI)

For full text of abbreviations: see SECTION 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Take off contaminated clothing.

#### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

#### Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

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

Vomiting, Irritation, Dizziness, Drowsiness, Narcosis

### 4.3 Indication of any immediate medical attention and special treatment needed

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media



#### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings  
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

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### Unsuitable extinguishing media

water jet

### 5.2 Special hazards arising from the substance or mixture

Combustible. In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

### Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), May produce toxic fumes of carbon monoxide if burning.

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

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



#### For non-emergency personnel

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Avoidance of ignition sources.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Danger of explosion.

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

#### Advice on how to contain a spill

Covering of drains.

#### Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Provision of sufficient ventilation.

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### Measures to prevent fire as well as aerosol and dust generation



Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge. Due to danger of explosion, prevent leakage

of vapours into cellars, flues and ditches.

### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs. When using do not smoke.

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

Keep container tightly closed.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice:

Ground/bond container and receiving equipment.

#### Ventilation requirements

Use local and general ventilation.

#### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits)

This information is not available.

| Relevant DNELs of components of the mixture |         |           |                         |                                    |                   |                            |
|---------------------------------------------|---------|-----------|-------------------------|------------------------------------|-------------------|----------------------------|
| Name of substance                           | CAS No  | End-point | Threshold level         | Protection goal, route of exposure | Used in           | Exposure time              |
| 2-Propanol                                  | 67-63-0 | DNEL      | 500 mg/m <sup>3</sup>   | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| 2-Propanol                                  | 67-63-0 | DNEL      | 1.000 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | acute - systemic effects   |
| 2-Propanol                                  | 67-63-0 | DNEL      | 888 mg/kg bw/day        | human, dermal                      | worker (industry) | chronic - systemic effects |

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| Relevant PNECs of components of the mixture |         |           |                 |                       |                              |                              |
|---------------------------------------------|---------|-----------|-----------------|-----------------------|------------------------------|------------------------------|
| Name of substance                           | CAS No  | End-point | Threshold level | Organism              | Environmental compartment    | Exposure time                |
| 2-Propanol                                  | 67-63-0 | PNEC      | 140,9 mg/l      | aquatic organisms     | freshwater                   | short-term (single instance) |
| 2-Propanol                                  | 67-63-0 | PNEC      | 140,9 mg/l      | aquatic organisms     | marine water                 | short-term (single instance) |
| 2-Propanol                                  | 67-63-0 | PNEC      | 2.251 mg/l      | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| 2-Propanol                                  | 67-63-0 | PNEC      | 552 mg/kg       | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| 2-Propanol                                  | 67-63-0 | PNEC      | 552 mg/kg       | aquatic organisms     | marine sediment              | short-term (single instance) |
| 2-Propanol                                  | 67-63-0 | PNEC      | 28 mg/kg        | terrestrial organisms | soil                         | short-term (single instance) |

## 8.2 Exposure controls

### Individual protection measures (personal protective equipment)

#### Eye/face protection



Use safety goggles with side protection.

#### Skin protection



#### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. 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. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

#### • type of material

NBR (Nitrile rubber)

#### • material thickness

0,4 mm

#### • breakthrough times of the glove material

>480 minutes (permeation: level 6)

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### • other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Flame-retardant protective clothing.

### Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C, colour code: Brown).

### Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                          |                                                  |
|----------------------------------------------------------|--------------------------------------------------|
| Physical state                                           | liquid                                           |
| Colour                                                   | light yellow                                     |
| Odour                                                    | like: - alcohol                                  |
| Melting point/freezing point                             | not determined                                   |
| Boiling point or initial boiling point and boiling range | 82 °C at 1.013 hPa                               |
| Flammability                                             | flammable liquid in accordance with GHS criteria |
| Lower and upper explosion limit                          | not determined                                   |
| Flash point                                              | not determined                                   |
| Auto-ignition temperature                                | 425 °C                                           |
| Decomposition temperature                                | not relevant                                     |
| pH (value)                                               | 4 (20 °C)                                        |
| Kinematic viscosity                                      | not determined                                   |
| <u>Solubility(ies)</u>                                   |                                                  |
| Water solubility                                         | miscible in any proportion                       |
| <u>Partition coefficient</u>                             |                                                  |
| Partition coefficient n-octanol/water (log value):       | this information is not available                |
| Vapour pressure                                          | 43 hPa at 20 °C                                  |
| <u>Density and/or relative density</u>                   |                                                  |
| Density                                                  | ~0,88 g/cm <sup>3</sup> at 20 °C                 |
| Relative vapour density                                  | information on this property is not available    |



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Particle characteristics not relevant (liquid)

### Other safety parameters

Oxidising properties none

## 9.2 Other information

Information with regard to physical hazard classes: There is no additional information.

Other safety characteristics:

Miscibility completely miscible with water

Temperature class (EU, acc. to ATEX) T2  
Maximum permissible surface temperature on the equipment: 300°C

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The mixture contains reactive substance(s). Risk of ignition.

#### **If heated**

Risk of ignition.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

**Exothermic reaction with:** strong oxidiser, Iron, Nitric acid, Strong acid, Aldehydes, Aluminium, Amines,

**Danger of explosion:** Chlorates, Nitro compound, Hydrogen peroxide, Phosgene

### 10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### 10.5 Incompatible materials

plastic and rubber

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5. Peroxides.

## SECTION 11: Toxicological information

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

Test data are not available for the complete mixture.

#### **Classification procedure**

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### **Classification according to GHS (1272/2008/EC, CLP)**

#### **Acute toxicity**

Shall not be classified as acutely toxic.

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| Acute toxicity of components of the mixture |         |                    |          |              |         |
|---------------------------------------------|---------|--------------------|----------|--------------|---------|
| Name of substance                           | CAS No  | Exposure route     | Endpoint | Value        | Species |
| 2-Propanol                                  | 67-63-0 | inhalation: vapour | LC50     | 37,5 mg/l/4h | rat     |
| 2-Propanol                                  | 67-63-0 | oral               | LD50     | 5.045 mg/kg  | rat     |
| 2-Propanol                                  | 67-63-0 | dermal             | LD50     | 12.800 mg/kg | rabbit  |

### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

### Serious eye damage/eye irritation

Causes serious eye irritation.

### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

### Symptoms related to the physical, chemical and toxicological characteristics

#### • If swallowed

Data are not available.

#### • If in eyes

Causes serious eye irritation

#### • If inhaled

dizziness, fatigue, narcosis

#### • If on skin

repeated exposure may cause skin dryness or cracking

#### • Other information

Other adverse effects: Headache, Dyspnoea, Narcosis, Vertigo

## 11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

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### 11.3 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

| Aquatic toxicity (acute) of components of the mixture |         |          |             |         |               |
|-------------------------------------------------------|---------|----------|-------------|---------|---------------|
| Name of substance                                     | CAS No  | Endpoint | Value       | Species | Exposure time |
| 2-Propanol                                            | 67-63-0 | LC50     | 10.000 mg/l | fish    | 96 h          |

### 12.2 Persistence and degradability

| Degradability of components of the mixture |         |                  |                  |      |                                   |        |
|--------------------------------------------|---------|------------------|------------------|------|-----------------------------------|--------|
| Name of substance                          | CAS No  | Process          | Degradation rate | Time | Method                            | Source |
| 2-Propanol                                 | 67-63-0 | biotic/abiotic   | 95 %             | 21 d | modifizierter OECD Screening Test |        |
| 2-Propanol                                 | 67-63-0 | oxygen depletion | 53 %             | 5 d  |                                   | ECHA   |

### 12.3 Bioaccumulative potential

Data are not available.

| Bioaccumulative potential of components of the mixture |         |     |         |          |
|--------------------------------------------------------|---------|-----|---------|----------|
| Name of substance                                      | CAS No  | BCF | Log KOW | BOD5/COD |
| 2-Propanol                                             | 67-63-0 |     | 0,05    |          |

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0,1\%$ .

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

### 12.7 Other adverse effects

Data are not available.

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

##### Sewage disposal-relevant information

Do not empty into drains.

##### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

#### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

##### Properties of waste which render it hazardous

**HP 3** flammable

#### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

### SECTION 14: Transport information

#### 14.1 UN number or ID number

|           |         |
|-----------|---------|
| ADR       | UN 1219 |
| IMDG-Code | UN 1219 |
| ICAO-TI   | UN 1219 |

#### 14.2 UN proper shipping name

|           |             |
|-----------|-------------|
| ADR       | ISOPROPANOL |
| IMDG-Code | ISOPROPANOL |
| ICAO-TI   | Isopropanol |

#### 14.3 Transport hazard class(es)

|           |   |
|-----------|---|
| ADR       | 3 |
| IMDG-Code | 3 |
| ICAO-TI   | 3 |

#### 14.4 Packing group

|           |    |
|-----------|----|
| ADR       | II |
| IMDG-Code | II |
| ICAO-TI   | II |

#### 14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

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### 14.6 Special precautions for user


Provisions for dangerous goods (ADR) should be complied within the premises.

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

The cargo is not intended to be carried in bulk.

