

### 20.08.2020 Kit components

Product code	Description

1632100	ReadyPrep <sup>TM</sup> Sequential Extraction Kit
1632100EDU	

### Components:

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

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## Safety Data Sheet according to WHS Regulations

Printing date 20.08.2020 Revision: 20.08.2020

Not classified as hazardous according to criteria of Safe Work Australia.

#### 1 Identification

· Product identifier

· Trade name: Sequential Extraction Reagent 1

· Article number: 1632102

· CAS Number:

77-86-1

· EC number:

201-064-4

· 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
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Bio-Rad Laboratories Pty. Ltd

Level 5. 446 Victoria Road

Gladesville NSW 2111

Australia

Tel 61-2-9914-2800 (1 800 224 354) Fax 61-2-9914-2888

- · Information department: sales.australia@bio-rad.com
- · Emergency telephone number: 61-2-9037-2994

#### 2 Hazard(s) Identification

· Classification of the substance or mixture

The substance is not classified, according to the Globally Harmonised System (GHS).

- · Label elements
- · GHS label elements Not Applicable
- · Hazard pictograms Not Applicable
- · Signal word Not Applicable
- · Hazard statements Not Applicable
- · Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

#### 3 Composition and Information on Ingredients

- · Chemical characterisation: Substances
- · CAS No. Description:

77-86-1 Tris(hydroxymethyl)aminomethane

- · Identification number(s):
- · EC number: 201-064-4

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## Safety Data Sheet according to WHS Regulations

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Trade name: Sequential Extraction Reagent 1

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· Additional information: For the wording of the listed risk phrases refer to section 16.

### **4 First Aid Measures**

- · 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.
- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

### 5 Fire Fighting Measures

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

#### 6 Accidental Release Measures

- · Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- · Environmental precautions: No special measures required.
- · Methods and material for containment and cleaning up: Pick up mechanically.
- · 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.

#### 7 Handling and Storage

- · Handling
- · Precautions for safe handling No special precautions are necessary if used correctly.
- · Information about protection against explosions and fires: No special measures required.
- · 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.

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

#### 8 Exposure controls and personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · 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.
- · 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Safety glasses

9 Physical and Chemical Properties  • 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: Initial boiling point and boiling ra	171.2 °C nnge: 219 °C	
· Flash point:	Not applicable 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.	

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Trade name: Sequential Extraction Reagent 1

	(Contd. of page
· Vapour pressure:	Not applicable.
<ul> <li>Density at 20 °C:</li> <li>Relative density</li> <li>Vapour density</li> <li>Evaporation rate</li> </ul>	0.84 g/cm³ Not determined. Not applicable. Not applicable.
· Solubility in / Miscibility with Water at 20 °C:	678 g/l
Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: dynamic: kinematic:	Not applicable. Not applicable.
Solids content: Other information	100.0 % No further relevant information available.

#### 10 Stability and Reactivity

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

### 11 Toxicological Information

- · Information on toxicological effects
- · Acute toxicity
- · 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 No irritant effect.
- · Serious eye damage/irritation No irritating effect.
- · Respiratory or skin sensitisation No sensitising effects known.
- · Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The substance is not subject to classification according to the latest version of the EU lists.

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Trade name: Sequential Extraction Reagent 1

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#### 12 Ecological Information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Generally not hazardous for water.
- Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

#### 13 Disposal considerations

- · 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.

UN-Number		
ADG, ADN, IMDG, IATA	Not Reguated	
UN proper shipping name		
ADG	Not Reguated	
	Not Reguated	
ADN, IMDG, IATA	Not Reguated	
Transport hazard class(es)		
ADG, ADN, IMDG, IATA		
Class	Not Reguated	
Packing group		
ADG, IMDG, IATA	Not Reguated	
Environmental hazards:		
Marine pollutant:	No	
Special precautions for user	Not applicable.	

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· Transport in bulk according to Annex II of Marpol and the **IBC Code** 

Not applicable.

· UN "Model Regulation":

Not Reguated

#### 15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Australian Inventory of Chemical Substances

Substance is listed.

Standard for the Uniform Scheduling of Medicines and Poisons

S4

· Australia: Priority Existing Chemicals

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

#### 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

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.





