

# FLYLEAF

## Article: 9344 ROTI® Pol ProofRead 5 U/μl

Date of compilation: 2022-10-05

### 1 Composition/information on ingredients

#### Bill of materials

| Name of substance | Identifier          | Number of pieces | Classification acc. to GHS | Pictograms | Page    |
|-------------------|---------------------|------------------|----------------------------|------------|---------|
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### 2 Hazards identification

#### 2.1 Label elements

**Signal word** Not required

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

**Precautionary statements**

### 3 Transport information

- |     |  |   |
|-----|--|---|
| 3.1 | <b>UN number or ID number</b>  | not subject to transport regulations                                  |
| 3.2 | <b>UN proper shipping name</b>   | not assigned  |
| 3.3 | <b>Transport hazard class(es)</b>  | none  |
| 3.4 | <b>Packing group</b>   | not assigned  |
| 3.5 | <b>Environmental hazards</b>   | non-environmentally hazardous acc. to the dangerous goods regulations |
| 3.6 | <b>Special precautions for user</b>  |   |
|     | There is no additional information.  |   |
| 3.7 | <b>Maritime transport in bulk according to IMO instruments</b>   |   |
|     | The cargo is not intended to be carried in bulk.   |   |
| 3.8 | <b><u>Information for each of the UN Model Regulations</u></b>   |   |
|     | <b>Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information</b> |   |
|     | not assigned   |   |
|     | <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.  |   |

# Safety data sheet Safety data sheet

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



## Polymerase - ProofRead

article number: **0560**  
Version: **2.0 en**  
Replaces version of: 2018-10-09  
Version: (1)

date of compilation: 2018-10-09  
Revision: 2022-10-05

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

### 1.1 Product identifier

Identification of the substance **Polymerase - ProofRead**  
Article number 0560

### 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 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

| Name  | Street    | Postal code/city     | Telephone    | Website |
|---|-----------|----------------------|--------------|---------|
| National Poisons Information Service<br>City Hospital | Dudley Rd | B187QH<br>Birmingham | 844 892 0111 |         |

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification acc. to GHS

This mixture does not meet the criteria for classification.

### 2.2 Label elements

#### Labelling

not required

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### 2.3 Other hazards

#### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

## 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 |
|---------------------------------------|---|------------|--|------------|-------|
| Glycerine                             | CAS No<br>56-81-5<br><br>EC No<br>200-289-5 | 50 - < 100 |  |            | IOELV |
| Tris(hydroxymethyl)aminomethane       | CAS No<br>77-86-1<br><br>EC No<br>201-064-4 | < 10       | Skin Irrit. 2 / H315<br>Eye Irrit. 2 / H319                          |            |       |
| Polyethylene glycol octylphenol ether | CAS No<br>9002-93-1                         | < 1        | Acute Tox. 4 / H302<br>Eye Dam. 1 / H318<br>Aquatic Chronic 2 / H411 |            |       |

#### Notes

IOELV: Substance with a community indicative occupational exposure limit value

| Name of substance                     | Identifier          | Specific Conc. Limits | M-Factors | ATE         | Exposure route |
|---------------------------------------|---------------------|-----------------------|-----------|-------------|----------------|
| Polyethylene glycol octylphenol ether | CAS No<br>9002-93-1 | -                     | -         | 1.800 mg/kg | oral           |

#### Substance of Very High Concern (SVHC)

| Name of substance                     | Name acc. to inventory                          | CAS No   | EC No     | Listed in      | Remarks                                   |
|---------------------------------------|---|----------|-----------|----------------|---|
| Polyethylene glycol octylphenol ether | 4-(1,1,3,3-tetramethylbutyl)phenol              | 140-66-9 | 205-426-2 | Candidate list | EDP (57f-env)                             |
| Polyethylene glycol octylphenol ether | 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated |          |           | Annex XIV      | EDP (57f-env)<br>rem-42<br>date1<br>date2 |

#### Legend

annex XIV List of substances subject to authorisation  
candidate list Substances meeting the criteria referred to in Article 57 and for eventual inclusion in Annex XIV list

