

03.08.2020 Kit components

Product code	Description	
1721063	Alkaline Phosphatase Substrate Kit	
Components:		
9701241	p-nitrophenyl-phosphate substrate tablets	
9701861	5X AP Diethanolamine Buffer	

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Safety Data Sheet according to WHS Regulations

Printing date 03.08.2020 Revision: 22.07.2020

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

1 Identification

- · Product identifier
- · Trade name: p-nitrophenyl-phosphate substrate tablets
- · Article number: 9701241, 9701160
- **CAS Number:** 4264-83-9
- **EC number:** 224-246-5
- · 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:

4264-83-9 disodium 4-nitrophenyl phosphate

- · Identification number(s):
- · EC number: 224-246-5

(Contd. on page 2)





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Trade name: p-nitrophenyl-phosphate substrate tablets

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

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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: 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.

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

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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 cl General Information Appearance: 		
Form:	Solid.	
Colour:	White	
· Odour:	Odourless	
· Odour threshold:	Not determined.	
· pH-value:	Not applicable.	
· Change in condition Melting point/freezing point: Initial boiling point and boiling ran	undetermined ge: undetermined	
· 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: p-nitrophenyl-phosphate substrate tablets

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· 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.
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
- 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.

12 Ecological Information

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

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Trade name: p-nitrophenyl-phosphate substrate tablets

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- · 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.

JN-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, IMĎG, İATA	Not Reguated
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of Marpol a	and the
IBC Code	Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.





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Trade name: p-nitrophenyl-phosphate substrate tablets

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· 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

Substance is not listed.

· 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: 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

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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· * Data compared to the previous version altered.

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Printing date 03.08.2020 Revision: 22.07.2020

Hazardous according to criteria of Safe Work Australia.

1 Identification

- · Product identifier
- · Trade name: 5X AP Diethanolamine Buffer
- · Article number: 9701861
- · 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.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Dam. 1 H318 Causes serious eye damage. STOT SE 3 H335 May cause respiratory irritation.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

- · 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:

2,2'-iminodiethanol

· Hazard statements

H303 May be harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

(Contd. on page 2)





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Trade name: 5X AP Diethanolamine Buffer

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· 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).

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:

· 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

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 Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture During heating or in case of fire poisonous gases are produced.
- · Advice for firefighters
- · Protective equipment:

Mount respiratory protective device.

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Trade name: 5X AP Diethanolamine Buffer

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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:

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).

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

Ensure good ventilation/exhaustion at the workplace.

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.

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.

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Trade name: 5X AP Diethanolamine Buffer

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- · 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 Ph	vsical	and	Chemica	al Pro	perties
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· General Information

· Appearance:

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

• pH-value: Not determined.

· Change in condition

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

· Flash point: Not applicable Not determined.

· Flammability (solid, gaseous) Not applicable.

· Ignition temperature: 370 °C

· Decomposition temperature: Not determined.

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

· Explosive properties: Not determined.

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Trade name: 5X AP Diethanolamine Buffer

	(Contd. of page
· Explosion limits:	
Lower:	2.1 Vol %
Upper:	10.6 Vol %
· Vapour pressure at 20 °C:	23 hPa
· Density at 20 °C:	1.04535 g/cm³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Fully miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	52.6 %
Water:	47.4 %
· 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:

111-42-2 2,2'-iminodiethanol

Oral LD50 710 mg/kg (rat)
Dermal LD50 12,200 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.

(Contd. on page 6)





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Trade name: 5X AP Diethanolamine Buffer

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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:

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.

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

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· ADG, ADN, IMDG, IATA Not Reguated

· UN proper shipping name

· ADG Not Reguated

Not Reguated
• ADN, IMDG, IATA
Not Requated

(Contd. on page 7)





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Trade name: 5X AP Diethanolamine Buffer

		(Contd. of page 6)
· 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	r pol and the 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

111-42-2 2,2'-iminodiethanol

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.
- · National regulations
- · Technical instructions (air):

Class	Share in %
NK	50-100

- · 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

H302 Harmful if swallowed. H315 Causes skin irritation.

H318 Causes serious eye damage.

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Safety Data Sheet according to WHS Regulations

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Trade name: 5X AP Diethanolamine Buffer

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H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

- · 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 - oral - Category 5

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

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

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

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

* Data compared to the previous version altered.

ΑU