### 14.8 Information for each of the UN Model Regulations

#### Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) Additional information

|                                                                                   |                                   |
|-----------------------------------------------------------------------------------|-----------------------------------|
| Proper shipping name                                                              | ISOPROPANOL                       |
| Particulars in the transport document                                             | UN1219, ISOPROPANOL, 3, II, (D/E) |
| Classification code                                                               | F1                                |
| Danger label(s)                                                                   | 3                                 |
|  |                                   |
| Special provisions (SP)                                                           | 601                               |
| Excepted quantities (EQ)                                                          | E2                                |
| Limited quantities (LQ)                                                           | 1 L                               |
| Transport category (TC)                                                           | 2                                 |
| Tunnel restriction code (TRC)                                                     | D/E                               |
| Hazard identification No                                                          | 33                                |

#### International Maritime Dangerous Goods Code (IMDG) - Additional information

|                                          |                                        |
|------------------------------------------|----------------------------------------|
| Proper shipping name                     | ISOPROPANOL                            |
| Particulars in the shipper's declaration | UN1219, ISOPROPANOL, 3, II, <23°C c.c. |
| Marine pollutant                         | -                                      |
| Danger label(s)                          | 3                                      |



|                          |          |
|--------------------------|----------|
| Special provisions (SP)  | -        |
| Excepted quantities (EQ) | E2       |
| Limited quantities (LQ)  | 1 L      |
| EmS                      | F-E, S-D |
| Stowage category         | B        |

#### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

|                                          |                            |
|------------------------------------------|----------------------------|
| Proper shipping name                     | Isopropanol                |
| Particulars in the shipper's declaration | UN1219, Isopropanol, 3, II |
| Danger label(s)                          | 3                          |



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article number:

|                          |      |
|--------------------------|------|
| Special provisions (SP)  | A180 |
| Excepted quantities (EQ) | E2   |
| Limited quantities (LQ)  | 1 L  |

## SECTION 15: Regulatory information

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

#### Relevant provisions of the European Union (EU)

#### Restrictions according to REACH, Annex XVII

| Dangerous substances with restrictions (REACH, Annex XVII) |                                                                                                  |        |             |    |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------|-------------|----|
| Name of substance                                          | Name acc. to inventory                                                                           | CAS No | Restriction | No |
| Binding Buffer BSM                                         | this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC |        | R3          | 3  |
| 2-Propanol                                                 | flammable / pyrophoric                                                                           |        | R40         | 40 |
| 2-Propanol                                                 | substances in tattoo inks and permanent make-up                                                  |        | R75         | 75 |

#### Legend

- R3
1. Shall not be used in:
    - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
    - tricks and jokes,
    - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
  2. Articles not complying with paragraph 1 shall not be placed on the market.
  3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
    - can be used as fuel in decorative oil lamps for supply to the general public, and
    - present an aspiration hazard and are labelled with H304.
  4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
  5. Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
    - (a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil – or even sucking the wick of lamps – may lead to life-threatening lung damage";
    - (b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter fluid may lead to life threatening lung damage";
    - (c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.;
- R40
1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:
    - metallic glitter intended mainly for decoration,
    - artificial snow and frost,
    - 'whoopie' cushions,
    - silly string aerosols,
    - imitation excrement,
    - horns for parties,
    - decorative flakes and foams,
    - artificial cobwebs,
    - stink bombs.
  2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:  
'For professional users only'.
  3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/324/EEC (2).
  4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

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### Legend

- R75
1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such substances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question is or are present in the following circumstances:
    - (a) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
    - (b) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as reproductive toxicant category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
    - (c) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin sensitiser category 1, 1A or 1B, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
    - (d) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2, or as serious eye damage category 1 or eye irritant category 2, the substance is present in the mixture in a concentration equal to or greater than:
      - (i) 0,1 % by weight, if the substance is used solely as a pH regulator;
      - (ii) 0,01 % by weight, in all other cases;
    - (e) in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (\*1), the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
    - (f) in the case of a substance for which a condition of one or more of the following kinds is specified in column g (Product type, Body parts) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight:
      - (i) "Rinse-off products";
      - (ii) "Not to be used in products applied on mucous membranes";
      - (iii) "Not to be used in eye products";
    - (g) in the case of a substance for which a condition is specified in column h (Maximum concentration in ready for use preparation) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration, or in some other way, that does not accord with the condition specified in that column;
    - (h) in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a concentration equal to or greater than the concentration limit specified for that substance in that Appendix.
  2. For the purposes of this entry use of a mixture "for tattooing purposes" means injection or introduction of the mixture into a person's skin, mucous membrane or eyeball, by any process or procedure (including procedures commonly referred to as permanent make-up, cosmetic tattooing, micro-blading and micro-pigmentation), with the aim of making a mark or design on his or her body.
  3. If a substance not listed in Appendix 13 falls within more than one of points (a) to (g) of paragraph 1, the strictest concentration limit laid down in the points in question shall apply to that substance. If a substance listed in Appendix 13 also falls within one or more of points (a) to (g) of paragraph 1, the concentration limit laid down in point (h) of paragraph 1 shall apply to that substance.
  4. By way of derogation, paragraph 1 shall not apply to the following substances until 4 January 2023:
    - (a) Pigment Blue 15:3 (CI 74160, EC No 205-685-1, CAS No 147-14-8);
    - (b) Pigment Green 7 (CI 74260, EC No 215-524-7, CAS No 1328-53-6).
  5. If Part 3 of Annex VI to Regulation (EC) No 1272/2008 is amended after 4 January 2021 to classify or re-classify a substance such that the substance then becomes caught by point (a), (b), (c) or (d) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the date of application of that new or revised classification is after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect on the date of application of that new or revised classification.
  6. If Annex II or Annex IV to Regulation (EC) No 1223/2009 is amended after 4 January 2021 to list or change the listing of a substance such that the substance then becomes caught by point (e), (f) or (g) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the amendment takes effect after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect from the date falling 18 months after entry into force of the act by which that amendment was made.
  7. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022, the mixture is marked with the following information:
    - (a) the statement "Mixture for use in tattoos or permanent make-up";
    - (b) a reference number to uniquely identify the batch;
    - (c) the list of ingredients in accordance with the nomenclature established in the glossary of common ingredient names pursuant to Article 33 of Regulation (EC) No 1223/2009, or in the absence of a common ingredient name, the IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients shall be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Impurities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the meaning of this entry, is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008, that ingredient does not need to be marked in accordance with this Regulation;
    - (d) the additional statement "pH regulator" for substances falling under point (d)(i) of paragraph 1;
    - (e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentration limit specified in Appendix 13;
    - (f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration limit specified in Appendix 13;
    - (g) safety instructions for use insofar as they are not already required to be stated on the label by Regulation (EC) No 1272/2008.The information shall be clearly visible, easily legible and marked in a way that is indelible. The information shall be written in the official language(s) of the Member State(s) where the mixture is placed on the market, unless the Member State(s) concerned provide(s) otherwise. Where necessary because of the size of the package, the information listed in the first subparagraph, except for point (a), shall be included instead in the instructions for use. Before using a mixture for tattooing purposes, the person using the mixture shall provide the person undergoing the procedure with the information marked on the package or included in the instructions for use pursuant to this paragraph.
  8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.

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### Legend

9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).

10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

### List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

None of the ingredients are listed.

### Seveso Directive

| 2012/18/EU (Seveso III) |                                       |                                                                                       |       |
|-------------------------|---------------------------------------|---------------------------------------------------------------------------------------|-------|
| No                      | Dangerous substance/hazard categories | Qualifying quantity (tonnes) for the application of lower and upper-tier requirements | Notes |
| P5c                     | flammable liquids (cat. 2, 3)         | 5.000 50.000                                                                          | 51)   |

#### Notation

51) Flammable liquids, categories 2 or 3 not covered by P5a and P5b

### Deco-Paint Directive

|                                            |           |
|--------------------------------------------|-----------|
| VOC content                                | 50 %      |
| VOC content (Water content was discounted) | 787,2 g/l |

### Industrial Emissions Directive (IED)

|                                            |           |
|--------------------------------------------|-----------|
| VOC content                                | 50 %      |
| VOC content (Water content was discounted) | 787,2 g/l |

### Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

### Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

### Water Framework Directive (WFD)

| List of pollutants (WFD) |                                                                                                                                                                                                                                                                                   |        |           |         |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------|---------|
| Name of substance        | Name acc. to inventory                                                                                                                                                                                                                                                            | CAS No | Listed in | Remarks |
| 2-Propanol               | Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment |        | a)        |         |

#### Legend

A) Indicative list of the main pollutants



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### Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

### Regulation on drug precursors

none of the ingredients are listed

### Regulation on substances that deplete the ozone layer (ODS)

none of the ingredients are listed

### Regulation concerning the export and import of hazardous chemicals (PIC)

none of the ingredients are listed

### Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

### Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

### National inventories

| Country | Inventory  | Status                                 |
|---------|------------|----------------------------------------|
| AU      | AIIC       | all ingredients are listed             |
| CA      | DSL        | all ingredients are listed             |
| CN      | IECSC      | all ingredients are listed             |
| EU      | ECSI       | all ingredients are listed             |
| EU      | REACH Reg. | all ingredients are listed             |
| JP      | CSCL-ENCS  | all ingredients are listed             |
| JP      | ISHA-ENCS  | not all ingredients are listed         |
| KR      | KECI       | all ingredients are listed             |
| MX      | INSQ       | all ingredients are listed             |
| NZ      | NZIoC      | all ingredients are listed             |
| PH      | PICCS      | all ingredients are listed             |
| TR      | CICR       | not all ingredients are listed         |
| TW      | TCSI       | all ingredients are listed             |
| US      | TSCA       | all ingredients are listed as "ACTIVE" |

