

20.08.2020

### Kit components

| Product code                        | Description                                 |
|-------------------------------------|---|
| <b>1632100</b><br><b>1632100EDU</b> | <b>ReadyPrep™ Sequential Extraction Kit</b> |

#### Components:

|         |   |
|---------|---|
| 1632102 | Sequential Extraction Reagent 1               |
| 1632103 | Sequential Extraction Reagent 2               |
| 1632101 | ReadyPrep™ TBP Reducing Agent                 |
| 1632104 | ReadyPrep Sequential Extraction Kit Reagent 3 |

## Safety data sheet according SS 586 : Part 3

Printing date 20.08.2020

Revision: 20.08.2020

### SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** Sequential Extraction Reagent 1
- **Article number:** 1632102
- **CAS Number:**  
77-86-1
- **EC number:**  
201-064-4
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Bio-Rad Laboratories Pte Ltd.  
27 International Business Park 01-02  
Singapore 609924
- **Information department:** sales.singapore@bio-rad.com
- **1.4 Emergency telephone number:** 65-6415-3188

phone: 65-6415-3188 fax: 65-6415-3189

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The substance is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Not Applicable
- **Hazard pictograms** Not Applicable
- **Signal word** Not Applicable
- **Hazard statements** Not Applicable
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description:**  
77-86-1 Tris(hydroxymethyl)aminomethane
- **Identification number(s):**
- **EC number:** 201-064-4
- **Additional information:** For the wording of the listed risk phrases refer to section 16.

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### SECTION 4: First-aid measures

- **4.1 Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Generally the product does not irritate the skin.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
The usual precautionary measures should be adhered to when handling chemicals.
- **Protection of hands:** Protective gloves.
- **Material of gloves:** Synthetic gloves
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

## SECTION 9: Physical and chemical properties

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

#### · General Information

##### · Appearance:

|                  |                 |
|------------------|-----------------|
| Form:            | Solid.          |
| Colour:          | White           |
| Odour:           | Odourless       |
| Odour threshold: | Not determined. |

|             |         |
|-------------|---------|
| · pH-value: | 10.5-12 |
|-------------|---------|

##### · Change in condition

|  |          |
|--|----------|
| Melting point/freezing point:            | 171.2 °C |
| Initial boiling point and boiling range: | 219 °C   |

|                |                                   |
|----------------|-----------------------------------|
| · Flash point: | Not applicable<br>Not determined. |
|----------------|-----------------------------------|

|                                 |                           |
|---------------------------------|---------------------------|
| · Flammability (solid, gaseous) | Product is not flammable. |
|---------------------------------|---------------------------|

|                              |                 |
|------------------------------|-----------------|
| · Decomposition temperature: | Not determined. |
|------------------------------|-----------------|

|                  |                 |
|------------------|-----------------|
| · Self igniting: | Not determined. |
|------------------|-----------------|

|                         |                 |
|-------------------------|-----------------|
| · Explosive properties: | Not determined. |
|-------------------------|-----------------|

##### · Explosion limits:

|        |                 |
|--------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

|                    |                 |
|--------------------|-----------------|
| · Vapour pressure: | Not applicable. |
|--------------------|-----------------|

|                     |                        |
|---------------------|------------------------|
| · Density at 20 °C: | 0.84 g/cm <sup>3</sup> |
| · Relative density  | Not determined.        |
| · Vapour density    | Not applicable.        |
| · Evaporation rate  | Not applicable.        |

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- |   |  |
|---|--|
| <b>· Solubility in / Miscibility with Water at 20 °C:</b> | 678 g/l                                    |
| <b>· Partition coefficient: n-octanol/water:</b>          | Not determined.                            |
| <b>· Viscosity:</b>                                       |  |
| <b>dynamic:</b>   | Not applicable.                            |
| <b>kinematic:</b>   | Not applicable.                            |
| <b>· Solids content:</b>                                  | 100.0 %                                    |
| <b>· 9.2 Other information</b>                            | No further relevant information available. |

