

# pH 4.0 Calibration Solution

## Safety Data Sheet

Bluelab Limited, 43 Burrows Street, PO Box 949, Tauranga, New Zealand ph +64 7 578 0849 fax +64 7 578 0847 www.getbluelab.com



### 1. Identification of Substance & Company

<b>Product</b>	
<b>Product name</b>	pH 4.0 Calibration Solution
<b>Other names</b>	pH 4.0 Calibration Solution 20mL sachet pH 4.0 Calibration Solution 250mL bottle pH 4.0 Calibration Solution 500mL bottle
<b>Product code</b>	Not assigned
<b>HSNO approval</b>	Not applicable – non hazardous
<b>UN number</b>	Not assigned
<b>Packaging group</b>	Not applicable
<b>Hazchem code</b>	1T
<b>Poison schedule</b>	Not applicable
<b>Uses</b>	Laboratory agent
<b>Company Details</b>	
<b>Company</b>	<b>Bluelab Corporation Limited</b>
<b>Address</b>	43 Burrows Street P.O. Box 949 Tauranga 3140 New Zealand
<b>Telephone</b>	+64 7 578 0849
<b>Fax</b>	+64 7 578 0847
<b>Website</b>	www.getbluelab.com

### 2. Hazard Identification

#### Hazard Classifications

This product has been assessed as non hazardous according to the criteria of the GHS.

See section 15 – Regulatory Information for further information.

No risk and safety phrases are known to apply.

#### SYMBOLS

none

#### Other Classifications

There are no other classifications that are known to apply.

### 3. Composition / Information on Ingredients

Component	CAS/ Identification	Class for ingredient(s)	Conc (% w/w)
Phthalate salt	Proprietary	Estimate: 6.1D, 6.3A, 6.4A	<5%
Preservative	Proprietary	6.1D, 8.2C, 8.3A, 9.1D, 9.3C	<1%
Colouring agent	Proprietary	Non hazardous	<1%
Water	7732-18-5	non hazardous	80 – 100%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

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### 4. First Aid

#### General Information

You should seek medical advice, if you feel that you may have been poisoned, burned or irritated by this product.

If medical advice is needed, have this MSDS, product container or label at hand.

#### Recommended first aid facilities

Ready access to running water is required. Accessible eyewash is recommended. Emergency shower, hand wash, soap. CPR training, oxygen mask.

#### Exposure

##### Swallowed

IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. Contact a doctor if you feel unwell.

##### Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart.

##### Skin contact

If skin irritation occurs: get medical advice/attention.

##### Inhaled

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

#### Advice to Doctor

Treat symptomatically

### 5. Firefighting Measures

#### Fire and explosion hazards:

There are no specific risks for fire/explosion for this chemical. It is non-flammable.

#### Suitable extinguishing substances:

Carbon dioxide, extinguishing powder, foam, fog sprays, water jets.

#### Unsuitable extinguishing substances:

Unknown.

#### Products of combustion:

Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.

#### Protective equipment:

Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.

#### Hazchem code:

1T

### 6. Accidental Release Measures

#### Emergency procedures

In the event of spillage alert the fire brigade to location and give brief description of hazard.

Wear protective equipment to prevent skin, eye and respiratory exposure.

Clear area of any unprotected personnel.

Contain using sand, earth or vermiculite.

Prevent by whatever means possible any spillage from entering drains, sewers, or water courses.

#### Clean-up method

Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

#### Disposal

Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.

#### Precautions

Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

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## 7. Storage & Handling

<b>Storage</b>	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10.
<b>Handling</b>	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

## 8. Exposure Controls / Personal Protective Equipment

### Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by the NZ Department of Labour for this product. There is a general limit of 10mg/m<sup>3</sup> for dusts and mists when limits have not otherwise been established.

