

05.08.2020

### Kit components

Product code	Description
--------------	-------------

<b>1536160</b>	<b>Affi-Gel® Protein A MAPS™ II Buffers Kit</b>
----------------	---

#### Components:

9700774	Affi-Gel MAPS II Binding Buffer
9700775	MAPS™ Elution Buffer
1536166	Protein A MAPS II Regeneration Buffer

## Safety Data Sheet according to WHS Regulations

Printing date 05.08.2020

Revision: 05.08.2020

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

### 1 Identification

- **Product identifier**
- **Trade name:** Affi-Gel MAPS II Binding Buffer
- **Article number:** 9700774, 9700361
- **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.

(Contd. on page 2)

## Safety Data Sheet

### according to WHS Regulations

Printing date 05.08.2020

Revision: 05.08.2020

**Trade name: Affi-Gel MAPS II Binding Buffer**

(Contd. of page 1)

- **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.
- **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.
- **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.

(Contd. on page 3)

AU

## Safety Data Sheet

### according to WHS Regulations

Printing date 05.08.2020

Revision: 05.08.2020

Trade name: Affi-Gel MAPS II Binding Buffer

(Contd. of page 2)

- **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 through 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:** Not applicable.

#### · Change in condition

Melting point/freezing point:	undetermined
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 at 20 °C:** 1.12 g/cm<sup>3</sup>

· **Relative density** Not determined.

· **Vapour density** Not applicable.

· **Evaporation rate** Not applicable.

#### · Solubility in / Miscibility with

Water:	Fully miscible
--------	----------------

(Contd. on page 4)

## Safety Data Sheet

according to WHS Regulations

Printing date 05.08.2020

Revision: 05.08.2020

Trade name: Affi-Gel MAPS II Binding Buffer

(Contd. of page 3)

- **Partition coefficient: n-octanol/water:** Not determined.
- **Viscosity:**
  - dynamic:** Not applicable.
  - kinematic:** Not applicable.
- **Solvent content:**
- **Solids content:** 100.0 %
- **Other information** 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:**

#### 56-40-6 glycine

Oral	LD50	7,930 mg/kg (rat)
Dermal	LD50	5,200 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.
- **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 5)

## Safety Data Sheet

### according to WHS Regulations

Printing date 05.08.2020

Revision: 05.08.2020

Trade name: Affi-Gel MAPS II Binding Buffer

(Contd. of page 4)

- **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.

### 14 Transport information

- |  |                 |
|--|-----------------|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>ADG, ADN, IMDG, IATA</b></li> </ul>  | Not Reguated    |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>ADG</b></li> </ul>   | Not Reguated    |
| <ul style="list-style-type: none"> <li>· <b>ADN, IMDG, IATA</b></li> </ul>   | Not Reguated    |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>ADG, ADN, IMDG, IATA</b></li> <li>· <b>Class</b></li> </ul> | Not Reguated    |
| <ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>ADG, IMDG, IATA</b></li> </ul>   | Not Reguated    |
| <ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> </ul>                                | No              |
| <ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> </ul>  | Not applicable. |
| <ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b></li> </ul>                        | Not applicable. |
| <ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>  | Not Reguated    |

AU

(Contd. on page 6)

## Safety Data Sheet

### according to WHS Regulations

Printing date 05.08.2020

Revision: 05.08.2020

Trade name: Affi-Gel MAPS II Binding Buffer

(Contd. of page 5)

### 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**

None of the ingredients is listed.

· **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:** 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

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.**

# Safety Data Sheet

according to WHS Regulations

Printing date 05.08.2020

Revision: 05.08.2020

Hazardous according to criteria of Safe Work Australia.

## 1 Identification

- **Product identifier**
- **Trade name:** MAPS™ Elution Buffer
- **Article number:** 9700775, 9700362
- **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**  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
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**



GHS07

- **Signal word** Warning
- **Hazard statements**  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.
- **Precautionary statements**  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves / eye protection / face protection.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P405 Store locked up.

(Contd. on page 2)



## Safety Data Sheet

### according to WHS Regulations

Printing date 05.08.2020

Revision: 05.08.2020

**Trade name: MAPS™ Elution Buffer**

(Contd. of page 1)

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:**

77-92-9	citric acid	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	50-100%
6132-04-3	Citric acid, trisodium salt dihydrate	Eye Irrit. 2A, H319; STOT SE 3, H335	20-35%

- **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.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact**  
Generally the product does not irritate the skin.  
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. If symptoms persist, consult a doctor.
- **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:** Wear self-contained respiratory protective device.