### SECTION 10: Stability and reactivity

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

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

#### · LD/LC50 values that are relevant for classification:

##### 77-86-1 Tris(hydroxymethyl)aminomethane

|        |      |                    |
|--------|------|--------------------|
| Oral   | LD50 | 5,900 mg/kg (Rat)  |
| Dermal | LD50 | >5,000 mg/kg (Rat) |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

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### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### SECTION 14: Transport information

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN-Number</b></li> <li>· <b>ADR, ADN, IMDG, IATA</b></li> </ul>  | Not Reguated                                 |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>ADN, IMDG, IATA</b></li> </ul>           | Not Reguated<br>Not Reguated<br>Not Reguated |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR, ADN, IMDG, IATA</b></li> <li>· <b>Class</b></li> </ul> | Not Reguated                                 |
| <ul style="list-style-type: none"> <li>· <b>14.4 Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | Not Reguated                                 |
| <ul style="list-style-type: none"> <li>· <b>14.5 Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> </ul>                                | No   |
| <ul style="list-style-type: none"> <li>· <b>14.6 Special precautions for user</b></li> </ul>  | Not applicable.                              |

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- |  |                 |
|--|-----------------|
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>  | Not Reguated    |

### SECTION 15: Regulatory information

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

- **Poisons Act - Schedule 1**

Substance is not listed.

- **Poisons Act - Schedule 2, Group II**

Substance is not listed.

- **Health Products Act - First Schedule - Psychotropic Substances**

Substance is not listed.

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** Substance is not listed.

- **National regulations**

- **Water hazard class:** Generally not hazardous for water.

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

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environmental Health and Safety.

- **Contact:**

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

## Safety data sheet according SS 586 : Part 3

Printing date 20.08.2020

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### SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** Sequential Extraction Reagent 2
- **Article number:** 1632103, 9703561
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Bio-Rad Laboratories Pte Ltd.  
27 International Business Park 01-02  
Singapore 609924
- **Information department:** sales.singapore@bio-rad.com
- **1.4 Emergency telephone number:** 65-6415-3188

phone: 65-6415-3188 fax: 65-6415-3189

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008** The product is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Not Applicable
- **Hazard pictograms** Not Applicable
- **Signal word** Not Applicable
- **Hazard statements** Not Applicable
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Not applicable.
- **Additional information** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First-aid measures

- **4.1 Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Generally the product does not irritate the skin.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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

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### SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.
- **6.4 Reference to other sections**  
No dangerous substances are released.  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.

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**Trade name: Sequential Extraction Reagent 2**

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- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
The usual precautionary measures should be adhered to when handling chemicals.
- **Protection of hands:** Protective gloves.
- **Material of gloves:** Synthetic gloves
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

## SECTION 9: Physical and chemical properties

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

#### · General Information

##### · Appearance:

|                  |                 |
|------------------|-----------------|
| Form:            | Solid.          |
| Colour:          | White           |
| Odour:           | Odourless       |
| Odour threshold: | Not determined. |

· **pH-value at 20 °C:** 9.2

##### · Change in condition

|  |              |
|--|--------------|
| Melting point/freezing point:            | 135 °C       |
| Initial boiling point and boiling range: | undetermined |

· **Flash point:** Not applicable  
Not determined.

· **Flammability (solid, gaseous)** Not determined.

· **Decomposition temperature:** Not determined.

· **Self igniting:** Product is not selfigniting.

· **Explosive properties:** Not determined.

· **Explosion limits:**  
Lower: Not determined.  
Upper: Not determined.

· **Vapour pressure:** Not applicable.

· **Density:** Not determined  
· **Relative density** Not determined.  
· **Vapour density** Not applicable.  
· **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**  
Water at 20 °C: 800 g/l  
Fully miscible

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- |  |  |
|--|--|
| · <b>Partition coefficient: n-octanol/water:</b> | Not determined.                            |
| · <b>Viscosity:</b>                              |  |
| dynamic:   | Not applicable.                            |
| kinematic:                                       | Not applicable.                            |
| · <b>Solvent content:</b>                        |  |
| Water:   | 0.2 %                                      |
| Solids content:                                  | 99.7 %                                     |
| · <b>9.2 Other information</b>                   | No further relevant information available. |

### SECTION 10: Stability and reactivity

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

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

#### · LD/LC50 values that are relevant for classification:

##### 57-13-6 urea

|      |      |                    |
|------|------|--------------------|
| Oral | LD50 | 14,500 mg/kg (rat) |
|------|------|--------------------|

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.