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### Legend

|               |   |
|---------------|---|
| date1         | (A) 4 July 2019;<br>(b) by way of derogation from point (a), 22 June 2022 for uses as follows:<br>- for the research, development and production of medicinal products falling within the scope of Directive 2001/83/EC or medical devices or accessories to medical devices falling within the scope of Directive 93/42/EEC, Regulation (EU) 2017/745, Directive 98/79/EC or Regulation (EU) 2017/746 of the European Parliament and of the Council, in view of their use for the diagnosis, treatment or prevention of the coronavirus disease (COVID-19),<br>- in medical devices or accessories to medical devices falling within the scope of Directive 93/42/EEC, Regulation (EU) 2017/745, Directive 98/79/EC or Regulation (EU) 2017/746, for the diagnosis, treatment or prevention of COVID-19. |
| date2         | (A) 4 January 2021;<br>(b) by way of derogation from point (a), 22 December 2023 for uses as follows:<br>- for the research, development and production of medicinal products falling within the scope of Directive 2001/83/EC or medical devices or accessories to medical devices falling within the scope of Directive 93/42/EEC, Regulation (EU) 2017/745, Directive 98/79/EC or Regulation (EU) 2017/746, in view of their use for the diagnosis, treatment or prevention of COVID-19,<br>- in medical devices or accessories to medical devices falling within the scope of Directive 93/42/EEC, Regulation (EU) 2017/745, Directive 98/79/EC or Regulation (EU) 2017/746, for the diagnosis, treatment or prevention of COVID-19.  |
| EDP (57f-env) | Endocrine disrupting potential (article 57(f) - environment)  |
| rem-42        | Covering well-defined substances and UVCB substances, polymers and homologues   |

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

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

### 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

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### 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

Combustible.

##### 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>),  
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

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.

##### 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.

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### 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 in a cool place.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice:

#### Specific designs for storage rooms or vessels

Recommended storage temperature: -20 °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)

| Country | Name of agent | CAS No  | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Ceiling-C [ppm] | Ceiling-C [mg/m <sup>3</sup> ] | Notation | Source    |
|---------|---------------|---------|------------|-----------|--------------------------|------------|---------------------------|-----------------|--------------------------------|----------|-----------|
| GB      | glycerol      | 56-81-5 | WEL        |           | 10                       |            |                           |                 |                                | mist     | EH40/2005 |

##### Notation

Ceiling-C Ceiling value is a limit value above which exposure should not occur

mist As mists

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

| 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              |
| Glycerine                                   | 56-81-5 | DNEL      | 220 mg/m <sup>3</sup>   | human, inhalatory                  | worker (industry) | chronic - local effects    |
| Tris(hydroxymethyl)aminomethane             | 77-86-1 | DNEL      | 166,7 mg/kg             | human, dermal                      | worker (industry) | chronic - systemic effects |
| Tris(hydroxymethyl)aminomethane             | 77-86-1 | DNEL      | 117,5 mg/m <sup>3</sup> | human, inhalatory                  | 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                |
| Glycerine                                   | 56-81-5 | PNEC      | 1.000 mg/l      | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| Tris(hydroxymethyl)aminomethane             | 77-86-1 | PNEC      | 300 mg/l        | aquatic organisms | sewage treatment plant (STP) | 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



- **hand protection**

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374.

- **type of material**

NBR (Nitrile rubber)

- **material thickness**

>0,11 mm

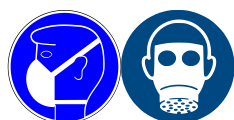
- **breakthrough times of the glove material**

>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 respiratory protection necessary.

#### Environmental exposure controls

Keep away from drains, surface and ground water.



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### SECTION 9: Physical and chemical properties

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

|  |   |
|--|---|
| Physical state   | liquid  |
| Colour   | acc. to product description                               |
| 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 determined  |
| Auto-ignition temperature                                | not determined  |
| Decomposition temperature                                | not relevant  |
| pH (value)   | not determined  |
| Kinematic viscosity                                      | not determined  |

#### Solubility(ies)

Water solubility miscible in any proportion

#### Partition coefficient

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

Vapour pressure not determined

#### Density and/or relative density

Density  $\sim 1 \text{ g/cm}^3$  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

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### 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

**Violent reaction with:** strong oxidiser

#### 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.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

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 acc. to GHS

This mixture does not meet the criteria for classification.

