

Australian statement of hazardous nature : Classified as hazardous according to criteria of Safe Work Australia

## Section 1 - Identification

**Product Name** Buffer pH 10.0 colour coded blue

<b>Product Code</b>	<b>AJA2564, ACR25860, BSPA99, FNNBUF10, FSH06-664, HAC22836, HACLZW9471, HANHI7010, ROA3307</b>
<b>Address</b>	ThermoFisher Scientific Australia Pty Ltd 5 Caribbean Drive, Scoresby VICTORIA 3179, Australia
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**Recommended Use** Laboratory chemicals.

## Section 2 - Hazard(s) Identification

### Classification under Safe Work Australia

Classified as hazardous according to criteria of Safe Work Australia

#### Physical hazards

No hazards identified

#### Health hazards

Skin Corrosion/irritation  
Serious Eye Damage/Eye Irritation  
Reproductive Toxicity

Category 2  
Category 2  
Category 1B

#### Environmental hazards

No hazards identified

### Label Elements



Health Hazard



Exclamation Mark

**Signal Word**

**Danger**

**Hazard Statements**

H315 - Causes skin irritation  
 H319 - Causes serious eye irritation  
 H360 - May damage fertility or the unborn child

**Precautionary Statements**

P201 - Obtain special instructions before use  
 P202 - Do not handle until all safety precautions have been read and understood  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P280 - Wear eye protection/ face protection  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P308 + P313 - IF exposed or concerned: Get medical advice/ attention  
 P332 + P313 - If skin irritation occurs: Get medical advice/ attention  
 P362 - Take off contaminated clothing and wash before reuse  
 P403 - Store in a well-ventilated place  
 P501 - Dispose of contents/ container to an approved waste disposal plant

**Other information**

No information available

## Section 3 - Composition and Information on Ingredients

Component	CAS-No	Weight %
Water	7732-18-5	>60
Borates, tetra, sodium salts, decahydrate	1303-96-4	<10
Sodium hydroxide	1310-73-2	<1
C.I. Acid blue 9, disodium salt	3844-45-9	<0.0005

## Section 4 - First Aid Measures

<b>Inhalation</b>	Move to fresh air. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Self-Protection of the First Aider</b>	No special precautions required.
<b>First Aid Facilities</b>	Eyewash, safety shower and washroom.
<b>Most important symptoms and effects</b>	None reasonably foreseeable.
<b>Notes to Physician</b>	Treat symptomatically.

## Section 5 - Fire Fighting Measures

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Extinguishing media which must not be used for safety reasons**

No information available.

**Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors.

**Special protective equipment and precautions for fire fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**Section 6 - Accidental Release Measures****Emergency procedures**

Ensure adequate ventilation. Use personal protective equipment.

**Environmental Precautions**

Should not be released into the environment. See Section 12 for additional ecological information.

**Methods for Containment and Clean Up**

Sweep up or vacuum up spillage and collect in suitable container for disposal.

**Reference to Other Sections**

Refer to protective measures listed in Sections 8 and 13.

**Section 7 - Handling and Storage****Precautions for Safe Handling**

Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation.

**Conditions for Safe Storage, Including any Incompatibilities**

Keep containers tightly closed in a dry, cool and well-ventilated place.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

**Section 8 - Exposure Controls and Personal Protection****Exposure limits**

**AUS** - Exposure Standards for Atmospheric Contaminants in the Occupational Environment - Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:3008(1995)] Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)] updated in August, 2005. Safe Work Australia **ACGIH** - Threshold Limit Values - Ceiling (TLV-C) guidelines by the American Conference of Governmental Industrial Hygienists (ACGIH) for controlling worker exposure to airborne chemical concentrations in the workplace. **UK** - EH40/2005 Containing the workplace exposure limits (WELs) for use with the Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended). Updated by September 2006 official press release and October 2007 Supplement. **DE** - MAK and BAT values of Hazardous Chemical Compounds in the Work Area. Published by German Research Foundation on July 1, 2011