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- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
 Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.  
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
 Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

- |   |  |
|---|--|
| · <b>14.1 UN-Number</b><br>· <b>ADR, ADN, IMDG, IATA</b>                                    | Not Reguated   |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADR, ADN, IMDG, IATA</b>                      | Not Reguated   |
| · <b>14.3 Transport hazard class(es)</b><br>· <b>ADR, ADN, IMDG, IATA</b><br>· <b>Class</b> | Not Reguated   |
| · <b>14.4 Packing group</b><br>· <b>ADR, IMDG, IATA</b>                                     | Not Reguated   |
| · <b>14.5 Environmental hazards:</b><br>· <b>Marine pollutant:</b>                          | No   |
| · <b>14.6 Special precautions for user</b>  | Not applicable.                                      |
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>            | Not applicable.                                      |
| · <b>Transport/Additional information:</b>  | Not dangerous according to the above specifications. |

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### SECTION 15: Regulatory information

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

##### · Poisons Act - Schedule 1

57-13-6 urea

##### · Poisons Act - Schedule 2, Group II

None of the ingredients is listed.

##### · Health Products Act - First Schedule - Psychotropic Substances

None of the ingredients is listed.

##### · Directive 2012/18/EU

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

##### · National regulations

##### · Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

##### · Department issuing SDS: Environmental Health and Safety.

##### · Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

##### · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

## Safety data sheet according SS 586 : Part 3

Printing date 20.08.2020

Revision: 29.07.2020

### SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** ReadyPrep™ TBP Reducing Agent
- **Article number:** 1632101, 1632101EDU
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Bio-Rad Laboratories Pte Ltd.  
27 International Business Park 01-02  
Singapore 609924
- **Information department:** sales.singapore@bio-rad.com
- **1.4 Emergency telephone number:** 65-6415-3188

phone: 65-6415-3188 fax: 65-6415-3189

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008** The product is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Not Applicable
- **Hazard pictograms** Not Applicable
- **Signal word** Not Applicable
- **Hazard statements** Not Applicable
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

|                                    |                        |   |         |
|------------------------------------|------------------------|---|---------|
| CAS: 872-50-4<br>EINECS: 212-828-1 | N-methyl-2-pyrrolidone | Repr. 1B, H360<br>Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335<br>Flam. Liq. 4, H227; Acute Tox. 5, H303                          | 50-100% |
| CAS: 998-40-3<br>EINECS: 213-651-2 | tributylphosphine      | Flam. Liq. 3, H226; Self-heat. 1, H251<br>Ox. Liq. 2, H272<br>Acute Tox. 3, H301; Acute Tox. 3, H311<br>Skin Corr. 1B, H314; Eye Dam. 1, H318 | 3-<5%   |

· **SVHC**

|          |                        |
|----------|------------------------|
| 872-50-4 | N-methyl-2-pyrrolidone |
|----------|------------------------|

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· **Additional information** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First-aid measures

- **4.1 Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

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### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
  - **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2 Exposure controls**
  - **Personal protective equipment**
  - **General protective and hygienic measures**  
The usual precautionary measures should be adhered to when handling chemicals.
  - **Breathing equipment:** Not required.
  - **Protection of hands:** Protective gloves.
  - **Material of gloves:** Synthetic gloves
  - **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
  - **Eye protection:** Safety glasses

### SECTION 9: Physical and chemical properties

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

##### · General Information

##### · Appearance:

|                           |                 |
|---------------------------|-----------------|
| · <b>Form:</b>            | Fluid           |
| · <b>Colour:</b>          | Colourless      |
| · <b>Odour:</b>           | Amine-like      |
| · <b>Odour threshold:</b> | Not determined. |

|                    |                 |
|--------------------|-----------------|
| · <b>pH-value:</b> | Not determined. |
|--------------------|-----------------|