Printing date 20.08.2020 Revision: 20.08.2020

Not classified as hazardous according to criteria of Safe Work Australia.

#### 1 Identification

- · Product identifier
- · Trade name: Sequential Extraction Reagent 2
- · Article number: 1632103. 9703561
- · 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
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Bio-Rad Laboratories Pty. Ltd Level 5, 446 Victoria Road Gladesville NSW 2111

Australia

Tel 61-2-9914-2800 (1 800 224 354) Fax 61-2-9914-2888

- · Information department: sales.australia @bio-rad.com
- · Emergency telephone number: 61-2-9037-2994

#### 2 Hazard(s) Identification

· Classification of the substance or mixture

The product is not classified, according to the Globally Harmonised System (GHS).

- · Label elements
- · GHS label elements Not Applicable
- · Hazard pictograms Not Applicable
- · Signal word Not Applicable
- · Hazard statements Not Applicable
- · Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · **vPvB:** Not applicable.

#### 3 Composition and Information on Ingredients

- · 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.

#### 4 First Aid Measures

- · Description of first aid measures
- · General information No special measures required.

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## Safety Data Sheet according to WHS Regulations

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Trade name: Sequential Extraction Reagent 2

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- · 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.
- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

### 5 Fire Fighting Measures

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

#### 6 Accidental Release Measures

- · Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up: Pick up mechanically.
- · 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.

#### 7 Handling and Storage

- · Handling
- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special measures required.
- · 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.
- · Specific end use(s) No further relevant information available.

#### 8 Exposure controls and personal protection

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

(Contd. on page 3)





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Trade name: Sequential Extraction Reagent 2

(Contd. of page 2)

- · 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.
- · Exposure controls

· Relative density

Vapour density

- · Personal protective equipment
- · General protective and hygienic measures

The usual precautionary measures should be adhered to when handling chemicals.

· Protection of hands: Protective gloves.

9 Physical and Chemical Properties

- · Material of gloves Synthetic gloves
- · Penetration time of glove material

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

· Eye protection: Safety glasses

· Information on basic physical and chemical properties · General Information	
· 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 ra	ange: 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

Not determined.

Not applicable.

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Trade name: Sequential Extraction Reagent 2

	(C	ontd. of page 3)
· Evaporation rate	Not applicable.	
· Solubility in / Miscibility with Water at 20 °C:	800 g/l Fully miscible	
· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity: dynamic: kinematic:	Not applicable. Not applicable.	
· Solvent content: Water:	0.2 %	
Solids content:  Other information	99.7 % No further relevant information available.	

#### 10 Stability and Reactivity

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

#### 11 Toxicological Information

- · Information on toxicological effects
- · Acute toxicity
- · 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 No irritant effect.
- · Serious eye damage/irritation No irritating effect.
- · Respiratory or skin sensitisation No sensitising effects known.
- · Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

#### 12 Ecological Information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.

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# Safety Data Sheet according to WHS Regulations

Printing date 20.08.2020 Revision: 20.08.2020

Trade name: Sequential Extraction Reagent 2

(Contd. of page 4)

- · Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- 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.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

### 13 Disposal considerations

- · 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.

4 Transport information	
· UN-Number · ADG, ADN, IMDG, IATA	Not Reguated
· UN proper shipping name · ADG, ADN, IMDG, IATA	Not Reguated
· Transport hazard class(es)	
· ADG, ADN, IMDG, IATA · Class	Not Reguated
· Packing group · ADG, IMDG, IATA	Not Reguated
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of Ma IBC Code	rpol and the Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.

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Printing date 20.08.2020 Revision: 20.08.2020

Trade name: Sequential Extraction Reagent 2

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#### 15 Regulatory information

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

· Australian Inventory of Chemical Substances	
57-13-6	urea
77-86-1	Tris(hydroxymethyl)aminomethane
7732-18-5	water

Standard for the Uniform Scheduling of Medicines and Poisons

77-86-1 Tris(hydroxymethyl)aminomethane

S4

· Australia: Priority Existing Chemicals

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

#### 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

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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

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

· \* Data compared to the previous version altered.