##### 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         |
| Polyethylene glycol octylphenol ether                      | 9002-93-1 | oral           | 1.800 mg/kg |

| Acute toxicity of components of the mixture |         |                          |          |                                  |         |
|---|---------|--------------------------|----------|----------------------------------|---------|
| Name of substance                           | CAS No  | Exposure route           | Endpoint | Value                            | Species |
| Glycerine                                   | 56-81-5 | dermal                   | LD50     | >10.000 mg/kg                    | rabbit  |
| Glycerine                                   | 56-81-5 | oral                     | LD50     | 27.200 mg/kg                     | rat     |
| Glycerine                                   | 56-81-5 | inhalation:<br>dust/mist | LC50     | >5.850 mg/m <sup>3</sup> /<br>4h | rat     |
| Tris(hydroxymethyl)aminomethane             | 77-86-1 | oral                     | LD50     | >5.000 mg/kg                     | rat     |
| Tris(hydroxymethyl)aminomethane             | 77-86-1 | dermal                   | LD50     | >5.000 mg/kg                     | rat     |

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| Acute toxicity of components of the mixture |           |                |          |             |         |
|---|-----------|----------------|----------|-------------|---------|
| Name of substance                           | CAS No    | Exposure route | Endpoint | Value       | Species |
| Polyethylene glycol octylphenol ether       | 9002-93-1 | oral           | LD50     | 1.800 mg/kg | rat     |

### 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.

#### • If on skin

Data are not available.

#### • Other information

Health effects are not known.

## 11.2 Endocrine disrupting properties

None of the ingredients are listed.

## 11.3 Information on other hazards

There is no additional information.

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### 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 |
| Glycerine   | 56-81-5   | LC50     | 54.000 mg/l | fish                  | 96 h          |
| Tris(hydroxymethyl)aminomethane                       | 77-86-1   | EC50     | >980 mg/l   | aquatic invertebrates | 48 h          |
| Tris(hydroxymethyl)aminomethane                       | 77-86-1   | ErC50    | 473 mg/l    | algae                 | 48 h          |
| Polyethylene glycol octylphenol ether                 | 9002-93-1 | LC50     | 8,9 mg/l    | Pimephales promelas   | 96 h          |
| Polyethylene glycol octylphenol ether                 | 9002-93-1 | EC50     | 26 mg/l     | daphnia               | 48 h          |

| Aquatic toxicity (chronic) of components of the mixture |         |          |             |                |               |
|---|---------|----------|-------------|----------------|---------------|
| Name of substance                                       | CAS No  | Endpoint | Value       | Species        | Exposure time |
| Tris(hydroxymethyl)aminomethane                         | 77-86-1 | EC50     | >1.000 mg/l | microorganisms | 3 h           |

#### Biodegradation

Data are not available.

#### 12.2 Process of degradability

| Degradability of components of the mixture |           |                           |                  |      |        |        |
|--|-----------|---------------------------|------------------|------|--------|--------|
| Name of substance                          | CAS No    | Process                   | Degradation rate | Time | Method | Source |
| Glycerine                                  | 56-81-5   | biotic/abiotic            | 63 %             | 14 d |        |        |
| Tris(hydroxymethyl)aminomethane            | 77-86-1   | biotic/abiotic            | 89 %             | 28 d |        |        |
| Tris(hydroxymethyl)aminomethane            | 77-86-1   | oxygen depletion          | 100,7 %          | 28 d |        | ECHA   |
| Tris(hydroxymethyl)aminomethane            | 77-86-1   | carbon dioxide generation | 65,9 %           | 28 d |        | ECHA   |
| Tris(hydroxymethyl)aminomethane            | 77-86-1   | DOC removal               | 97,1 %           | 28 d |        | ECHA   |
| Polyethylene glycol octylphenol ether      | 9002-93-1 | biotic/abiotic            | 36 %             | 28 d |        |        |

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### 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 |
| Glycerine  | 56-81-5 |     | -1,75 (pH value: 7,4, 25 °C) |          |
| Tris(hydroxymethyl)aminomethane                        | 77-86-1 |     | -1,56                        |          |

### 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

None of the ingredients are listed.

### 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.

## 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.                                   |

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### 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

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

Not subject to ADR, RID and ADN.

#### 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)

##### 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 | 0,2 %<br>3,84 g/l |
|-------------|-------------------|

##### Industrial Emissions Directive (IED)

|  |          |
|--|----------|
| VOC content                                | 0,2 %    |
| VOC content (Water content was discounted) | 3,84 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

#### 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

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### 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

### National regulations(GB)

#### List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

none of the ingredients are listed

#### Restrictions according to GB REACH, Annex 17

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       | not all ingredients are listed |
| CA      | DSL        | not all ingredients are listed |
| CN      | IECSC      | not all ingredients are listed |
| EU      | ECSI       | not all ingredients are listed |
| EU      | REACH Reg. | not 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      | not all ingredients are listed |
| PH      | PICCS      | not all ingredients are listed |
| TR      | CICR       | not all ingredients are listed |
| TW      | TCSI       | all ingredients are listed     |
| US      | TSCA       | all ingredients are listed     |

#### 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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article number: 0560

### SECTION 16: Other information

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

Alignment to regulation:

Restructuring: section 9, section 14

| Section | Former entry (text/value)  | Actual entry (text/value)  | Safety-relevant |
|---------|--|--|-----------------|
| 2.1     | Classification according to Regulation (EC) No 1272/2008 (CLP):<br>This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC. | Classification acc. to GHS:<br>This mixture does not meet the criteria for classification.                                   | yes             |
| 2.2     | Signal word:<br>not required   |  | yes             |
| 2.3     | Other hazards:<br>There is no additional information.  | Other hazards  | yes             |
| 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. | yes             |

#### Abbreviations and acronyms

| Abbr.           | Descriptions of used abbreviations  |
|-----------------|---|
| Acute Tox.      | Acute toxicity  |
| ADN             | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| 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)  |
| Ceiling-C       | Ceiling value   |
| 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)                                     |
| EH40/2005       | EH40/2005 Workplace exposure limits ( <a href="http://www.nationalarchives.gov.uk/doc/open-government-licence/">http://www.nationalarchives.gov.uk/doc/open-government-licence/</a> )                                 |
| EINECS          | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS          | European List of Notified Chemical Substances   |



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| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| 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   |
| GB REACH    | The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)  |
| 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  |
| 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   |
| ppm         | Parts per million   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| STEL        | Short-term exposure limit   |
| TWA         | Time-weighted average   |
| VOC         | Volatile Organic Compounds  |
| vPvB        | Very Persistent and very Bioaccumulative  |
| WEL         | Workplace exposure limit  |

### Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). 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).

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### 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.                   |
| H411 | Toxic 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.

# Safety data sheet

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article number: **0553**  
Version: **2.0 en**  
Replaces version of: 2018-10-09  
Version: (1)

date of compilation: 2018-10-09  
Revision: 2022-10-05

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

### 1.1 Product identifier

Identification of the substance **PCR-Buffer (10x) - ProofRead**  
Article number 0553

### 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 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

| Name  | Street    | Postal code/city     | Telephone    | Website |
|---|-----------|----------------------|--------------|---------|
| National Poisons Information Service<br>City Hospital | Dudley Rd | B187QH<br>Birmingham | 844 892 0111 |         |

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification acc. to GHS

This mixture does not meet the criteria for classification.

### 2.2 Label elements

#### Labelling

not required

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### 2.3 Other hazards

#### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

## 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 |
|---------------------------------|---|------|---|------------|-------|
| Tris(hydroxymethyl)aminomethane | CAS No<br>77-86-1<br><br>EC No<br>201-064-4 | < 10 | Skin Irrit. 2 / H315<br>Eye Irrit. 2 / H319 |            |       |

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

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

### 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

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### 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.

##### Hazardous combustion products

In case of fire may be liberated: Nitrogen oxides (NO<sub>x</sub>)

#### 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. 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.

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### 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 in a cool place.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice:

#### Specific designs for storage rooms or vessels

Recommended storage temperature: -20 °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              |
| Tris(hydroxymethyl)aminomethane             | 77-86-1 | DNEL      | 166,7 mg/kg             | human, dermal                      | worker (industry) | chronic - systemic effects |
| Tris(hydroxymethyl)aminomethane             | 77-86-1 | DNEL      | 117,5 mg/m <sup>3</sup> | human, inhalatory                  | 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                |
| Tris(hydroxymethyl)aminomethane             | 77-86-1 | PNEC      | 300 mg/l        | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |

#### 8.2 Exposure controls

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

##### Eye/face protection



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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.

- **type of material**

NBR (Nitrile rubber)

- **material thickness**

>0,11 mm

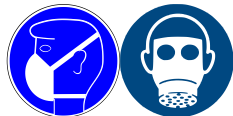
- **breakthrough times of the glove material**

>480 minutes (permeation: level 6)

- **other protection measures**

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

### Respiratory protection



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   | acc. to product description |
| 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)   | not determined              |
| Kinematic viscosity                                      | not determined              |

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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 toxicological effects

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 acc. to GHS

This mixture does not meet the criteria for classification.

##### Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity of components of the mixture |         |                |          |              |         |
|---|---------|----------------|----------|--------------|---------|
| Name of substance                           | CAS No  | Exposure route | Endpoint | Value        | Species |
| Tris(hydroxymethyl)aminomethane             | 77-86-1 | oral           | LD50     | >5.000 mg/kg | rat     |
| Tris(hydroxymethyl)aminomethane             | 77-86-1 | dermal         | LD50     | >5.000 mg/kg | rat     |

##### 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.

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- **If inhaled**

Data are not available.