##### · Change in condition

|   |              |
|---|--------------|
| · <b>Melting point/freezing point:</b>            | -24 °C       |
| · <b>Initial boiling point and boiling range:</b> | undetermined |

|                       |                                   |
|-----------------------|-----------------------------------|
| · <b>Flash point:</b> | Not applicable<br>Not determined. |
|-----------------------|-----------------------------------|

|  |                 |
|--|-----------------|
| · <b>Flammability (solid, gaseous)</b> | Not applicable. |
|--|-----------------|

|                                |        |
|--------------------------------|--------|
| · <b>Ignition temperature:</b> | 270 °C |
|--------------------------------|--------|

|                                     |                 |
|-------------------------------------|-----------------|
| · <b>Decomposition temperature:</b> | Not determined. |
|-------------------------------------|-----------------|

|                         |                              |
|-------------------------|------------------------------|
| · <b>Self igniting:</b> | Product is not selfigniting. |
|-------------------------|------------------------------|

|                                |                 |
|--------------------------------|-----------------|
| · <b>Explosive properties:</b> | Not determined. |
|--------------------------------|-----------------|

|                            |           |
|----------------------------|-----------|
| · <b>Explosion limits:</b> |           |
| · <b>Lower:</b>            | 1.3 Vol % |

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|  |  |
|--|--|
| <b>Upper:</b>                                    | 9.5 Vol %                                  |
| · <b>Vapour pressure at 20 °C:</b>               | 0.3 hPa                                    |
| · <b>Density at 20 °C:</b>                       | 1.013 g/cm <sup>3</sup>                    |
| · <b>Relative density</b>                        | Not determined.                            |
| · <b>Vapour density</b>                          | Not determined.                            |
| · <b>Evaporation rate</b>                        | Not determined.                            |
| · <b>Solubility in / Miscibility with Water:</b> | Fully miscible                             |
| · <b>Partition coefficient: n-octanol/water:</b> | Not determined.                            |
| · <b>Viscosity:</b>                              |  |
| dynamic:   | Not determined.                            |
| kinematic:                                       | Not determined.                            |
| · <b>Solvent content:</b>                        |  |
| Organic solvents:                                | 95.8 %                                     |
| · <b>9.2 Other information</b>                   | No further relevant information available. |

## SECTION 10: Stability and reactivity

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

## SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

### LD/LC50 values that are relevant for classification:

#### 872-50-4 N-methyl-2-pyrrolidone

|        |      |                   |
|--------|------|-------------------|
| Oral   | LD50 | 3,600 mg/kg (rat) |
| Dermal | LD50 | 8,000 mg/kg (rbt) |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.

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- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN-Number</b></li> <li>· <b>ADR, ADN, IMDG, IATA</b></li> </ul>  | Not Reguated                                 |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>ADN, IMDG, IATA</b></li> </ul>           | Not Reguated<br>Not Reguated<br>Not Reguated |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR, ADN, IMDG, IATA</b></li> <li>· <b>Class</b></li> </ul> | Not Reguated                                 |
| <ul style="list-style-type: none"> <li>· <b>14.4 Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | Not Reguated                                 |

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- |  |                 |
|--|-----------------|
| <b>· 14.5 Environmental hazards:</b>   |                 |
| · <b>Marine pollutant:</b>   | No              |
| · <b>14.6 Special precautions for user</b>                                       | Not applicable. |
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>  | Not Reguated    |

### SECTION 15: Regulatory information

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

##### · Poisons Act - Schedule 1

None of the ingredients is listed.

##### · Poisons Act - Schedule 2, Group II

None of the ingredients is listed.

##### · Health Products Act - First Schedule - Psychotropic Substances

None of the ingredients is listed.