ΔΙ





Printing date 20.08.2020 Revision: 29.07.2020

Hazardous according to criteria of Safe Work Australia.

#### 1 Identification

- · Product identifier
- · Trade name: ReadyPrep™ TBP Reducing Agent
- · Article number: 1632101, 1632101EDU
- · 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
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Bio-Rad Laboratories Pty. Ltd Level 5, 446 Victoria Road Gladesville NSW 2111

Australia

Tel 61-2-9914-2800 (1 800 224 354) Fax 61-2-9914-2888

- · Information department: sales.australia @bio-rad.com
- · Emergency telephone number: 61-2-9037-2994

#### 2 Hazard(s) Identification

· Classification of the substance or mixture

Acute Tox. 4 H302 Harmful if swallowed. Skin Irrit. 2 H315 Causes skin irritation.

Eye Dam. 1 H318 Causes serious eye damage.

Repr. 1B H360 May damage fertility or the unborn child.

STOT SE 3 H335 May cause respiratory irritation.

- · Label elements
- · GHS label elements The product is classified and labelled according to the Globally Harmonised System (GHS).
- · Hazard pictograms







GHS05 GHS07 GHS08

- · Signal word Danger
- · Hazard-determining components of labelling:

N-methyl-2-pyrrolidone tributylphosphine

· Hazard statements

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H360 May damage fertility or the unborn child.

(Contd. on page 2)





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Trade name: ReadyPrep™ TBP Reducing Agent

(Contd. of page 1)

H335 May cause respiratory irritation.

· Precautionary statements

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

to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see on this label).

P330 Rinse mouth.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable. · **vPvB**: Not applicable.

### 3 Composition and Information on Ingredients

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

•	Dangerous components:		
872-50-4	N-methyl-2-pyrrolidone	Repr. 1B, H360 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335 Flam. Liq. 4, H227; Acute Tox. 5, H303	50-100%
998-40-3	tributylphosphine	Flam. Liq. 3, H226; Self-heat. 1, H251 Ox. Liq. 2, H272 Acute Tox. 3, H301; Acute Tox. 3, H311 Skin Corr. 1B, H314; Eye Dam. 1, H318	3-<5%
· SVHC			

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

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

#### 4 First Aid Measures

- · Description of first aid measures
- General information

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- · After inhalation Supply fresh air; consult doctor in case of complaints.
- · After skin contact

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

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

Call for a doctor immediately.

Rinse mouth with water. Seek medical attention and appropriate follow-up.

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## Safety Data Sheet according to WHS Regulations

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Trade name: ReadyPrep™ TBP Reducing Agent

(Contd. of page 2)

- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

#### 5 Fire Fighting Measures

- · Extinguishing media
- · Suitable extinguishing agents Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

#### 6 Accidental Release Measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Wear protective clothing.

- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

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

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

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.

#### 7 Handling and Storage

- · Handling
- · Precautions for safe handling

No special measures required.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

- · Information about protection against explosions and fires: Keep respiratory protective device available.
- · 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: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

AU.





Printing date 20.08.2020 Revision: 29.07.2020

Trade name: ReadyPrep™ TBP Reducing Agent

(Contd. of page 3)

#### 8 Exposure controls and personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

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

WES Short-term value: 309 mg/m³, 75 ppm Long-term value: 103 mg/m³, 25 ppm

Sk

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment
- · General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the skin.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Not necessary if room is well-ventilated.

- · Protection of hands: Protective gloves.
- · Material of gloves Synthetic gloves
- Penetration time of glove material

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

· Eye protection:

Safety glasses

Tightly sealed goggles.

#### 9 Physical and Chemical Properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Fluid
Colour: Colourless
Odour: Amine-like
Odour threshold: Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/freezing point: -24 °C

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Trade name: ReadyPrep™ TBP Reducing Agent

	(Contd. of page
Initial boiling point and boiling range	: undetermined
Flash point:	Not applicable Not determined.
Flammability (solid, gaseous)	Not applicable.
lgnition temperature:	270 °C
Decomposition temperature:	Not determined.
Self igniting:	Product is not selfigniting.
Explosive properties:	Not determined.
Explosion limits: Lower: Upper:	1.3 Vol % 9.5 Vol %
Vapour pressure at 20 °C:	0.3 hPa
Density at 20°C: Relative density Vapour density Evaporation rate	1.013 g/cm³ Not determined. Not determined. Not determined.
Solubility in / Miscibility with Water:	Fully miscible
Partition coefficient: n-octanol/water:	Not determined.
Viscosity: dynamic: kinematic:	Not determined. Not determined.
Solvent content: Organic solvents: Other information	95.8 % No further relevant information available.