- **If on skin**

Data are not available.

- **Other information**

Health effects are not known.

### 11.2 Endocrine disrupting properties

None of the ingredients are 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.

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

| Name of substance               | CAS No  | Endpoint | Value     | Species               | Exposure time |
|---------------------------------|---------|----------|-----------|-----------------------|---------------|
| Tris(hydroxymethyl)aminomethane | 77-86-1 | EC50     | >980 mg/l | aquatic invertebrates | 48 h          |
| Tris(hydroxymethyl)aminomethane | 77-86-1 | ErC50    | 473 mg/l  | algae                 | 48 h          |

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

| Name of substance               | CAS No  | Endpoint | Value       | Species        | Exposure time |
|---------------------------------|---------|----------|-------------|----------------|---------------|
| Tris(hydroxymethyl)aminomethane | 77-86-1 | EC50     | >1.000 mg/l | microorganisms | 3 h           |

### Biodegradation

The methods for determining the biological degradability are not applicable to inorganic substances.

### 12.2 Process of degradability

#### Degradability of components of the mixture

| Name of substance               | CAS No  | Process                   | Degradation rate | Time | Method | Source |
|---------------------------------|---------|---------------------------|------------------|------|--------|--------|
| Tris(hydroxymethyl)aminomethane | 77-86-1 | biotic/abiotic            | 89 %             | 28 d |        |        |
| Tris(hydroxymethyl)aminomethane | 77-86-1 | oxygen depletion          | 100,7 %          | 28 d |        | ECHA   |
| Tris(hydroxymethyl)aminomethane | 77-86-1 | carbon dioxide generation | 65,9 %           | 28 d |        | ECHA   |

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### Degradability of components of the mixture

| Name of substance               | CAS No  | Process     | Degradation rate | Time | Method | Source |
|---------------------------------|---------|-------------|------------------|------|--------|--------|
| Tris(hydroxymethyl)aminomethane | 77-86-1 | DOC removal | 97,1 %           | 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 |
|---------------------------------|---------|-----|---------|----------|
| Tris(hydroxymethyl)aminomethane | 77-86-1 |     | -1,56   |          |

### 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

None of the ingredients are listed.

### 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.

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### 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**

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

Not subject to ADR, RID and ADN.

**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)**

**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 %<br>0 g/l |
|-------------|--------------|

**Industrial Emissions Directive (IED)**

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|  |       |
|--|-------|
| 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

### 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

### National regulations(GB)

### List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

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       | not all ingredients are listed |
| CA      | DSL        | not all ingredients are listed |
| CN      | IECSC      | all ingredients are listed     |
| EU      | ECSI       | all ingredients are listed     |
| EU      | REACH Reg. | not all ingredients are listed |
| JP      | CSCL-ENCS  | not all ingredients are listed |
| JP      | ISHA-ENCS  | not all ingredients are listed |
| KR      | KECI       | not all ingredients are listed |
| MX      | INSQ       | not all ingredients are listed |
| NZ      | NZIoC      | not all ingredients are listed |
| PH      | PICCS      | not all ingredients are listed |
| TR      | CICR       | not all ingredients are listed |

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| Country | Inventory | Status                         |
|---------|-----------|--------------------------------|
| TW      | TCSI      | all ingredients are listed     |
| US      | TSCA      | not all ingredients are listed |

### 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   |

## 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)

Alignment to regulation:

Restructuring: section 9, section 14

| Section | Former entry (text/value)  | Actual entry (text/value)  | Safety-relevant |
|---------|--|--|-----------------|
| 2.1     | Classification according to Regulation (EC) No 1272/2008 (CLP):<br>This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC. | Classification acc. to GHS:<br>This mixture does not meet the criteria for classification.                                   | yes             |
| 2.2     | Signal word:<br>not required   |  | yes             |
| 2.3     | Other hazards:<br>There is no additional information.  | Other hazards  | yes             |
| 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. | yes             |

### Abbreviations and acronyms

| Abbr. | Descriptions of used abbreviations  |
|-------|---|
| ADN   | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| 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)  |
| COD   | Chemical oxygen demand  |

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| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| 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       | ≡ 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   |
| GB REACH    | The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)  |
| 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  |
| 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  |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)           |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| VOC         | Volatile Organic Compounds  |
| vPvB        | Very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

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

# Safety data sheet

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



## PCR-Buffer (10x) - ProofRead

article number: **0553**

### 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                           |
|------|--------------------------------|
| H315 | Causes skin irritation.        |
| H319 | Causes serious eye 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.