##### · Directive 2012/18/EU

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

##### · National regulations

##### · Technical instructions (air):

| Class | Share in % |
|-------|------------|
| NK    | 50-100     |

##### · Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

##### · Other regulations, limitations and prohibitive regulations

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

872-50-4 | N-methyl-2-pyrrolidone

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

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

##### · Department issuing SDS: Environmental Health and Safety.

##### · Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000  
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#### • Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids – Category 3

Flam. Liq. 4: Flammable liquids – Category 4

Self-heat. 1: Self-heating substances and mixtures – Category 1

Ox. Liq. 2: Oxidizing liquids – Category 2

Acute Tox. 3: Acute toxicity - oral – Category 3

Acute Tox. 5: Acute toxicity - oral – Category 5

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Repr. 1B: Reproductive toxicity – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

#### • \* Data compared to the previous version altered.

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### SECTION 1: Identification

- **1.1 Product identifier**
- **Trade name:** ReadyPrep Sequential Extraction Kit Reagent 3
- **Article number:** 1632104, 9703562
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Bio-Rad Laboratories Pte Ltd.  
27 International Business Park 01-02  
Singapore 609924
- **Information department:** sales.singapore@bio-rad.com
- **1.4 Emergency telephone number:** 65-6415-3188

phone: 65-6415-3188 fax: 65-6415-3189

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008** The product is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Not Applicable
- **Hazard pictograms** Not Applicable
- **Signal word** Not Applicable
- **Hazard statements** Not Applicable
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

|                                      |  |        |
|--------------------------------------|--|--------|
| CAS: 62-56-6<br>EINECS: 200-543-5    | thiourea<br>Carc. 2, H351; Repr. 2, H361<br>Aquatic Chronic 2, H411<br>Acute Tox. 4, H302<br>Acute Tox. 5, H313                    | 25-35% |
| CAS: 55179-31-2<br>EINECS: 259-513-5 | 1-(4-biphenyloxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanol<br>Acute Tox. 3, H331<br>Acute Tox. 4, H302; Acute Tox. 4, H312 | 2.5-5% |

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

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### SECTION 4: First-aid measures

- **4.1 Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Generally the product does not irritate the skin.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Fire-fighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

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### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
  - **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2 Exposure controls**
  - **Personal protective equipment**
  - **General protective and hygienic measures**  
The usual precautionary measures should be adhered to when handling chemicals.
  - **Breathing equipment:** Not required.
  - **Protection of hands:** Protective gloves.
  - **Material of gloves:** Synthetic gloves
  - **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
  - **Eye protection:** Safety glasses

### SECTION 9: Physical and chemical properties

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

##### · General Information

##### · Appearance:

|                  |                 |
|------------------|-----------------|
| Form:            | Fluid           |
| Colour:          | Light yellow    |
| Odour:           | Odourless       |
| Odour threshold: | Not determined. |

|           |                 |
|-----------|-----------------|
| pH-value: | Not determined. |
|-----------|-----------------|

##### · Change in condition

|  |              |
|--|--------------|
| Melting point/freezing point:            | undetermined |
| Initial boiling point and boiling range: | undetermined |

|              |                                   |
|--------------|-----------------------------------|
| Flash point: | Not applicable<br>Not determined. |
|--------------|-----------------------------------|

|                               |                 |
|-------------------------------|-----------------|
| Flammability (solid, gaseous) | Not applicable. |
|-------------------------------|-----------------|

|                       |        |
|-----------------------|--------|
| Ignition temperature: | 440 °C |
|-----------------------|--------|

|                            |                 |
|----------------------------|-----------------|
| Decomposition temperature: | Not determined. |
|----------------------------|-----------------|

|                |                              |
|----------------|------------------------------|
| Self igniting: | Product is not selfigniting. |
|----------------|------------------------------|

|                       |                 |
|-----------------------|-----------------|
| Explosive properties: | Not determined. |
|-----------------------|-----------------|

|                   |                 |
|-------------------|-----------------|
| Explosion limits: |                 |
| Lower:            | Not determined. |

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|  |  |
|--|--|
| <b>Upper:</b>                                    | Not determined.                            |
| · <b>Vapour pressure:</b>                        | Not determined.                            |
| · <b>Density:</b>                                | Not determined                             |
| · <b>Relative density</b>                        | Not determined.                            |
| · <b>Vapour density</b>                          | Not determined.                            |
| · <b>Evaporation rate</b>                        | Not determined.                            |
| · <b>Solubility in / Miscibility with Water:</b> | Fully miscible                             |
| · <b>Partition coefficient: n-octanol/water:</b> | Not determined.                            |
| · <b>Viscosity:</b>                              |  |
| dynamic:   | Not determined.                            |
| kinematic:                                       | Not determined.                            |
| · <b>Solvent content:</b>                        |  |
| Water:   | 0.2 %                                      |
| <b>Solids content:</b>                           | 99.7 %                                     |
| · <b>9.2 Other information</b>                   | No further relevant information available. |