NZ Workplace Exposure Stds (OSH 2002)	Ingredient	WES-TWA	WES-STEL
	Phthalate salt	Data unavailable	Data unavailable
	Indicator	Data unavailable	Data unavailable
	Colouring agent	Data unavailable	Data unavailable

### Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety in Employment Act 1992 (HSE). Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

### Personal Protective Equipment

<b>Eyes</b>	Protective eyewear is not normally necessary when using this product. However, it is always prudent to use protective eyewear if splashes are likely.
<b>Skin</b>	If discomfort is felt (e.g., if pre-existing conditions exist, such as dermatitis, cuts or sensitive skin), gloves may be helpful. If you suffer from dermatitis type skin conditions, use gloves.
<b>Respiratory</b>	A respirator when airborne concentrations approach the WES (section 8) should be used. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

### WES Additional Information

Not applicable

## 9. Physical & Chemical Properties

<b>Appearance</b>	Red coloured liquid
<b>Odour</b>	No odour
<b>pH</b>	4.0 @ 25°C
<b>Vapour pressure</b>	Not available
<b>Viscosity</b>	Like water
<b>Boiling point</b>	~100°C
<b>Volatile materials</b>	Not applicable
<b>Freezing / melting point</b>	Not available
<b>Solubility</b>	Completely water soluble
<b>Specific gravity / density</b>	~1.0 g/mL
<b>Flash point</b>	Non flammable
<b>Danger of explosion</b>	Not explosive
<b>Auto-ignition temperature</b>	Non flammable
<b>Upper and lower flammable limits</b>	Non flammable
<b>Corrosiveness</b>	Non corrosive to metals

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## 10. Stability & Reactivity

<b>Stability</b>	This product is unlikely to react or decompose under normal storage conditions. This product will not undergo polymerisation reactions.
<b>Conditions to be avoided</b>	Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames.
<b>Incompatible groups</b>	Strong oxidisers, strong acids, strong bases
<b>Substance Specific Incompatibility</b>	There are no specific incompatibilities for this chemical.
<b>Hazardous decomposition products</b>	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen, and under some circumstances, oxides of nitrogen, water.
<b>Hazardous reactions</b>	No specific hazards.

## 11. Toxicological Information

### Summary

No specific data is available for this product. Where available, toxicological data has been researched and data for the mixture calculated. The results of these calculations are presented below. The product is considered to have the following toxicity:

### Supporting Data

<b>Acute</b>	<b>Oral</b>	No data for mixture is available. Using LD <sub>50</sub> 's for ingredients, the calculated LD <sub>50</sub> (oral, rat) for the mixture is > 5,000 mg/kg. Data considered includes: Phthalate salt: >3200mg/kg (rat), Indicator: 880 mg/kg (guinea pig), Colouring agent: no data.
	<b>Dermal</b>	No data for mixture is available. Using LD <sub>50</sub> 's for ingredients, the estimated LD <sub>50</sub> (dermal, rat) for the mixture is >2,000 mg/kg. data considered includes: Phthalate salts: >1000mg/kg (guinea pig), Indicator: no data, Colouring agent: no data.
	<b>Inhaled</b>	No data for mixture is available. Using LC <sub>50</sub> 's for ingredients, the estimated LC <sub>50</sub> (inhalation, rat) for the mixture is >5,000 ppm. Data considered includes: Potassium Hydrogen Phthalate: no data, Indicator: no data, Colouring agent: no data.
	<b>Eye</b>	The mixture is not considered to be irritating to the eye, because none the ingredients, present at >10% is considered to be eye irritants in more concentrated form.
	<b>Skin</b>	The mixture is not considered to be irritating to the skin, because none of the ingredients present at >10% are considered to be skin irritants in more concentrated form.
<b>Chronic</b>	<b>Sensitisation</b>	The mixture is not considered to be a sensitizer, because none of the ingredients present in greater than 0.1% are known to be sensitizers.
	<b>Mutagenicity</b>	No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a mutagen.
	<b>Carcinogenicity</b>	No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a carcinogen.
	<b>Reproductive / Developmental</b>	No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	<b>Systemic</b>	The mixture is not considered to be a target organ toxicant, because none of the ingredients present in greater than 1% are suspected to be a target organ toxicant.
	<b>Aggravation of existing conditions</b>	None known.

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## 12. Ecological Data

### Summary

No specific data is available for this product. Where available, ecotoxicological data has been researched and data for the mixture calculated. The results of these calculations are presented below. The product is considered to have the following ecotoxicity groups:

### Supporting Data

#### Aquatic

No data for mixture is available. Using EC<sub>50</sub>'s for ingredients, the estimated EC<sub>50</sub> for the mixture is > 100 mg/L. Data considered includes: Potassium Hydrogen Phthalate: no data, Indicator: no data, Colouring agent: no data.

#### Bioaccumulation

This product is biodegradable.

#### Degradability

It will not accumulate in the soil or water or cause long term problems.