#### Legend

|            |                                                                         |
|------------|-------------------------------------------------------------------------|
| AIIC       | Australian Inventory of Industrial Chemicals                            |
| CICR       | Chemical Inventory and Control Regulation                               |
| CSCL-ENCS  | List of Existing and New Chemical Substances (CSCL-ENCS)                |
| DSL        | Domestic Substances List (DSL)                                          |
| ECSI       | EC Substance Inventory (EINECS, ELINCS, NLP)                            |
| IECSC      | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ       | National Inventory of Chemical Substances                               |
| ISHA-ENCS  | Inventory of Existing and New Chemical Substances (ISHA-ENCS)           |
| KECI       | Korea Existing Chemicals Inventory                                      |
| NZIoC      | New Zealand Inventory of Chemicals                                      |
| PICCS      | Philippine Inventory of Chemicals and Chemical Substances (PICCS)       |
| REACH Reg. | REACH registered substances                                             |
| TCSI       | Taiwan Chemical Substance Inventory                                     |
| TSCA       | Toxic Substance Control Act                                             |

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### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value)                                                                                                    | Actual entry (text/value)                                                                                          | Safety-relevant |
|---------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------|
| 2.3     | Results of PBT and vPvB assessment:<br>This mixture does not contain any substances that are assessed to be a PBT or a vPvB. | Results of PBT and vPvB assessment:<br>Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$ . | yes             |
| 15.1    |                                                                                                                              | Dangerous substances with restrictions (REACH, Annex XVII):<br>change in the listing (table)                       | yes             |

### Abbreviations and acronyms

| Abbr.      | Descriptions of used abbreviations                                                                                                                                                |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ADR        | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)                     |
| BCF        | Bioconcentration factor                                                                                                                                                           |
| BOD        | Biochemical Oxygen Demand                                                                                                                                                         |
| CAS        | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)                                                                            |
| CLP        | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures                                                                                |
| COD        | Chemical oxygen demand                                                                                                                                                            |
| DGR        | Dangerous Goods Regulations (see IATA/DGR)                                                                                                                                        |
| DNEL       | Derived No-Effect Level                                                                                                                                                           |
| EC No      | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) |
| EINECS     | European Inventory of Existing Commercial Chemical Substances                                                                                                                     |
| ELINCS     | European List of Notified Chemical Substances                                                                                                                                     |
| EmS        | Emergency Schedule                                                                                                                                                                |
| Eye Dam.   | Seriously damaging to the eye                                                                                                                                                     |
| Eye Irrit. | Irritant to the eye                                                                                                                                                               |
| Flam. Liq. | Flammable liquid                                                                                                                                                                  |
| GHS        | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations                                                                         |
| IATA       | International Air Transport Association                                                                                                                                           |
| IATA/DGR   | Dangerous Goods Regulations (DGR) for the air transport (IATA)                                                                                                                    |
| ICAO       | International Civil Aviation Organization                                                                                                                                         |
| ICAO-TI    | Technical instructions for the safe transport of dangerous goods by air                                                                                                           |
| IMDG       | International Maritime Dangerous Goods Code                                                                                                                                       |
| IMDG-Code  | International Maritime Dangerous Goods Code                                                                                                                                       |

# Safety data sheet

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## Binding Buffer BSM

article number:

| Abbr.    | Descriptions of used abbreviations                                                                                                                |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| index No | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008                          |
| LC50     | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval |
| LD50     | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval                  |
| log KOW  | n-Octanol/water                                                                                                                                   |
| NLP      | No-Longer Polymer                                                                                                                                 |
| PBT      | Persistent, Bioaccumulative and Toxic                                                                                                             |
| PNEC     | Predicted No-Effect Concentration                                                                                                                 |
| REACH    | Registration, Evaluation, Authorisation and Restriction of Chemicals                                                                              |
| STOT SE  | Specific target organ toxicity - single exposure                                                                                                  |
| SVHC     | Substance of Very High Concern                                                                                                                    |
| VOC      | Volatile Organic Compounds                                                                                                                        |
| vPvB     | Very Persistent and very Bioaccumulative                                                                                                          |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties. The classification is based on tested mixture. Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in section 2 and 3)

| Code | Text                                |
|------|-------------------------------------|
| H225 | Highly flammable liquid and vapour. |
| H319 | Causes serious eye irritation.      |
| H336 | May cause drowsiness or dizziness.  |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

# Safety data sheet

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## Washing Buffer WSA

article number:  
Version: **5.0 en**  
Replaces version of: 27.01.2023  
Version: (4)

date of compilation: 29.10.2015  
Revision: 29.03.2023

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

### 1.1 Product identifier

Identification of the substance **Washing Buffer WSA**

Article number

Registration number (REACH) not relevant (mixture)

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

Relevant identified uses: Laboratory chemical  
Laboratory and analytical use

Uses advised against: Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin. Do not use for private purposes (household). Food, drink and animal feedingstuffs.

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

Carl Roth GmbH + Co KG  
Schoemperlenstr. 3-5  
D-76185 Karlsruhe  
Germany

**Telephone:**+49 (0) 721 - 56 06 0

**Telefax:** +49 (0) 721 - 56 06 149

**e-mail:** sicherheit@carlroth.de

**Website:** www.carlroth.de

Competent person responsible for the safety data sheet: :Department Health, Safety and Environment

**e-mail (competent person):** sicherheit@carlroth.de

### 1.4 Emergency telephone number

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class                                          | Cat-egory | Hazard class and category | Hazard statement |
|---------|-------------------------------------------------------|-----------|---------------------------|------------------|
| 3.1O    | Acute toxicity (oral)                                 | 4         | Acute Tox. 4              | H302             |
| 3.1D    | Acute toxicity (dermal)                               | 4         | Acute Tox. 4              | H312             |
| 3.1I    | Acute toxicity (inhal.)                               | 4         | Acute Tox. 4              | H332             |
| 3.2     | Skin corrosion/irritation                             | 1B        | Skin Corr. 1B             | H314             |
| 3.3     | Serious eye damage/eye irritation                     | 1         | Eye Dam. 1                | H318             |
| 4.1C    | Hazardous to the aquatic environment - chronic hazard | 3         | Aquatic Chronic 3         | H412             |

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### Supplemental hazard information

| Code   | Supplemental hazard information             |
|--------|---------------------------------------------|
| EUH032 | contact with acids liberates very toxic gas |

For full text of abbreviations: see SECTION 16

### The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis. Spillage and fire water can cause pollution of watercourses.

## 2.2 Label elements

### Labelling according to Regulation (EC) No 1272/2008 (CLP)

#### Signal word

**Danger**

#### Pictograms

GHS05, GHS07



#### Hazard statements

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled  
H314 Causes severe skin burns and eye damage  
H412 Harmful to aquatic life with long lasting effects

#### Precautionary statements

##### Precautionary statements - prevention

P280 Wear protective gloves/eye protection

##### Precautionary statements - response

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell  
P302+P352 IF ON SKIN: Wash with plenty of water  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

### Supplemental hazard information

EUH032 Contact with acids liberates very toxic gas.

### Hazardous ingredients for labelling:

Guanidine thiocyanate

### Labelling of packages where the contents do not exceed 125 ml

Signal word: **Danger**

Symbol(s)



H314 Causes severe skin burns and eye damage.  
H412 Harmful to aquatic life with long lasting effects.

P280 Wear protective gloves/eye protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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## Washing Buffer WSA

article number:

EUH032 Contact with acids liberates very toxic gas.  
contains: Guanidine thiocyanate

### 2.3 Other hazards

#### Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0,1\%$ .

#### Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

not relevant (mixture)

### 3.2 Mixtures

#### Description of the mixture

| Name of substance     | Identifier                                                                   | Wt%     | Classification acc. to GHS                                                                                                                           | Pictograms | Notes          |
|-----------------------|------------------------------------------------------------------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|
| Guanidine thiocyanate | CAS No<br>593-84-0<br><br>EC No<br>209-812-1<br><br>Index No<br>615-004-00-3 | 25 - 50 | Acute Tox. 4 / H302<br>Acute Tox. 4 / H312<br>Acute Tox. 4 / H332<br>Skin Corr. 1B / H314<br>Eye Dam. 1 / H318<br>Aquatic Chronic 3 / H412<br>EUH032 |            | A(a)<br>GHS-HC |

#### Notes

A(a): The name of substance is a general description. It is required that the correct name is stated on the label  
GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/2008/EC, Annex VI)

| Name of substance     | Identifier                                                                   | Specific Conc. Limits | M-Factors | ATE                                     | Exposure route                              |
|-----------------------|------------------------------------------------------------------------------|-----------------------|-----------|-----------------------------------------|---------------------------------------------|
| Guanidine thiocyanate | CAS No<br>593-84-0<br><br>EC No<br>209-812-1<br><br>Index No<br>615-004-00-3 | -                     | -         | 593 mg/kg<br>1.100 mg/kg<br>1,5 mg/l/4h | oral<br>dermal<br>inhalation: dust/<br>mist |

For full text of abbreviations: see SECTION 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Take off immediately all contaminated clothing. Self-protection of the first aider.

#### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

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### Following skin contact

Rinse skin with water/shower. In case of skin irritation, consult a physician.

### Following eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye.

### Following ingestion

Rinse mouth with water (only if the person is conscious). Call a doctor.

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

Corrosion, Vomiting, Risk of blindness, Gastric perforation, Risk of serious damage to eyes

## 4.3 Indication of any immediate medical attention and special treatment needed

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media



#### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings  
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

water jet

### 5.2 Special hazards arising from the substance or mixture

Ingredients of the mixture combustible. The product itself does not burn.

#### Hazardous combustion products

In case of fire may be liberated: Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Sulphur oxides (SO<sub>x</sub>), Hydrogen cyanide (HCN, prussic acid)

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear full chemical protective clothing.

## SECTION 6: Accidental release measures

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



#### For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

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

#### Advice on how to contain a spill

Covering of drains.

#### Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handle and open container with care. Clear contaminated areas thoroughly.

#### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

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

Keep container tightly closed.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice:

#### Ventilation requirements

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted.

#### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits)

This information is not available.

| Relevant DNELs of components of the mixture |          |           |                         |                                    |                   |                            |
|---------------------------------------------|----------|-----------|-------------------------|------------------------------------|-------------------|----------------------------|
| Name of substance                           | CAS No   | End-point | Threshold level         | Protection goal, route of exposure | Used in           | Exposure time              |
| Guanidine thiocyanate                       | 593-84-0 | DNEL      | 1,092 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| Guanidine thiocyanate                       | 593-84-0 | DNEL      | 3,28 mg/m <sup>3</sup>  | human, inhalatory                  | worker (industry) | acute - systemic effects   |



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article number:

| Relevant DNELs of components of the mixture |          |           |                   |                                    |                   |                            |
|---------------------------------------------|----------|-----------|-------------------|------------------------------------|-------------------|----------------------------|
| Name of substance                           | CAS No   | End-point | Threshold level   | Protection goal, route of exposure | Used in           | Exposure time              |
| Guanidine thiocyanate                       | 593-84-0 | DNEL      | 0,31 mg/kg bw/day | human, dermal                      | worker (industry) | chronic - systemic effects |

| Relevant PNECs of components of the mixture |          |           |                 |                       |                              |                              |
|---------------------------------------------|----------|-----------|-----------------|-----------------------|------------------------------|------------------------------|
| Name of substance                           | CAS No   | End-point | Threshold level | Organism              | Environmental compartment    | Exposure time                |
| Guanidine thiocyanate                       | 593-84-0 | PNEC      | 42,4 µg/l       | aquatic organisms     | freshwater                   | short-term (single instance) |
| Guanidine thiocyanate                       | 593-84-0 | PNEC      | 4,24 µg/l       | aquatic organisms     | marine water                 | short-term (single instance) |
| Guanidine thiocyanate                       | 593-84-0 | PNEC      | 20 mg/l         | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| Guanidine thiocyanate                       | 593-84-0 | PNEC      | 165 µg/kg       | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| Guanidine thiocyanate                       | 593-84-0 | PNEC      | 16,5 µg/kg      | aquatic organisms     | marine sediment              | short-term (single instance) |
| Guanidine thiocyanate                       | 593-84-0 | PNEC      | 8,03 µg/kg      | terrestrial organisms | soil                         | short-term (single instance) |

## 8.2 Exposure controls

### Individual protection measures (personal protective equipment)

#### Eye/face protection



Use safety goggle with side protection. Wear face protection.

#### Skin protection



#### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. 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. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

#### • type of material

NBR (Nitrile rubber)

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- **material thickness**

>0,11 mm

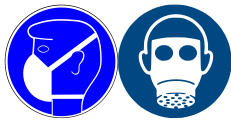
- **breakthrough times of the glove material**

>480 minutes (permeation: level 6)

- **other protection measures**

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

### Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).

### Environmental exposure controls

Keep away from drains, surface and ground water.

## 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                             | not determined                    |
| Boiling point or initial boiling point and boiling range | 100 °C                            |
| Flammability                                             | non-combustible                   |
| Lower and upper explosion limit                          | not determined                    |
| Flash point                                              | not determined                    |
| Auto-ignition temperature                                | not determined                    |
| Decomposition temperature                                | not relevant                      |
| pH (value)                                               | not determined                    |
| Kinematic viscosity                                      | not determined                    |
| <u>Solubility(ies)</u>                                   |                                   |
| Water solubility                                         | miscible in any proportion        |
| <u>Partition coefficient</u>                             |                                   |
| Partition coefficient n-octanol/water (log value):       | this information is not available |
| Vapour pressure                                          | 23 hPa at 20 °C                   |

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## Washing Buffer WSA

article number:

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### Density and/or relative density

|                         |                                               |
|-------------------------|-----------------------------------------------|
| Density                 | 1,127 g/cm <sup>3</sup> at 20 °C              |
| Relative vapour density | information on this property is not available |

Particle characteristics not relevant (liquid)

### Other safety parameters

Oxidising properties none

## 9.2 Other information

Information with regard to physical hazard classes: hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics:

Miscibility completely miscible with water

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

**Dangerous/dangerous reactions with:** Acids

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

There is no additional information.

**Release of toxic materials with**

Acids.

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

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

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

**Classification according to GHS (1272/2008/EC, CLP)**

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## Washing Buffer WSA

article number:

### Acute toxicity

Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.

#### Acute toxicity estimate (ATE) of components of the mixture

| Name of substance     | CAS No   | Exposure route        | ATE         |
|-----------------------|----------|-----------------------|-------------|
| Guanidine thiocyanate | 593-84-0 | oral                  | 593 mg/kg   |
| Guanidine thiocyanate | 593-84-0 | dermal                | 1.100 mg/kg |
| Guanidine thiocyanate | 593-84-0 | inhalation: dust/mist | 1,5 mg/l/4h |

#### Acute toxicity of components of the mixture

| Name of substance     | CAS No   | Exposure route | Endpoint | Value     | Species |
|-----------------------|----------|----------------|----------|-----------|---------|
| Guanidine thiocyanate | 593-84-0 | oral           | LD50     | 593 mg/kg | rat     |

### Skin corrosion/irritation

Causes severe skin burns and eye damage.

### Serious eye damage/eye irritation

Causes serious eye damage.

### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

### Symptoms related to the physical, chemical and toxicological characteristics

#### • If swallowed

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects)

#### • If in eyes

causes burns, Causes serious eye damage, risk of blindness

#### • If inhaled

Data are not available.

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article number:

- **If on skin**

causes severe burns, causes poorly healing wounds

- **Other information**

none

### 11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

### 11.3 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Harmful to aquatic life with long lasting effects.

| Aquatic toxicity (acute) of components of the mixture |          |          |           |                       |               |
|-------------------------------------------------------|----------|----------|-----------|-----------------------|---------------|
| Name of substance                                     | CAS No   | Endpoint | Value     | Species               | Exposure time |
| Guanidine thiocyanate                                 | 593-84-0 | LC50     | 89,1 mg/l | fish                  | 96 h          |
| Guanidine thiocyanate                                 | 593-84-0 | EC50     | 42,4 mg/l | aquatic invertebrates | 48 h          |
| Guanidine thiocyanate                                 | 593-84-0 | ErC50    | 130 mg/l  | algae                 | 72 h          |

| Aquatic toxicity (chronic) of components of the mixture |          |          |           |                |               |
|---------------------------------------------------------|----------|----------|-----------|----------------|---------------|
| Name of substance                                       | CAS No   | Endpoint | Value     | Species        | Exposure time |
| Guanidine thiocyanate                                   | 593-84-0 | EC50     | >185 mg/l | microorganisms | 28 d          |

### 12.2 Persistence and degradability

| Degradability of components of the mixture |          |                           |                  |      |        |        |
|--------------------------------------------|----------|---------------------------|------------------|------|--------|--------|
| Name of substance                          | CAS No   | Process                   | Degradation rate | Time | Method | Source |
| Guanidine thiocyanate                      | 593-84-0 | DOC removal               | 46 %             | 28 d |        | ECHA   |
| Guanidine thiocyanate                      | 593-84-0 | carbon dioxide generation | 32 %             | 28 d |        | ECHA   |

### 12.3 Bioaccumulative potential

Data are not available.

| Bioaccumulative potential of components of the mixture |          |     |                                     |          |
|--------------------------------------------------------|----------|-----|-------------------------------------|----------|
| Name of substance                                      | CAS No   | BCF | Log KOW                             | BOD5/COD |
| Guanidine thiocyanate                                  | 593-84-0 |     | -1,5 (pH value: $\geq 6,2$ , 20 °C) |          |

### 12.4 Mobility in soil

Data are not available.

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article number:

### 12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0,1\%$ .

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

#### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

#### Properties of waste which render it hazardous

- HP 4** irritant - skin irritation and eye damage
- HP 6** acute toxicity
- HP 8** corrosive
- HP 12** release of an acute toxic gas
- HP 14** ecotoxic

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

## SECTION 14: Transport information

### 14.1 UN number or ID number

|           |         |
|-----------|---------|
| ADR       | UN 1760 |
| IMDG-Code | UN 1760 |
| ICAO-TI   | UN 1760 |

### 14.2 UN proper shipping name

|                                        |                          |
|----------------------------------------|--------------------------|
| ADR                                    | CORROSIVE LIQUID, N.O.S. |
| IMDG-Code                              | CORROSIVE LIQUID, N.O.S. |
| ICAO-TI                                | Corrosive liquid, n.o.s. |
| Technical name (hazardous ingredients) | Guanidine thiocyanate    |

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article number:

### 14.3 Transport hazard class(es)

|           |   |
|-----------|---|
| ADR       | 8 |
| IMDG-Code | 8 |
| ICAO-TI   | 8 |

### 14.4 Packing group

|           |    |
|-----------|----|
| ADR       | II |
| IMDG-Code | II |
| ICAO-TI   | II |

### 14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

### 14.6 Special precautions for user


Provisions for dangerous goods (ADR) should be complied within the premises.

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

The cargo is not intended to be carried in bulk.