## SECTION 10: Stability and reactivity

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

## SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**

### 57-13-6 urea

|      |      |                    |
|------|------|--------------------|
| Oral | LD50 | 14,500 mg/kg (rat) |
|------|------|--------------------|

### 62-56-6 thiourea

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 1,750 mg/kg (rat) |
|------|------|-------------------|

|        |      |                   |
|--------|------|-------------------|
| Dermal | LD50 | 2,800 mg/kg (rbt) |
|--------|------|-------------------|

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

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- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN2810
- **14.2 UN proper shipping name**

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|  |  |
|--|--|
| · <b>ADR</b>   | 2810 TOXIC LIQUID, ORGANIC, N.O.S. (thiourea, 1-(4-biphenyloxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanol), ENVIRONMENTALLY HAZARDOUS   |
| · <b>IMDG, IATA</b>  | 2810 TOXIC LIQUID, ORGANIC, N.O.S. (thiourea, β-([1,1'-biphenyl]-4-yloxy)-α-tert-butyl-1H-1,2,4-triazol-1-ethanol)<br>TOXIC LIQUID, ORGANIC, N.O.S. (thiourea, 1-(4-biphenyloxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanol) |
| · <b>14.3 Transport hazard class(es)</b>   |  |
| · <b>ADR, IMDG, IATA</b>   |  |
| · <b>Class</b>   | 6.1 Toxic substances.  |
| · <b>Label</b>   | 6.1  |
| · <b>14.4 Packing group</b>  |  |
| · <b>ADR, IMDG, IATA</b>   | III  |
| · <b>14.5 Environmental hazards:</b>   |  |
| · <b>Marine pollutant:</b>   | No   |
| · <b>Special marking (ADR):</b>  | Symbol (fish and tree)   |
| · <b>14.6 Special precautions for user</b>                                       | Warning: Toxic substances.   |
| · <b>Hazard identification number (Kemler code):</b>                             | 60   |
| · <b>EMS Number:</b>   | F-A,S-A  |
| · <b>Stowage Category</b>  | A  |
| · <b>Stowage Code</b>  | SW2 Clear of living quarters.  |
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable.  |
| · <b>Transport/Additional information:</b>                                       |  |
| · <b>ADR</b>   |  |
| · <b>Limited quantities (LQ)</b>   | 5L   |
| · <b>Excepted quantities (EQ)</b>  | Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml   |
| · <b>Transport category</b>  | 2  |
| · <b>Tunnel restriction code</b>   | E  |
| · <b>IMDG</b>  |  |
| · <b>Limited quantities (LQ)</b>   | 5L   |
| · <b>Excepted quantities (EQ)</b>  | Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml   |
| · <b>UN "Model Regulation":</b>  | UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (THIOUREA, 1-(4-BIPHENYLYLOXY)-3,3-DIMETHYL-1-(1H-1,2,4-TRIAZOL-1-YL)-2-BUTANOL), 6.1, III, ENVIRONMENTALLY HAZARDOUS  |

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### SECTION 15: Regulatory information

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

##### Poisons Act - Schedule 1

57-13-6 urea

##### Poisons Act - Schedule 2, Group II

None of the ingredients is listed.

##### Health Products Act - First Schedule - Psychotropic Substances

None of the ingredients is listed.

##### Directive 2012/18/EU

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

**Seveso category E2** Hazardous to the Aquatic Environment

**Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t

**Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

##### National regulations

##### Technical instructions (air):

| Class | Share in % |
|-------|------------|
| I     | 20-35      |

**Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

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

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing SDS:** Environmental Health and Safety.

#### Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

#### Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - oral - Category 4

Acute Tox. 5: Acute toxicity - dermal - Category 5

Acute Tox. 3: Acute toxicity - inhalation - Category 3

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*Carc. 2: Carcinogenicity – Category 2**Repr. 2: Reproductive toxicity – Category 2**Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*

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