### 10 Stability and Reactivity

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



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## Safety Data Sheet according to WHS Regulations

Printing date 20.08.2020 Revision: 29.07.2020

Trade name: ReadyPrep™ TBP Reducing Agent

(Contd. of page 5)

### 11 Toxicological Information

- · Information on toxicological effects
- · Acute toxicity
- · 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 Irritant to skin and mucous membranes.
- · Serious eye damage/irritation

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

Irritating effect.

- · Respiratory or skin sensitisation No sensitising effects known.
- · Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Irritant

· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

Repr. 1B

#### 12 Ecological Information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · 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.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

#### 13 Disposal considerations

- · Waste treatment methods
- · Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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Trade name: ReadyPrep™ TBP Reducing Agent

(Contd. of page 6)

Dispose of waste in accordance to applicable national, regional, or local regulations.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

Transport information		
UN-Number		
ADG, ADN, IMDG, IATA	Not Reguated	
UN proper shipping name		
ADG	Not Reguated	
	Not Reguated	
ADN, IMDG, IATA	Not Reguated	
Transport hazard class(es)		
ADG, ADN, IMDG, IATA		
Class	Not Reguated	
Packing group		
ADG, IMDG, İATA	Not Reguated	
Environmental hazards:		
Marine pollutant:	No	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex II of I	Marpol and the	
IBC Code	Not applicable.	
UN "Model Regulation":	Not Reguated	

### 15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Australian Inventory of Chemical Substances

All ingredients are listed.

· Standard for the Uniform Scheduling of Medicines and Poisons

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

S5, S6

· Australia: Priority Existing Chemicals

None of the ingredients is listed.

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.

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## Safety Data Sheet according to WHS Regulations

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Trade name: ReadyPrep™ TBP Reducing Agent

(Contd. of page 7)

- · 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

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

#### 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.

#### · Relevant phrases

H226 Flammable liquid and vapour.

H227 Combustible liquid.

H251 Self-heating: may catch fire.

H272 May intensify fire; oxidiser.

H301 Toxic if swallowed.

H303 May be harmful if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H360 May damage fertility or the unborn child.

- · 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

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

VPVB. Very Fersistent and Very Bloaccumulative

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### Safety Data Sheet according to WHS Regulations

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#### Trade name: ReadyPrep™ TBP Reducing Agent

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. 4: Acute toxicity - oral – Category 4
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. 2A: Serious eye damage/eye irritation - Category 2A

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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Hazardous according to criteria of Safe Work Australia.

#### 1 Identification

- · Product identifier
- · Trade name: ReadyPrep Sequential Extraction Kit Reagent 3
- · Article number: 1632104, 9703562
- · 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
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Bio-Rad Laboratories Pty. Ltd Level 5, 446 Victoria Road Gladesville NSW 2111

Australia

Tel 61-2-9914-2800 (1 800 224 354) Fax 61-2-9914-2888

- · Information department: sales.australia @bio-rad.com
- · Emergency telephone number: 61-2-9037-2994

#### 2 Hazard(s) Identification

· Classification of the substance or mixture

Acute Tox. 5 H303 May be harmful if swallowed.
Acute Tox. 5 H333 May be harmful if inhaled.
Carc. 2 H351 Suspected of causing cancer.

Repr. 2 H361d Suspected of damaging the unborn child.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

- · Label elements
- · GHS label elements The product is classified and labelled according to the Globally Harmonised System (GHS).
- · Hazard pictograms





GHS08 GHS09

- · Signal word Warning
- · Hazard-determining components of labelling:

thiourea

1-(4-biphenylyloxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanol

· Hazard statements

H303 May be harmful if swallowed.

H333 May be harmful if inhaled.