### 14.8 Information for each of the UN Model Regulations

#### Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) Additional information

|                                                                                     |                                                                                 |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Proper shipping name                                                                | CORROSIVE LIQUID, N.O.S.                                                        |
| Particulars in the transport document                                               | UN1760, CORROSIVE LIQUID, N.O.S., (contains: Guanidine thiocyanate), 8, II, (E) |
| Classification code                                                                 | C9                                                                              |
| Danger label(s)                                                                     | 8                                                                               |
|  |                                                                                 |
| Special provisions (SP)                                                             | 274                                                                             |
| Excepted quantities (EQ)                                                            | E2                                                                              |
| Limited quantities (LQ)                                                             | 1 L                                                                             |
| Transport category (TC)                                                             | 2                                                                               |
| Tunnel restriction code (TRC)                                                       | E                                                                               |
| Hazard identification No                                                            | 80                                                                              |

#### International Maritime Dangerous Goods Code (IMDG) - Additional information

|                                          |                                                                            |
|------------------------------------------|----------------------------------------------------------------------------|
| Proper shipping name                     | CORROSIVE LIQUID, N.O.S.                                                   |
| Particulars in the shipper's declaration | UN1760, CORROSIVE LIQUID, N.O.S., (contains: Guanidine thiocyanate), 8, II |
| Marine pollutant                         | -                                                                          |
| Danger label(s)                          | 8                                                                          |



# Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



## Washing Buffer WSA

article number:

|                          |          |
|--------------------------|----------|
| Special provisions (SP)  | 274      |
| Excepted quantities (EQ) | E2       |
| Limited quantities (LQ)  | 1 L      |
| EmS                      | F-A, S-B |
| Stowage category         | B        |

### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

|                                          |                                                                            |
|------------------------------------------|----------------------------------------------------------------------------|
| Proper shipping name                     | Corrosive liquid, n.o.s.                                                   |
| Particulars in the shipper's declaration | UN1760, Corrosive liquid, n.o.s., (contains: Guanidine thiocyanate), 8, II |
| Danger label(s)                          | 8                                                                          |



|                          |       |
|--------------------------|-------|
| Special provisions (SP)  | A3    |
| Excepted quantities (EQ) | E2    |
| Limited quantities (LQ)  | 0,5 L |

## SECTION 15: Regulatory information

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

#### Relevant provisions of the European Union (EU)

#### Restrictions according to REACH, Annex XVII

| Dangerous substances with restrictions (REACH, Annex XVII) |                                                                                                  |        |             |    |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------|-------------|----|
| Name of substance                                          | Name acc. to inventory                                                                           | CAS No | Restriction | No |
| Washing Buffer WSA                                         | this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC |        | R3          | 3  |
| Guanidine thiocyanate                                      | substances in tattoo inks and permanent make-up                                                  |        | R75         | 75 |

#### Legend

- R3
- Shall not be used in:
    - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
    - tricks and jokes,
    - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
  - Articles not complying with paragraph 1 shall not be placed on the market.
  - Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
    - can be used as fuel in decorative oil lamps for supply to the general public, and
    - present an aspiration hazard and are labelled with H304.
  - Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
  - Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
    - lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil – or even sucking the wick of lamps – may lead to life-threatening lung damage";
    - grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter fluid may lead to life threatening lung damage";
    - lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.;



## Washing Buffer WSA

article number:

### Legend

- R75
1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such substances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question is or are present in the following circumstances:
    - (a) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
    - (b) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as reproductive toxicant category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
    - (c) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin sensitiser category 1, 1A or 1B, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
    - (d) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2, or as serious eye damage category 1 or eye irritant category 2, the substance is present in the mixture in a concentration equal to or greater than:
      - (i) 0,1 % by weight, if the substance is used solely as a pH regulator;
      - (ii) 0,01 % by weight, in all other cases;
    - (e) in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (\*1), the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
    - (f) in the case of a substance for which a condition of one or more of the following kinds is specified in column g (Product type, Body parts) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight:
      - (i) "Rinse-off products";
      - (ii) "Not to be used in products applied on mucous membranes";
      - (iii) "Not to be used in eye products";
    - (g) in the case of a substance for which a condition is specified in column h (Maximum concentration in ready for use preparation) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration, or in some other way, that does not accord with the condition specified in that column;
    - (h) in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a concentration equal to or greater than the concentration limit specified for that substance in that Appendix.
  2. For the purposes of this entry use of a mixture "for tattooing purposes" means injection or introduction of the mixture into a person's skin, mucous membrane or eyeball, by any process or procedure (including procedures commonly referred to as permanent make-up, cosmetic tattooing, micro-blading and micro-pigmentation), with the aim of making a mark or design on his or her body.
  3. If a substance not listed in Appendix 13 falls within more than one of points (a) to (g) of paragraph 1, the strictest concentration limit laid down in the points in question shall apply to that substance. If a substance listed in Appendix 13 also falls within one or more of points (a) to (g) of paragraph 1, the concentration limit laid down in point (h) of paragraph 1 shall apply to that substance.
  4. By way of derogation, paragraph 1 shall not apply to the following substances until 4 January 2023:
    - (a) Pigment Blue 15:3 (CI 74160, EC No 205-685-1, CAS No 147-14-8);
    - (b) Pigment Green 7 (CI 74260, EC No 215-524-7, CAS No 1328-53-6).
  5. If Part 3 of Annex VI to Regulation (EC) No 1272/2008 is amended after 4 January 2021 to classify or re-classify a substance such that the substance then becomes caught by point (a), (b), (c) or (d) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the date of application of that new or revised classification is after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect on the date of application of that new or revised classification.
  6. If Annex II or Annex IV to Regulation (EC) No 1223/2009 is amended after 4 January 2021 to list or change the listing of a substance such that the substance then becomes caught by point (e), (f) or (g) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the amendment takes effect after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect from the date falling 18 months after entry into force of the act by which that amendment was made.
  7. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022, the mixture is marked with the following information:
    - (a) the statement "Mixture for use in tattoos or permanent make-up";
    - (b) a reference number to uniquely identify the batch;
    - (c) the list of ingredients in accordance with the nomenclature established in the glossary of common ingredient names pursuant to Article 33 of Regulation (EC) No 1223/2009, or in the absence of a common ingredient name, the IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients shall be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Impurities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the meaning of this entry, is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008, that ingredient does not need to be marked in accordance with this Regulation;
    - (d) the additional statement "pH regulator" for substances falling under point (d)(i) of paragraph 1;
    - (e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentration limit specified in Appendix 13;
    - (f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration limit specified in Appendix 13;
    - (g) safety instructions for use insofar as they are not already required to be stated on the label by Regulation (EC) No 1272/2008.The information shall be clearly visible, easily legible and marked in a way that is indelible. The information shall be written in the official language(s) of the Member State(s) where the mixture is placed on the market, unless the Member State(s) concerned provide(s) otherwise. Where necessary because of the size of the package, the information listed in the first subparagraph, except for point (a), shall be included instead in the instructions for use. Before using a mixture for tattooing purposes, the person using the mixture shall provide the person undergoing the procedure with the information marked on the package or included in the instructions for use pursuant to this paragraph.
  8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.

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## Washing Buffer WSA

article number:

### Legend

9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).

10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

### List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

None of the ingredients are listed.

### Seveso Directive

| 2012/18/EU (Seveso III) |                                       |                                                                                       |       |
|-------------------------|---------------------------------------|---------------------------------------------------------------------------------------|-------|
| No                      | Dangerous substance/hazard categories | Qualifying quantity (tonnes) for the application of lower and upper-tier requirements | Notes |
|                         | not assigned                          |                                                                                       |       |

### Deco-Paint Directive

|                                            |       |
|--------------------------------------------|-------|
| VOC content                                | 0 %   |
| VOC content (Water content was discounted) | 0 g/l |

### Industrial Emissions Directive (IED)

|                                            |       |
|--------------------------------------------|-------|
| VOC content                                | 0 %   |
| VOC content (Water content was discounted) | 0 g/l |

### Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

### Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

### Water Framework Directive (WFD)

none of the ingredients are listed

### Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

### Regulation on drug precursors

none of the ingredients are listed

### Regulation on substances that deplete the ozone layer (ODS)

none of the ingredients are listed

### Regulation concerning the export and import of hazardous chemicals (PIC)

none of the ingredients are listed

### Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

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article number:

### Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

### National inventories

| Country | Inventory  | Status                                 |
|---------|------------|----------------------------------------|
| AU      | AIIC       | all ingredients are listed             |
| CA      | DSL        | all ingredients are listed             |
| CN      | IECSC      | all ingredients are listed             |
| EU      | ECSI       | all ingredients are listed             |
| EU      | REACH Reg. | all ingredients are listed             |
| JP      | CSCL-ENCS  | not all ingredients are listed         |
| KR      | KECI       | not all ingredients are listed         |
| MX      | INSQ       | not all ingredients are listed         |
| NZ      | NZIoC      | all ingredients are listed             |
| PH      | PICCS      | all ingredients are listed             |
| TW      | TCSI       | all ingredients are listed             |
| US      | TSCA       | all ingredients are listed as "ACTIVE" |

#### Legend

|            |                                                                         |
|------------|-------------------------------------------------------------------------|
| AIIC       | Australian Inventory of Industrial Chemicals                            |
| CSCL-ENCS  | List of Existing and New Chemical Substances (CSCL-ENCS)                |
| DSL        | Domestic Substances List (DSL)                                          |
| ECSI       | EC Substance Inventory (EINECS, ELINCS, NLP)                            |
| IECSC      | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ       | National Inventory of Chemical Substances                               |
| KECI       | Korea Existing Chemicals Inventory                                      |
| NZIoC      | New Zealand Inventory of Chemicals                                      |
| PICCS      | Philippine Inventory of Chemicals and Chemical Substances (PICCS)       |
| REACH Reg. | REACH registered substances                                             |
| TCSI       | Taiwan Chemical Substance Inventory                                     |
| TSCA       | Toxic Substance Control Act                                             |