### 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:**  
Dispose contaminated material as waste according to item 13.

(Contd. on page 3)

## Safety Data Sheet

### according to WHS Regulations

Printing date 05.08.2020

Revision: 05.08.2020

Trade name: MAPS™ Elution Buffer

(Contd. of page 2)

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.

- **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:** 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.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

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.

- **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

(Contd. on page 4)

## Safety Data Sheet

according to WHS Regulations

Printing date 05.08.2020

Revision: 05.08.2020

Trade name: MAPS™ Elution Buffer

Tightly sealed goggles.

(Contd. of page 3)

### 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: Not applicable.

##### · Change in condition

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

· Flash point: Not applicable  
Not determined.

· Flammability (solid, gaseous) Not determined.

· Ignition temperature: 1,010 °C

· 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: Fully miscible

· Partition coefficient: n-octanol/water: Not determined.

##### · Viscosity:

dynamic:	Not applicable.
kinematic:	Not applicable.

##### · Solvent content:

Solids content: 100.0 %

(Contd. on page 5)

## Safety Data Sheet

### according to WHS Regulations

Printing date 05.08.2020

Revision: 05.08.2020

Trade name: MAPS™ Elution Buffer

(Contd. of page 4)

· **Other information** 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:**

**77-92-9 citric acid**

Oral	LD50	6,730 mg/kg (rat)
------	------	-------------------

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** 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:  
Irritant

## 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.

AU

(Contd. on page 6)

## Safety Data Sheet

### according to WHS Regulations

Printing date 05.08.2020

Revision: 05.08.2020

Trade name: MAPS™ Elution Buffer

(Contd. of page 5)

### 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.

### 14 Transport information

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

None of the ingredients is listed.

- **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

(Contd. on page 7)

## Safety Data Sheet

### according to WHS Regulations

Printing date 05.08.2020

Revision: 05.08.2020

Trade name: MAPS™ Elution Buffer

(Contd. of page 6)

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

- **Relevant phrases**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

- **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

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

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

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

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

# Safety Data Sheet

according to WHS Regulations

Printing date 05.08.2020

Revision: 23.07.2020

Hazardous according to criteria of Safe Work Australia.

## 1 Identification

- **Product identifier**
- **Trade name:** Protein A MAPS II Regeneration Buffer
- **Article number:** 1536166, 9700703, 9700776
- **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**  
Flam. Liq. 2 H225 Highly flammable liquid and vapour.  
Acute Tox. 3 H331 Toxic if inhaled.  
STOT SE 1 H370 Causes damage to organs.
- **Label elements**
- **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS02 GHS06 GHS08

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
methanol
- **Hazard statements**  
H225 Highly flammable liquid and vapour.  
H331 Toxic if inhaled.  
H370 Causes damage to organs.
- **Precautionary statements**  
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P241 Use explosion-proof electrical/ventilating/lighting equipment.

(Contd. on page 2)



## Safety Data Sheet

### according to WHS Regulations

Printing date 05.08.2020

Revision: 23.07.2020

Trade name: Protein A MAPS II Regeneration Buffer

(Contd. of page 1)

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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:**

67-56-1	methanol	Flam. Liq. 2, H225 Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 STOT SE 1, H370	35-50%
---------	----------	---	--------

• **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.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

• **After inhalation**

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

• **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** 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**CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.• **Special hazards arising from the substance or mixture** During heating or in case of fire poisonous gases are produced.

(Contd. on page 3)



## Safety Data Sheet

according to WHS Regulations

Printing date 05.08.2020

Revision: 23.07.2020

**Trade name: Protein A MAPS II Regeneration Buffer**

(Contd. of page 2)

- **Advice for firefighters**
- **Protective equipment:**  
Mount respiratory protective device.  
Wear self-contained respiratory protective device.

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**  
Mount respiratory protective device.  
Wear protective equipment. Keep unprotected persons away.  
Wear protective clothing.
- **Environmental precautions:**  
Prevent seepage into sewage system, workpits and cellars.  
Dilute with plenty of water.  
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.  
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**  
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 ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

AU

(Contd. on page 4)

## Safety Data Sheet

### according to WHS Regulations

Printing date 05.08.2020

Revision: 23.07.2020

Trade name: Protein A MAPS II Regeneration Buffer

(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:**

### 67-56-1 methanol

WES	Short-term value: 328 mg/m <sup>3</sup> , 250 ppm
	Long-term value: 262 mg/m <sup>3</sup> , 200 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.