H351 Suspected of causing cancer.

H361d Suspected of damaging the unborn child.

(Contd. on page 2)





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Trade name: ReadyPrep Sequential Extraction Kit Reagent 3

(Contd. of page 1)

H411 Toxic to aquatic life with long lasting effects.

· Precautionary statements

P273 Avoid release to the environment.

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

P304+P312 IF INHALED: Call a POISON CENTER/doctor if you feel unwell.

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

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.vPvB: Not applicable.

### 3 Composition and Information on Ingredients

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

· Dangerous	· Dangerous components:		
62-56-6	thiourea	25-35%	
	Carc. 2, H351; Repr. 2, H361 Aquatic Chronic 2, H411 Acute Tox. 4, H302 Acute Tox. 5, H313		
	1-(4-biphenylyloxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanol Acute Tox. 3, H331 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.

#### 4 First Aid Measures

- · 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.
- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

#### 5 Fire Fighting Measures

- · Extinguishing media
- · Suitable extinguishing agents Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.

(Contd. on page 3)



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## Safety Data Sheet according to WHS Regulations

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Trade name: ReadyPrep Sequential Extraction Kit Reagent 3

(Contd. of page 2)

- · Advice for firefighters
- · Protective equipment: No special measures required.

#### 6 Accidental Release Measures

- · Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- · Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

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

Dispose contaminated material as waste according to item 13.

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.

#### 7 Handling and Storage

- · Handling
- · Precautions for safe handling Open and handle receptacle with care.
- · Information about protection against explosions and fires: Keep respiratory protective device available.
- 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: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

#### 8 Exposure controls and personal protection

- Additional information about design of technical systems: No further data; see item 7.
- · 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.
- · Exposure controls
- · Personal protective equipment
- · General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

· Breathing equipment: Not necessary if room is well-ventilated.

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Trade name: ReadyPrep Sequential Extraction Kit Reagent 3

(Contd. of page 3)

- · Protection of hands: Protective gloves.
- · Material of gloves Synthetic gloves
- · Penetration time of glove material

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

· Eye protection: Safety glasses

Appearance: Forn: Forn: Colour: Dight yellow Odour threshold: Not determined.  PH-value: Not determined  Change in condition Melting point/freezing point: Initial boiling point and boiling range: Undetermined  Flash point: Flash point: Not applicable Not determined.  Flammability (solid, gaseous) Not applicable.  Ignition temperature: A40 °C  Decomposition temperature: Not determined.  Self igniting: Product is not selfigniting.  Explosive properties: Not determined.  Explosion limits: Lower: Upper: Not determined.  Vapour pressure: Not determined.  Density: Rot determined.  Density: Rot determined.  Solubility in / Miscibility with Water: Fully miscible  Partition coefficient: n-octanol/water: Not determined.	9 Physical and Chemical Propertie	es
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Explosive properties:  Not determined.  Explosion limits:  Lower:  Not determined.  Vapour pressure:  Not determined.  Density:  Not determined.  Relative density  Not determined.  Vapour density  Not determined.  Vapour density  Not determined.  Vapour density  Not determined.  Fully miscible  Partition coefficient: n-octanol/water:  Not determined.  Not determined.  Not determined.  Not determined.	· Decomposition temperature:	Not determined.
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<ul> <li>Vapour pressure: Not determined.</li> <li>Density: Not determined</li> <li>Relative density Not determined.</li> <li>Vapour density Not determined.</li> <li>Evaporation rate Not determined.</li> <li>Solubility in / Miscibility with Water: Fully miscible</li> <li>Partition coefficient: n-octanol/water: Not determined.</li> <li>Viscosity: Not determined.</li> </ul>		Not determined.
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<ul> <li>Vapour density         <ul> <li>Evaporation rate</li> <li>Not determined.</li> </ul> </li> <li>Solubility in / Miscibility with</li></ul>		
<ul> <li>Evaporation rate Not determined.</li> <li>Solubility in / Miscibility with Water: Fully miscible</li> <li>Partition coefficient: n-octanol/water: Not determined.</li> <li>Viscosity: Not determined.</li> <li>Not determined.</li> </ul>		Not determined.
Water: Fully miscible  Partition coefficient: n-octanol/water: Not determined.  Viscosity: dynamic: Not determined.		Not determined.
Partition coefficient: n-octanol/water: Not determined.  Viscosity: dynamic: Not determined.	· Solubility in / Miscibility with	
· Viscosity: dynamic: Not determined.		Fully miscible
dynamic: Not determined.	Partition coefficient: n-octanol/water:	Not determined.
dynamic: Not determined.	· Viscosity:	
	dynamic:	Not determined.
	kinematic:	Not determined.