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value)                                                                                                    | Actual entry (text/value)                                                                                              | Safety-relevant |
|---------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------|
| 2.3     | Results of PBT and vPvB assessment:<br>This mixture does not contain any substances that are assessed to be a PBT or a vPvB. | Results of PBT and vPvB assessment:<br>Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$ .     | yes             |
| 2.3     |                                                                                                                              | Endocrine disrupting properties:<br>Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$ . | yes             |
| 15.1    |                                                                                                                              | VOC content (Water content was discounted):<br>0 g/l                                                                   | yes             |

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article number:

| Section | Former entry (text/value) | Actual entry (text/value)                                                    | Safety-relevant |
|---------|---------------------------|------------------------------------------------------------------------------|-----------------|
| 15.1    |                           | VOC content (Water content was discounted):<br>0 <sup>9</sup> / <sub>1</sub> | yes             |

### Abbreviations and acronyms

| Abbr.           | Descriptions of used abbreviations                                                                                                                                                |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute Tox.      | Acute toxicity                                                                                                                                                                    |
| ADR             | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)                     |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic hazard                                                                                                                             |
| ATE             | Acute Toxicity Estimate                                                                                                                                                           |
| BCF             | Bioconcentration factor                                                                                                                                                           |
| BOD             | Biochemical Oxygen Demand                                                                                                                                                         |
| CAS             | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)                                                                            |
| CLP             | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures                                                                                |
| COD             | Chemical oxygen demand                                                                                                                                                            |
| DGR             | Dangerous Goods Regulations (see IATA/DGR)                                                                                                                                        |
| DNEL            | Derived No-Effect Level                                                                                                                                                           |
| EC50            | Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval  |
| EC No           | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) |
| EINECS          | European Inventory of Existing Commercial Chemical Substances                                                                                                                     |
| ELINCS          | European List of Notified Chemical Substances                                                                                                                                     |
| EmS             | Emergency Schedule                                                                                                                                                                |
| ErC50           | ≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control            |
| Eye Dam.        | Seriously damaging to the eye                                                                                                                                                     |
| Eye Irrit.      | Irritant to the eye                                                                                                                                                               |
| GHS             | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations                                                                         |
| IATA            | International Air Transport Association                                                                                                                                           |
| IATA/DGR        | Dangerous Goods Regulations (DGR) for the air transport (IATA)                                                                                                                    |
| ICAO            | International Civil Aviation Organization                                                                                                                                         |
| ICAO-TI         | Technical instructions for the safe transport of dangerous goods by air                                                                                                           |
| IMDG            | International Maritime Dangerous Goods Code                                                                                                                                       |
| IMDG-Code       | International Maritime Dangerous Goods Code                                                                                                                                       |
| index No        | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008                                                          |

# Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



## Washing Buffer WSA

article number:

| Abbr.       | Descriptions of used abbreviations                                                                                                                |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| LC50        | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval |
| LD50        | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval                  |
| log KOW     | n-Octanol/water                                                                                                                                   |
| NLP         | No-Longer Polymer                                                                                                                                 |
| PBT         | Persistent, Bioaccumulative and Toxic                                                                                                             |
| PNEC        | Predicted No-Effect Concentration                                                                                                                 |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals                                                                              |
| Skin Corr.  | Corrosive to skin                                                                                                                                 |
| Skin Irrit. | Irritant to skin                                                                                                                                  |
| SVHC        | Substance of Very High Concern                                                                                                                    |
| VOC         | Volatile Organic Compounds                                                                                                                        |
| vPvB        | Very Persistent and very Bioaccumulative                                                                                                          |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties. The classification is based on tested mixture. Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in section 2 and 3)

| Code | Text                                               |
|------|----------------------------------------------------|
| H302 | Harmful if swallowed.                              |
| H312 | Harmful in contact with skin.                      |
| H314 | Causes severe skin burns and eye damage.           |
| H318 | Causes serious eye damage.                         |
| H332 | Harmful if inhaled.                                |
| H412 | Harmful to aquatic life with long lasting effects. |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

# Voluntary safety information following the Safety Data Sheet format according to Regulation (EC) No. 1907/2006 (REACH)



## Washing Buffer WST

article number:  
Version: **3.0 en**  
Replaces version of: 16.03.2022  
Version: (2)

date of compilation: 24.10.2015  
Revision: 29.03.2023

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

### 1.1 Product identifier

|                                 |                           |
|---------------------------------|---------------------------|
| Identification of the substance | <b>Washing Buffer WST</b> |
| Registration number (REACH)     | not relevant (mixture)    |

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

|                           |                                                                                       |
|---------------------------|---------------------------------------------------------------------------------------|
| Relevant identified uses: | Laboratory chemical<br>Laboratory and analytical use                                  |
| Uses advised against:     | Do not use for private purposes (household).<br>Food, drink and animal feedingstuffs. |

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

Carl Roth GmbH + Co KG  
Schoemperlenstr. 3-5  
D-76185 Karlsruhe  
Germany

**Telephone:**+49 (0) 721 - 56 06 0  
**Telefax:** +49 (0) 721 - 56 06 149  
**e-mail:** sicherheit@carlroth.de  
**Website:** www.carlroth.de

Competent person responsible for the safety data sheet: :Department Health, Safety and Environment

**e-mail (competent person):** **sicherheit@carlroth.de**

### 1.4 Emergency telephone number

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 (CLP)

This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

### 2.2 Label elements

#### Labelling according to Regulation (EC) No 1272/2008 (CLP)

not required

### 2.3 Other hazards

#### Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0,1\%$ .

#### Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

## Washing Buffer WST

article number:

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

not relevant (mixture)

#### 3.2 Mixtures

##### Description of the mixture

This product does not meet the criteria for classification in any hazard class according to GHS

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures



##### General notes

No special measures are necessary.

##### Following inhalation

No special measures are necessary.

##### Following skin contact

No special measures are necessary.

##### Following eye contact

No special measures are necessary.

##### Following ingestion

No special measures are necessary.

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

Symptoms and effects are not known to date.

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media



##### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings  
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

water jet

## Washing Buffer WST

article number:

### 5.2 Special hazards arising from the substance or mixture

Non-combustible.

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

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



#### For non-emergency personnel

No special measures are necessary.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water.

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

#### Advice on how to contain a spill

Covering of drains.

#### Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece).

#### Other information relating to spills and releases

Place in appropriate containers for disposal.

### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

No special measures are necessary.

#### Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs.

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

Keep container tightly closed.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice:

#### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

### 7.3 Specific end use(s)

No information available.



## Washing Buffer WST

article number:

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### National limit values

##### Occupational exposure limit values (Workplace Exposure Limits)

This information is not available.

#### 8.2 Exposure controls

##### Individual protection measures (personal protective equipment)

##### Eye/face protection



Use safety goggle with side protection.

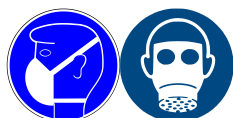
##### Skin protection



- hand protection

Hand protection is not required.

##### Respiratory protection



Usually no personal respiratory protection necessary.

##### Environmental exposure controls

Keep away from drains, surface and ground water.

### SECTION 9: Physical and chemical properties

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

|                                                          |                      |
|----------------------------------------------------------|----------------------|
| Physical state                                           | liquid               |
| Colour                                                   | colourless           |
| Odour                                                    | odourless            |
| Melting point/freezing point                             | not determined       |
| Boiling point or initial boiling point and boiling range | ~100 °C at 1.013 hPa |
| Flammability                                             | non-combustible      |
| Lower and upper explosion limit                          | not determined       |
| Flash point                                              | not determined       |

## Washing Buffer WST

article number:

|                                                     |                                                             |
|-----------------------------------------------------|-------------------------------------------------------------|
| Auto-ignition temperature                           | not determined                                              |
| Decomposition temperature                           | not relevant                                                |
| pH (value)                                          | not determined                                              |
| Kinematic viscosity                                 | not determined                                              |
| <u>Solubility(ies)</u>                              |                                                             |
| Water solubility                                    | miscible in any proportion                                  |
| <u>Partition coefficient</u>                        |                                                             |
| Partition coefficient n-octanol/water (log value):  | not relevant (inorganic)                                    |
| Vapour pressure                                     | 23 hPa at 20 °C                                             |
| <u>Density and/or relative density</u>              |                                                             |
| Density                                             | ~1 g/cm <sup>3</sup> at 20 °C                               |
| Relative vapour density                             | information on this property is not available               |
| Particle characteristics                            | not relevant (liquid)                                       |
| <u>Other safety parameters</u>                      |                                                             |
| Oxidising properties                                | none                                                        |
| <b>9.2 Other information</b>                        |                                                             |
| Information with regard to physical hazard classes: | hazard classes acc. to GHS (physical hazards): not relevant |
| Other safety characteristics:                       |                                                             |
| Miscibility                                         | completely miscible with water                              |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

There is no additional information.

## Washing Buffer WST

article number:

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

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

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification according to GHS (1272/2008/EC, CLP)

This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

#### Acute toxicity

Shall not be classified as acutely toxic.

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

#### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

#### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

#### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

#### Carcinogenicity

Shall not be classified as carcinogenic.

#### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

#### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

#### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

#### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

#### Symptoms related to the physical, chemical and toxicological characteristics

- **If swallowed**

Data are not available.

- **If in eyes**

Data are not available.

- **If inhaled**

Data are not available.

## Washing Buffer WST

article number:

- **If on skin**

Data are not available.

- **Other information**

Health effects are not known.