· **Breathing equipment:** 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 through 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: White

· **Odour:** Odourless

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point: undetermined

Initial boiling point and boiling range: 64 °C

· **Flash point:** < 23 °C

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

· **Ignition temperature:** 455 °C

(Contd. on page 5)

## Safety Data Sheet

### according to WHS Regulations

Printing date 05.08.2020

Revision: 23.07.2020

Trade name: Protein A MAPS II Regeneration Buffer

(Contd. of page 4)

· <b>Decomposition temperature:</b>	Not determined.
· <b>Self igniting:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Explosion limits:</b>	
Lower:	5.5 Vol %
Upper:	44 Vol %
· <b>Vapour pressure at 20 °C:</b>	128 hPa
· <b>Density at 20 °C:</b>	0.904 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>	Not miscible or difficult to mix
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
dynamic:	Not determined.
kinematic:	Not determined.
· <b>Solvent content:</b>	
Organic solvents:	40.0 %
Water:	60.0 %
· <b>Other information</b>	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:**

**67-56-1 methanol**

Oral	LD50	5,628 mg/kg (rat)
------	------	-------------------

(Contd. on page 6)

AU

## Safety Data Sheet

### according to WHS Regulations

Printing date 05.08.2020

Revision: 23.07.2020

**Trade name: Protein A MAPS II Regeneration Buffer**

(Contd. of page 5)

Dermal	LD50	20,000 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:**

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:

Toxic

## 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.
- **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** 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.

## 14 Transport information

- |                                  |                        |
|----------------------------------|------------------------|
| · <b>UN-Number</b>               |                        |
| · <b>ADG, IMDG, IATA</b>         | UN1230                 |
| · <b>UN proper shipping name</b> |                        |
| · <b>ADG</b>                     | 1230 METHANOL solution |
|                                  | 1230 METHANOL solution |
| · <b>IMDG, IATA</b>              | METHANOL solution      |

(Contd. on page 7)

## Safety Data Sheet

according to WHS Regulations

Printing date 05.08.2020

Revision: 23.07.2020

Trade name: Protein A MAPS II Regeneration Buffer

(Contd. of page 6)

· <b>Transport hazard class(es)</b>	
· <b>ADG</b>	
· <b>Class</b>	3 Flammable liquids.
· <b>Label</b>	3+6.1
· <b>IMDG</b>	
· <b>Class</b>	3 Flammable liquids.
· <b>Label</b>	3/6.1
· <b>IATA</b>	
· <b>Class</b>	3 Flammable liquids.
· <b>Label</b>	3 (6.1)
· <b>Packing group</b>	
· <b>ADG, IMDG, IATA</b>	II
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b>	Warning: Flammable liquids.
· <b>Hazard identification number (Kemler code):</b>	336
· <b>EMS Number:</b>	F-E, S-D
· <b>Stowage Category</b>	B
· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	D/E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 1230 METHANOL SOLUTION, 3 (6.1), II

### 15 Regulatory information

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

· **Australian Inventory of Chemical Substances**

All ingredients are listed.

(Contd. on page 8)

## Safety Data Sheet

### according to WHS Regulations

Printing date 05.08.2020

Revision: 23.07.2020

**Trade name: Protein A MAPS II Regeneration Buffer**

(Contd. of page 7)

**Standard for the Uniform Scheduling of Medicines and Poisons**

67-56-1 | methanol

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.

**Seveso category**

H2 ACUTE TOXIC

P5c FLAMMABLE LIQUIDS

**Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t

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

**National regulations**
**Technical instructions (air):**

Class	Share in %
I	35-50

**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.

**Relevant phrases**

H225 Highly flammable liquid and vapour.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H331 Toxic if inhaled.

H370 Causes damage to organs.

**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

Flam. Liq. 2: Flammable liquids – Category 2

(Contd. on page 9)

**Safety Data Sheet**  
according to WHS Regulations

Printing date 05.08.2020

Revision: 23.07.2020

**Trade name: Protein A MAPS II Regeneration Buffer**

(Contd. of page 8)

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

STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

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

AU