Component	Australia	New Zealand WEL	ACGIH TLV	The United Kingdom	Germany
Borates, tetra, sodium salts, decahydrate	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>	STEL: 15 mg/m <sup>3</sup> 15 min TWA: 5 mg/m <sup>3</sup> 8 hr	
Sodium hydroxide	2 mg/m <sup>3</sup> TWA	Ceiling: 2 mg/m <sup>3</sup>	Ceiling: 2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup> STEL	2 mg/m <sup>3</sup> TWA (inhalable fraction)

**Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

**Exposure Controls****Engineering Measures**

None under normal use conditions. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal protective equipment****Eye Protection**

Goggles (Australian/New Zealand Standard AS/NZS 1337 - Eye protectors for Industrial applications)

**Hand Protection**

Protective gloves

Glove material	Breakthrough time	Glove thickness	AUS/NZ Standard	Glove comments
Natural rubber	See manufacturers recommendations	-	AS/NZS 2161.1	(minimum requirement)
Nitrile rubber				
Neoprene				
PVC				

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Skin and body protection**

Long sleeved clothing

**Respiratory Protection**

Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use and maintenance of respiratory protective devices

**Recommended Filter type:**

Particle filter (or AUS/NZ equivalent)

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls**

No information available.

## Section 9 - Physical and Chemical Properties

**Information on basic physical and chemical properties**

<b>Appearance</b>	Blue	
<b>Physical State</b>	Liquid	
<b>Odor</b>	No information available	
<b>Odor Threshold</b>	No data available	
<b>pH</b>	10	
<b>Melting Point/Range</b>	No data available	
<b>Softening Point</b>	No data available	
<b>Boiling Point/Range</b>	100 °C / 212 °F	
<b>Flash Point</b>	Not applicable	<b>Method -</b> No information available
<b>Evaporation Rate</b>	No data available	
<b>Flammability (solid,gas)</b>	Not applicable	Liquid
<b>Explosion Limits</b>	No data available	
<b>Vapor Pressure</b>	No data available	
<b>Vapor Density</b>	No data available	(Air = 1.0)
<b>Specific Gravity / Density</b>	No data available	
<b>Bulk Density</b>	Not applicable	Liquid
<b>Water Solubility</b>	Soluble in water	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Component</b>	<b>log Pow</b>	
Borates, tetra, sodium salts, decahydrate	- 0.757	

<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive Properties</b>	No information available
<b>Oxidizing Properties</b>	No information available

**Other information****Section 10 - Stability and Reactivity**

**Reactivity** None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Incompatible products, Excess heat.

**Hazardous Decomposition Products** None under normal use conditions.

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Section 11 - Toxicological Information****Information on Toxicological Effects****Product Information****(a) acute toxicity;****Oral**

Based on available data, the classification criteria are not met

**Dermal**

Based on available data, the classification criteria are not met

**Inhalation**

Based on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	LD50 > 90 mL/kg ( Rat )		
Borates, tetra, sodium salts, decahydrate	5660 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	2.03 mg/l (Rat)
Sodium hydroxide	LD50 140 - 340 mg/kg ( Rat )	LD50 = 1350 mg/kg ( Rabbit )	
C.I. Acid blue 9, disodium salt	LD50 > 2 g/kg ( Rat )		

**(b) skin corrosion/irritation;** Category 2

**(c) serious eye damage/irritation;** Category 2

**(d) respiratory or skin sensitization;**

**Respiratory**

No data available

**Skin**

No data available

Component	Test method	Test species	Study result
Borates, tetra, sodium salts, decahydrate 1303-96-4 (<10 )	OECD Test Guideline 406	guinea pig	- - non-sensitising

**(e) germ cell mutagenicity;** No data available

**(f) carcinogenicity;** No data available

**(g) reproductive toxicity;** There are no known carcinogenic chemicals in this product

**(h) STOT-single exposure;** Category 1B

No data available

(i) STOT-repeated exposure; No data available

Target Organs None known.  
 (j) aspiration hazard; No data available

Symptoms / effects, both acute and delayed No information available

## Section 12 - Ecological Information

### Ecotoxicity effects

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Borates, tetra, sodium salts, decahydrate	340 mg/L LC50 96 h 708 mg/l LC50 96 h (Pimephales promelas)	1085 - 1402 mg/L LC50 48 h	2.6-21.8 mg/L EC50 96h 158 mg/L EC50 = 96h	-
Sodium hydroxide	LC50: = 45.4 mg/L, 96h static (Oncorhynchus mykiss)	-	-	-