### 11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

### 11.3 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0,1\%$ .

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods



Consult the appropriate local waste disposal expert about waste disposal.

#### Sewage disposal-relevant information

Do not empty into drains.

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

Washing Buffer WST

article number:

**SECTION 14: Transport information**

- 14.1 UN number or ID number not subject to transport regulations
- 14.2 UN proper shipping name not assigned
- 14.3 Transport hazard class(es) none
- 14.4 Packing group not assigned
- 14.5 Environmental hazards non-environmentally hazardous acc. to the dangerous goods regulations
- 14.6 Special precautions for user  
There is no additional information.
- 14.7 Maritime transport in bulk according to IMO instruments  
The cargo is not intended to be carried in bulk.
- 14.8 Information for each of the UN Model Regulations
  - International Maritime Dangerous Goods Code (IMDG) - Additional information  
Not subject to IMDG.
  - International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information  
Not subject to ICAO-IATA.

**SECTION 15: Regulatory information**

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Relevant provisions of the European Union (EU)
  - Restrictions according to REACH, Annex XVII  
none of the ingredients are listed
  - List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list  
None of the ingredients are listed.
  - Seveso Directive

| 2012/18/EU (Seveso III) |                                       |                                                                                       |       |
|-------------------------|---------------------------------------|---------------------------------------------------------------------------------------|-------|
| No                      | Dangerous substance/hazard categories | Qualifying quantity (tonnes) for the application of lower and upper-tier requirements | Notes |
|                         | not assigned                          |                                                                                       |       |

**Deco-Paint Directive**

|                                            |        |
|--------------------------------------------|--------|
| VOC content                                | 0 %    |
| VOC content (Water content was discounted) | -0 g/l |

**Voluntary safety information following the Safety Data Sheet format according to Regulation (EC) No. 1907/2006 (REACH)**



**Washing Buffer WST**

article number:

**Industrial Emissions Directive (IED)**

|                                            |        |
|--------------------------------------------|--------|
| VOC content                                | 0 %    |
| VOC content (Water content was discounted) | -0 g/l |

**Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)**

none of the ingredients are listed

**Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)**

none of the ingredients are listed

**Water Framework Directive (WFD)**

none of the ingredients are listed

**Regulation on the marketing and use of explosives precursors**

none of the ingredients are listed

**Regulation on drug precursors**

none of the ingredients are listed

**Regulation on substances that deplete the ozone layer (ODS)**

none of the ingredients are listed

**Regulation concerning the export and import of hazardous chemicals (PIC)**

none of the ingredients are listed

**Regulation on persistent organic pollutants (POP)**

none of the ingredients are listed

**Other information**

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

**National inventories**

| Country | Inventory | Status                                 |
|---------|-----------|----------------------------------------|
| AU      | AIIC      | all ingredients are listed             |
| CA      | DSL       | all ingredients are listed             |
| CN      | IECSC     | all ingredients are listed             |
| EU      | ECSI      | all ingredients are listed             |
| JP      | CSCL-ENCS | all ingredients are listed             |
| KR      | KECI      | all ingredients are listed             |
| MX      | INSQ      | all ingredients are listed             |
| NZ      | NZIoC     | all ingredients are listed             |
| PH      | PICCS     | all ingredients are listed             |
| TW      | TCSI      | all ingredients are listed             |
| US      | TSCA      | all ingredients are listed as "ACTIVE" |

# Voluntary safety information following the Safety Data Sheet format according to Regulation (EC) No. 1907/2006 (REACH)



## Washing Buffer WST

article number:

### Legend

|           |                                                                         |
|-----------|-------------------------------------------------------------------------|
| AIIC      | Australian Inventory of Industrial Chemicals                            |
| CSCL-ENCS | List of Existing and New Chemical Substances (CSCL-ENCS)                |
| DSL       | Domestic Substances List (DSL)                                          |
| ECSI      | EC Substance Inventory (EINECS, ELINCS, NLP)                            |
| IECSC     | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ      | National Inventory of Chemical Substances                               |
| KECI      | Korea Existing Chemicals Inventory                                      |
| NZIoC     | New Zealand Inventory of Chemicals                                      |
| PICCS     | Philippine Inventory of Chemicals and Chemical Substances (PICCS)       |
| TCSI      | Taiwan Chemical Substance Inventory                                     |
| TSCA      | Toxic Substance Control Act                                             |

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value)                                                                                                                  | Actual entry (text/value)                                                                                              | Safety-relevant |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------|
| 2.3     | Results of PBT and vPvB assessment:<br>This mixture does not contain any substances that are assessed to be a PBT or a vPvB.               | Results of PBT and vPvB assessment:<br>Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$ .     | yes             |
| 2.3     |                                                                                                                                            | Endocrine disrupting properties:<br>Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$ . | yes             |
| 14.8    | Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information:<br>Not subject to ADR, RID and ADN. |                                                                                                                        | yes             |
| 15.1    | VOC content:<br>0 %<br>, -0 9/1                                                                                                            | VOC content:<br>0 %                                                                                                    | yes             |
| 15.1    |                                                                                                                                            | VOC content (Water content was discounted):<br>-0 9/1                                                                  | yes             |
| 15.1    |                                                                                                                                            | National inventories:<br>change in the listing (table)                                                                 | yes             |

### Abbreviations and acronyms

| Abbr.    | Descriptions of used abbreviations                                                                                                                            |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ADR      | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road) |
| CLP      | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures                                                            |
| DGR      | Dangerous Goods Regulations (see IATA/DGR)                                                                                                                    |
| EINECS   | European Inventory of Existing Commercial Chemical Substances                                                                                                 |
| ELINCS   | European List of Notified Chemical Substances                                                                                                                 |
| GHS      | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations                                                     |
| IATA     | International Air Transport Association                                                                                                                       |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA)                                                                                                |

# Voluntary safety information following the Safety Data Sheet format according to Regulation (EC) No. 1907/2006 (REACH)



## Washing Buffer WST

article number:

| Abbr. | Descriptions of used abbreviations                                   |
|-------|----------------------------------------------------------------------|
| ICAO  | International Civil Aviation Organization                            |
| IMDG  | International Maritime Dangerous Goods Code                          |
| NLP   | No-Longer Polymer                                                    |
| PBT   | Persistent, Bioaccumulative and Toxic                                |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| SVHC  | Substance of Very High Concern                                       |
| VOC   | Volatile Organic Compounds                                           |
| vPvB  | Very Persistent and very Bioaccumulative                             |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties. The classification is based on tested mixture. Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.



# Voluntary safety information following the Safety Data Sheet format according to Regulation (EC) No. 1907/2006 (REACH)



## Elution Buffer EB

article number:  
Version: **3.0 en**  
Replaces version of: 16.03.2022  
Version: (2)

date of compilation: 23.10.2015  
Revision: 29.03.2023

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

### 1.1 Product identifier

Identification of the substance

**Elution Buffer EB**

Registration number (REACH)

not relevant (mixture)

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

Relevant identified uses:

Laboratory chemical  
Laboratory and analytical use

Uses advised against:

Do not use for private purposes (household).  
Food, drink and animal feedingstuffs.

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

Carl Roth GmbH + Co KG  
Schoemperlenstr. 3-5  
D-76185 Karlsruhe  
Germany

**Telephone:**+49 (0) 721 - 56 06 0

**Telefax:** +49 (0) 721 - 56 06 149

**e-mail:** [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

**Website:** [www.carlroth.de](http://www.carlroth.de)

Competent person responsible for the safety data sheet: :Department Health, Safety and Environment

**e-mail (competent person):**

**[sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)**

### 1.4 Emergency telephone number

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

### 2.2 Label elements

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

not required

### 2.3 Other hazards

**Results of PBT and vPvB assessment**

Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0,1\%$ .

**Endocrine disrupting properties**

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

## Elution Buffer EB

article number:

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

not relevant (mixture)

#### 3.2 Mixtures

##### Description of the mixture

This product does not meet the criteria for classification in any hazard class according to GHS

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures



##### General notes

No special measures are necessary.

##### Following inhalation

No special measures are necessary.

##### Following skin contact

No special measures are necessary.

##### Following eye contact

No special measures are necessary.

##### Following ingestion

No special measures are necessary.

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

Symptoms and effects are not known to date.

#### 4.3 Indication of any immediate medical attention and special treatment needed

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media



##### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings  
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

water jet

## **Elution Buffer EB**

article number:

### **5.2 Special hazards arising from the substance or mixture**

Non-combustible.

### **5.3 Advice for firefighters**

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

## **SECTION 6: Accidental release measures**

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



#### **For non-emergency personnel**

No special measures are necessary.

### **6.2 Environmental precautions**

Keep away from drains, surface and ground water.

### **6.3 Methods and material for containment and cleaning up**

#### **Advice on how to contain a spill**

Covering of drains.

#### **Advice on how to clean up a spill**

Wipe up with absorbent material (e.g. cloth, fleece).

#### **Other information relating to spills and releases**

Place in appropriate containers for disposal.

### **6.4 Reference to other sections**

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

No special measures are necessary.

#### **Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs.

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

Keep container tightly closed.

#### **Incompatible substances or mixtures**

Observe hints for combined storage.

#### **Consideration of other advice:**

#### **Specific designs for storage rooms or vessels**

Recommended storage temperature: 15 – 25 °C

### **7.3 Specific end use(s)**

No information available.

Elution Buffer EB

article number:

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits)

This information is not available.

### 8.2 Exposure controls

#### Individual protection measures (personal protective equipment)

##### Eye/face protection



Use safety goggle with side protection.

##### Skin protection



- hand protection

Hand protection is not required.