#### Soil

No data available for the mixture. This product is not classified as ecotoxic in the soil environment. The soil toxicity value for the mixture is estimated to be  $\geq$  100 mg/kg.

#### Terrestrial vertebrate

This product is not considered harmful to terrestrial vertebrates. No LC<sub>50</sub> (diet) data for ingredients are available and the classification is based on the LD<sub>50</sub> (oral) – see section 11 – oral toxicity.

#### Terrestrial invertebrate

The mixture is not considered harmful to terrestrial invertebrates.

#### Biocidal

Not applicable

#### Environmental effect levels:

#### Ingredients

Potassium Hydrogen Phthalate

Indicator

Colouring agent

#### EEL

Data unavailable

Data unavailable

Data unavailable

## 13. Disposal Considerations

### Restrictions

There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.

### Disposal method

Disposal of this product must comply with the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.

### Contaminated packaging

Rinse containers with water before disposal. Preferably re-cycle container, otherwise send to landfill or similar.

## 14. Transport Information

Not regulated for transport of dangerous goods: UN, IATA, IMDG.

**UN number:** Not assigned

**Proper shipping name:**

Not applicable

**Class(es)** Not applicable

**Packing group:**

Not applicable

**Precautions:** Not applicable

**Hazchem code:**

1T

## 15. Regulatory Information

### NEW ZEALAND:

Not considered a hazardous substance according to the criteria of the New Zealand Hazardous Substances and New Organisms Act (HSNO) legislation. No hazard and precautionary phrases apply.

### Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix)

Key workplace requirements are:

MSDS	Not required
Labelling	Not required.
Emergency plan	Not required.
Approved handler/Tracking	Not required.
Signage	Not required.
Test certificate	Not required.

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### Other Legislation

#### AUSTRALIA:

Non-hazardous substance. Non dangerous goods according to the criteria of NOHSC and the ADG code.

#### US:

Not considered a hazardous substance according to OSHA 29 CFR 1910.1200.

#### EU:

Not considered a dangerous substance according to directive 1999/45/EC and its amendments.  
The ingredients of this substance are not listed in the Annex I of Regulation (EC) No 689/2008.

## 16. Other Information

### Abbreviations

<b>ADG</b>	Australian Dangerous Goods code (Australia)
<b>Approval Code</b>	Not applicable.
<b>CAS Number</b>	Unique Chemical Abstracts Service Registry Number
<b>Controls Matrix</b>	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
<b>EC<sub>50</sub></b>	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species).
<b>ERMA</b>	Environmental Risk Management Authority
<b>HAZCHEM Code</b>	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
<b>HSNO</b>	Hazardous Substances and New Organisms (Act and Regulations)
<b>IARC</b>	International Agency for Research on Cancer
<b>IATA</b>	International Air Transport Association
<b>IMDG</b>	International Maritime Dangerous Goods
<b>LD<sub>50</sub></b>	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
<b>LC<sub>50</sub></b>	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats).
<b>MSDS</b>	Material Safety Data Sheet (or Safety Data Sheet)
<b>NOHSC</b>	National Occupational Health & Safety Commission (Australia)
<b>OSH</b>	The Occupational Safety and Health Service of the Department of Labour (NZ)
<b>OSHA</b>	Occupational Safety and Health Administration (USA)
<b>UN Number</b>	United Nations Number
<b>WES</b>	Workplace Exposure Standard

### References

#### Data

Unless otherwise stated comes from the ERMA HSNO chemical classification information database (CCID) <http://www.ermanz.govt.nz/hs/compliance/chemicals.html> , for specific chemicals.

#### ERMA Transfer Gazettes

Classifications and controls assigned for specific ingredients (consolidated gazette, 2004)

#### Controls Matrix

Part of the ERMA New Zealand User Guide to the HSNO Control Regulations

#### WES 2002

The NZ Workplace Exposure Standards Effective from 2002, published by OSH and available on their web site – [www.osh.dol.govt.nz](http://www.osh.dol.govt.nz).

#### Other References:

ChemIDplus – United States National Library of Medicine

#### Disclaimer

This MSDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The MSDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the MSDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications, are based on our experience, ERMA Guidelines and international classifications. This MSDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the MSDS author, email [info@datachem.co.nz](mailto:info@datachem.co.nz) or phone: **+64 9 940 30 80**.