### Persistence and Degradability

**Persistence** Soluble in water, Persistence is unlikely, based on information available.

**Bioaccumulative Potential** Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Borates, tetra, sodium salts, decahydrate	- 0.757	No data available

**Mobility** The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility Highly mobile in soils

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors

**Persistent Organic Pollutant** This product does not contain any known or suspected substance

**Ozone Depletion Potential** This product does not contain any known or suspected substance

## Section 13 - Disposal Considerations

**Waste from Residues / Unused Products** Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations.

**Contaminated Packaging** Dispose of this container to hazardous or special waste collection point.

**Other Information** Chemical wastes should be disposed through a licensed commercial waste collection service. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains.

## Section 14 - Transport Information

**IMDG/IMO** Not regulated

**ADG** Not regulated

Component	Hazchem Code
Sodium hydroxide 1310-73-2 (<1)	2W 2R

**IATA** Not regulated

**Environmental hazards** No hazards identified

**Special Precautions** No special precautions required

**Additional information** None known

## Section 15 - Regulatory Information

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

**International Inventories** X = listed

Component	AICS	NZIoC	EINECS	ELINCS	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	KECL
Water	X	X	231-791-2	-	X	X	-	X	-	X	X
Borates, tetra, sodium salts, decahydrate	X	X	215-540-4	-	X	X	-	X	X	X	X
Sodium hydroxide	X	X	215-185-5	-	X	X	-	X	X	X	X
C.I. Acid blue 9, disodium salt	X	X	223-339-8	-	X	X	-	X	X	X	X

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

Component	Standard for the Uniform Scheduling of Medicines and Poisons	Health Surveillance
Borates, tetra, sodium salts, decahydrate	Schedule 4 listed - for human therapeutic use except in preparations for internal use containing <=6 mg Boron per recommended daily dose; in preparations for dermal use containing <=0.35% of Boron, which are not for paediatric or antifungal use; or when present as an excipient Schedule 5 listed - except: [a] when included in Schedule 4, [b] in preparations, other than insect baits, containing <=1% of Boron, [c] in hand cleaning preparations	
Sodium hydroxide	Schedule 5 listed - except its salts and derivatives; in preparations being: solid preparations the PH of which in a 10 g/L aqueous solution is >11.5; liquid or semi-solid preparations the PH of which is >11.5 except in food additive preparations for domestic use Schedule 6 listed - except its salts and derivatives; except: [a] when included in Schedule 5 or Schedule 10, [b] in preparations containing <=5% of Sodium hydroxide being: [i] solid preparations, the pH of which in a 10 g/L aqueous solution is <=11.5, or [ii] liquid or semi-solid preparations the pH of which is <=11.5	
<b>Component</b> Sodium hydroxide	<b>Australian - Illicit Drug Precursors/Reagents Substance List</b> Category 3	

**Prohibition or notification/licensing requirements** Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

## Section 16 - Other Information

### Legend

**AICS** - Australian Inventory of Chemical Substances  
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**IECSC** - Chinese Inventory of Existing Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals  
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**ENCS** - Japanese Existing and New Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**CAS** - Chemical Abstracts Service

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**NZS 5433:2012** - Transport of Dangerous Goods on Land

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**WEL** - Workplace Exposure Limit

**DNEL** - Derived No Effect Level

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**VOC** - Volatile Organic Compounds

**ACGIH** - American Conference of Governmental Industrial Hygienists

**PNEC** - Predicted No Effect Concentration

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**ADG** Australian Code for the Transport of Dangerous Goods by Road and Rail

**OECD** - Organisation for Economic Co-operation and Development

**LC50** - Lethal Concentration 50%

**ATE** - Acute Toxicity Estimate

**RPE** - Respiratory Protective Equipment

**NOEC** - No Observed Effect Concentration

**BCF** - Bioconcentration factor

**PBT** - Persistent, Bioaccumulative, Toxic

#### Key literature references and sources for data

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

#### Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

**Revision Date**

22-Apr-2018

**Revision Summary**

Update to Format.

### This safety data sheet complies with the requirements of Safe Work Australia WHS Regulation

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

## End of Safety Data Sheet