

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

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

Inhaled

If skin irritation occurs: get medical advice/attention.

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

Storage	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.
Handling	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/m³ 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

Eyes	Protective eyewear is not normally necessary when using this product. However, it is always prudent to use protective eyewear if splashes are likely.
Skin	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.
Respiratory	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

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

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10. Stability & Reactivity

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

Acute	Oral	No data for mixture is available. Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (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.
	Dermal	No data for mixture is available. Using LD ₅₀ 's for ingredients, the estimated LD ₅₀ (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.
	Inhaled	No data for mixture is available. Using LC ₅₀ 's for ingredients, the estimated LC ₅₀ (inhalation, rat) for the mixture is >5,000 ppm. Data considered includes: Potassium Hydrogen Phthalate: no data, Indicator: no data, Colouring agent: no data.
	Eye	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.
	Skin	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.
Chronic	Sensitisation	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.
	Mutagenicity	No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental	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.
	Systemic	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.
	Aggravation of existing conditions	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 EC₅₀'s for ingredients, the estimated EC₅₀ 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 ≥ 100 mg/kg.

Terrestrial vertebrate

This product is not considered harmful to terrestrial vertebrates. No LC₅₀ (diet) data for ingredients are available and the classification is based on the LD₅₀ (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

ADG

Australian Dangerous Goods code (Australia)

Approval Code

Not applicable.

CAS Number

Unique Chemical Abstracts Service Registry Number

Controls Matrix

List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).

EC₅₀

Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species).

ERMA

Environmental Risk Management Authority

HAZCHEM Code

Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters

HSNO

Hazardous Substances and New Organisms (Act and Regulations)

IARC

International Agency for Research on Cancer

IATA

International Air Transport Association

IMDG

International Maritime Dangerous Goods

LD₅₀

Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).

LC₅₀

Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats).

MSDS

Material Safety Data Sheet (or Safety Data Sheet)

NOHSC

National Occupational Health & Safety Commission (Australia)

OSH

The Occupational Safety and Health Service of the Department of Labour (NZ)

OSHA

Occupational Safety and Health Administration (USA)

UN Number

United Nations Number

WES

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.

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 or phone: **+64 9 940 30 80**.