##### Respiratory protection



Usually no personal respiratory protection necessary.

##### Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                          |                      |
|----------------------------------------------------------|----------------------|
| Physical state                                           | liquid               |
| Colour                                                   | colourless           |
| Odour                                                    | odourless            |
| Melting point/freezing point                             | not determined       |
| Boiling point or initial boiling point and boiling range | ~100 °C at 1.013 hPa |
| Flammability                                             | non-combustible      |
| Lower and upper explosion limit                          | not determined       |
| Flash point                                              | not determined       |

## Elution Buffer EB

article number:

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|                                                     |                                                             |
|-----------------------------------------------------|-------------------------------------------------------------|
| Auto-ignition temperature                           | not determined                                              |
| Decomposition temperature                           | not relevant                                                |
| pH (value)                                          | not determined                                              |
| Kinematic viscosity                                 | not determined                                              |
| <u>Solubility(ies)</u>                              |                                                             |
| Water solubility                                    | miscible in any proportion                                  |
| <u>Partition coefficient</u>                        |                                                             |
| Partition coefficient n-octanol/water (log value):  | not relevant (inorganic)                                    |
| Vapour pressure                                     | 23 hPa at 20 °C                                             |
| <u>Density and/or relative density</u>              |                                                             |
| Density                                             | ~1 g/cm <sup>3</sup> at 20 °C                               |
| Relative vapour density                             | information on this property is not available               |
| Particle characteristics                            | not relevant (liquid)                                       |
| <u>Other safety parameters</u>                      |                                                             |
| Oxidising properties                                | none                                                        |
| <b>9.2 Other information</b>                        |                                                             |
| Information with regard to physical hazard classes: | hazard classes acc. to GHS (physical hazards): not relevant |
| Other safety characteristics:                       |                                                             |
| Miscibility                                         | completely miscible with water                              |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

There is no additional information.

## **Elution Buffer EB**

article number:

### **10.6 Hazardous decomposition products**

Hazardous combustion products: see section 5.

## **SECTION 11: Toxicological information**

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

Test data are not available for the complete mixture.

#### **Classification procedure**

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### **Classification according to GHS (1272/2008/EC, CLP)**

This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

#### **Acute toxicity**

Shall not be classified as acutely toxic.

#### **Skin corrosion/irritation**

Shall not be classified as corrosive/irritant to skin.

#### **Serious eye damage/eye irritation**

Shall not be classified as seriously damaging to the eye or eye irritant.

#### **Respiratory or skin sensitisation**

Shall not be classified as a respiratory or skin sensitiser.

#### **Germ cell mutagenicity**

Shall not be classified as germ cell mutagenic.

#### **Carcinogenicity**

Shall not be classified as carcinogenic.

#### **Reproductive toxicity**

Shall not be classified as a reproductive toxicant.

#### **Specific target organ toxicity - single exposure**

Shall not be classified as a specific target organ toxicant (single exposure).

#### **Specific target organ toxicity - repeated exposure**

Shall not be classified as a specific target organ toxicant (repeated exposure).

#### **Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

#### **Symptoms related to the physical, chemical and toxicological characteristics**

##### **• If swallowed**

Data are not available.

##### **• If in eyes**

Data are not available.

##### **• If inhaled**

Data are not available.

## Elution Buffer EB

article number:

- **If on skin**

Data are not available.

- **Other information**

Health effects are not known.

### 11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

### 11.3 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0,1\%$ .

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods



Consult the appropriate local waste disposal expert about waste disposal.

#### Sewage disposal-relevant information

Do not empty into drains.

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

**Elution Buffer EB**

article number:

**SECTION 14: Transport information**

- 14.1 UN number or ID number** not subject to transport regulations
- 14.2 UN proper shipping name** not assigned
- 14.3 Transport hazard class(es)** none
- 14.4 Packing group** not assigned
- 14.5 Environmental hazards** non-environmentally hazardous acc. to the dangerous goods regulations
- 14.6 Special precautions for user**  
There is no additional information.
- 14.7 Maritime transport in bulk according to IMO instruments**  
The cargo is not intended to be carried in bulk.
- 14.8 Information for each of the UN Model Regulations**
- International Maritime Dangerous Goods Code (IMDG) - Additional information**  
Not subject to IMDG.
- International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information**  
Not subject to ICAO-IATA.

**SECTION 15: Regulatory information**

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- Relevant provisions of the European Union (EU)**
- Restrictions according to REACH, Annex XVII**  
none of the ingredients are listed
- List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list**  
None of the ingredients are listed.
- Seveso Directive**

| 2012/18/EU (Seveso III) |                                       |                                                                                       |       |
|-------------------------|---------------------------------------|---------------------------------------------------------------------------------------|-------|
| No                      | Dangerous substance/hazard categories | Qualifying quantity (tonnes) for the application of lower and upper-tier requirements | Notes |
|                         | not assigned                          |                                                                                       |       |

**Deco-Paint Directive**

|                                            |        |
|--------------------------------------------|--------|
| VOC content                                | 0 %    |
| VOC content (Water content was discounted) | -0 g/l |



# Voluntary safety information following the Safety Data Sheet format according to Regulation (EC) No. 1907/2006 (REACH)



## Elution Buffer EB

article number:

### Industrial Emissions Directive (IED)

|                                            |        |
|--------------------------------------------|--------|
| VOC content                                | 0 %    |
| VOC content (Water content was discounted) | -0 g/l |

### Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

### Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

### Water Framework Directive (WFD)

none of the ingredients are listed

### Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

### Regulation on drug precursors

none of the ingredients are listed

### Regulation on substances that deplete the ozone layer (ODS)

none of the ingredients are listed

### Regulation concerning the export and import of hazardous chemicals (PIC)

none of the ingredients are listed

### Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

### Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

### National inventories

| Country | Inventory | Status                                 |
|---------|-----------|----------------------------------------|
| AU      | AIIC      | all ingredients are listed             |
| CA      | DSL       | all ingredients are listed             |
| CN      | IECSC     | all ingredients are listed             |
| EU      | ECSI      | all ingredients are listed             |
| JP      | CSCL-ENCS | all ingredients are listed             |
| KR      | KECI      | all ingredients are listed             |
| MX      | INSQ      | all ingredients are listed             |
| NZ      | NZIoC     | all ingredients are listed             |
| PH      | PICCS     | all ingredients are listed             |
| TW      | TCSI      | all ingredients are listed             |
| US      | TSCA      | all ingredients are listed as "ACTIVE" |

# Voluntary safety information following the Safety Data Sheet format according to Regulation (EC) No. 1907/2006 (REACH)



## Elution Buffer EB

article number:

### Legend

|           |                                                                         |
|-----------|-------------------------------------------------------------------------|
| AIIC      | Australian Inventory of Industrial Chemicals                            |
| CSCL-ENCS | List of Existing and New Chemical Substances (CSCL-ENCS)                |
| DSL       | Domestic Substances List (DSL)                                          |
| ECSI      | EC Substance Inventory (EINECS, ELINCS, NLP)                            |
| IECSC     | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ      | National Inventory of Chemical Substances                               |
| KECI      | Korea Existing Chemicals Inventory                                      |
| NZIoC     | New Zealand Inventory of Chemicals                                      |
| PICCS     | Philippine Inventory of Chemicals and Chemical Substances (PICCS)       |
| TCSI      | Taiwan Chemical Substance Inventory                                     |
| TSCA      | Toxic Substance Control Act                                             |

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value)                                                                                                                  | Actual entry (text/value)                                                                                              | Safety-relevant |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------|
| 2.3     | Results of PBT and vPvB assessment:<br>This mixture does not contain any substances that are assessed to be a PBT or a vPvB.               | Results of PBT and vPvB assessment:<br>Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$ .     | yes             |
| 2.3     |                                                                                                                                            | Endocrine disrupting properties:<br>Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$ . | yes             |
| 14.8    | Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information:<br>Not subject to ADR, RID and ADN. |                                                                                                                        | yes             |
| 15.1    | VOC content:<br>0 %<br>, -0 9/1                                                                                                            | VOC content:<br>0 %                                                                                                    | yes             |
| 15.1    |                                                                                                                                            | VOC content (Water content was discounted):<br>-0 9/1                                                                  | yes             |
| 15.1    |                                                                                                                                            | National inventories:<br>change in the listing (table)                                                                 | yes             |

### Abbreviations and acronyms

| Abbr.    | Descriptions of used abbreviations                                                                                                                            |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ADR      | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road) |
| CLP      | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures                                                            |
| DGR      | Dangerous Goods Regulations (see IATA/DGR)                                                                                                                    |
| EINECS   | European Inventory of Existing Commercial Chemical Substances                                                                                                 |
| ELINCS   | European List of Notified Chemical Substances                                                                                                                 |
| GHS      | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations                                                     |
| IATA     | International Air Transport Association                                                                                                                       |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA)                                                                                                |

# Voluntary safety information following the Safety Data Sheet format according to Regulation (EC) No. 1907/2006 (REACH)



## Elution Buffer EB

article number:

| Abbr. | Descriptions of used abbreviations                                   |
|-------|----------------------------------------------------------------------|
| ICAO  | International Civil Aviation Organization                            |
| IMDG  | International Maritime Dangerous Goods Code                          |
| NLP   | No-Longer Polymer                                                    |
| PBT   | Persistent, Bioaccumulative and Toxic                                |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| SVHC  | Substance of Very High Concern                                       |
| VOC   | Volatile Organic Compounds                                           |
| vPvB  | Very Persistent and very Bioaccumulative                             |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties. The classification is based on tested mixture. Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.