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Trade name: ReadyPrep Sequential Extraction Kit Reagent 3

(Contd. of page 4)

· Solvent content: Water:	0.2 %
Solids content: Other information	99.7 % No further relevant information available.

#### 10 Stability and Reactivity

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

#### 11 Toxicological Information

- · Information on toxicological effects
- · Acute toxicity

· LD/LC5	· LD/LC50 values that are relevant for classification:		
57-13-6	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)	
. Primarı	. Primary irritant offect:		

- Primary irritant effect:
- · Skin corrosion/irritation No irritant effect.
- · Serious eye damage/irritation No irritating effect.
- · Respiratory or skin sensitisation No sensitising effects known.
- · Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

Carc. 2, Repr. 2

#### 12 Ecological Information

- Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.

(Contd. on page 6)





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Trade name: ReadyPrep Sequential Extraction Kit Reagent 3

(Contd. of page 5)

- · Ecotoxical effects:
- · Remark: Toxic for fish
- · 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.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

#### 13 Disposal considerations

- · 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.

Transport information	
· UN-Number · ADG, IMDG, IATA	UN2810
· UN proper shipping name · ADG · IMDG, IATA	2810 TOXIC LIQUID, ORGANIC, N.O.S. (thiourea, 1-(abiphenylyloxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2 butanol), ENVIRONMENTALLY HAZARDOUS 2810 TOXIC LIQUID, ORGANIC, N.O.S. (thiourea, ß-([1,3] biphenyl]-4-yloxy)-alpha-tert-butyl-1H-1,2,4-triazol-1-ethanol TOXIC LIQUID, ORGANIC, N.O.S. (thiourea, 1-(abiphenylyloxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2 butanol)
· Transport hazard class(es)	
· ADG, IMDG, IATA · Class · Label	6.1 Toxic substances. 6.1
· Packing group · ADG, IMDG, IATA	III
, ,	(Contd. on page

(Contd. on page 7





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	(Contd. of page
Environmental hazards:	
Marine pollutant:	No
Special marking (ADG):	Symbol (fish and tree)
Special precautions for user	Warning: Toxic substances.
Hazard identification number (Kemler code):	60
EMS Number:	F-A,S-A
Stowage Category	A
Stowage Code	SW2 Clear of living quarters.
Transport in bulk according to Annex II of Marpol a	nd the
IBC Code	Not applicable.
Transport/Additional information:	
ADG	
Limited quantities (LQ)	5L
Excepted quantities (ÉQ)	Code: E1
,	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
Transport category	2
Tunnel restriction code	E
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
· · ·	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (THIOUREA,
•	(4-BIPHENYLYLOXY)-3,3-DIMETHYL-1-(1H-1,2,
	TRIAZOL-1-YL)-2-BUTANOL), 6.1, III, ENVIRONMENTALI
	HAZARDOUS

### 15 Regulatory information

77-86-1 Tris(hydroxymethyl)aminomethane

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

· Australian Inventory of Chemical Substances		
57-13-6	G urea	
62-56-6	thiourea	
	? 1-(4-biphenylyloxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanol	
77-86-1	Tris(hydroxymethyl)aminomethane	
7732-18-5	water	
· Standard for the Uniform Scheduling of Medicines and Poisons		
62-56-6 th	iourea S4	1, S6

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· Australia: Priority Existing Chemicals

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 %
1	20-35

- · Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

#### 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.

· Relevant phrases

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H313 May be harmful in contact with skin.

H331 Toxic if inhaled.

H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child.

H411 Toxic to aquatic life with long lasting effects.

- 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

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

Carc. 2: Carcinogenicity - Category 2

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

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