BUFFER pH 11
Safety Data Sheet
According to SANS 10234:2008 and SANS 11014:2010

SECTION 1: Identification

1.1. Product identifier

Product form	:	Mixture
Trade name	:	BUFFER pH 11
Product code	:	202074x

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended uses and restrictions   :   For laboratory use only

1.3. Supplier's details

Labchem (Pty)Ltd
6 Wakefield Road
Founders Hill
1609 Johannesburg - South Africa
T +27 11 452 1116 - F +27 86 588 0293
techlab@labchem.co.za - www.labchem.co.za

1.4. Emergency telephone number

Emergency number   :   +27 11 452 1116

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Reproductive toxicity, Category 1A   H360

Full text of H statements : see section 16

2.2. Label elements

Labelling according to the United Nations GHS

Hazard pictograms (GHS-ZA)   :

GHS08

Signal word (GHS-ZA)	:	Danger
Hazardous ingredients	:	boric acid
Hazard statements (GHS-ZA)	:	H360 - May damage fertility or the unborn child.
Precautionary statements (GHS-ZA)	:	P201 - Obtain special instructions before use.
		P202 - Do not handle until all safety precautions have been read and understood.
		P280 - Wear protective gloves/protective clothing/eye protection/face protection.
		P308+P313 - IF exposed or concerned: Get medical advice/attention.
		P405 - Store locked up.
		P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Adverse physicochemical, human health and environmental effects   :   To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice,May damage fertility or the unborn child.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
water	(CAS-No.) 7732-18-5	> 98.5	Not classified
boric acid	(CAS-No.) 10043-35-3	< 1	Repr. 1A, H360 Aquatic Acute 3, H402
sodium hydroxide	(CAS-No.) 1310-73-2	<0.5	Skin Corr. 1, H314 Aquatic Acute 3, H402

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Separate working clothes from town clothes. Launder separately.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Keep cool. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

BUFFER pH 11

Safety Data Sheet

According to SANS 10234:2008 and SANS 11014:2010

8.3.	Individual protection measures, such as personal protective equipment (PPE)

Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. [In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):

8.4.	Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1.	Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Translucent.
Colour	: Colourless.
Odour	: Odourless.
Odour threshold	: No data available
pH	: 11
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Vapour pressure at 50 °C	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Relative density of saturated gas/air mixture	: No data available
Density	: No data available
Relative gas density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available

9.2.	Other information

No additional information available

SECTION 10: Stability and reactivity

10.1.	Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2.	Chemical stability

Stable under normal conditions.

10.3.	Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4.	Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5.	Incompatible materials

No additional information available

10.6.	Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1.	Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

boric acid (10043-35-3)	
LD50 oral rat	> 2600 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral, 15 day(s))
LD50 dermal rat	<
LD50 dermal rabbit	> 2000 mg/kg (FIFRA (40 CFR), 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 inhalation rat (mg/l)	> 2.12 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust), 14 day(s))

Skin corrosion/irritation	: Not classified
	pH: 11
Serious eye damage/irritation	: Not classified
	pH: 11
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: May damage fertility or the unborn child.
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1.	Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

sodium hydroxide (1310-73-2)	
LC50 fish 1	45.4 mg/l (96 h, Salmo gairdneri, Static system, Fresh water, Experimental value, Solution >=50%)
EC50 Daphnia 1	40.4 mg/l (48 h, Ceriodaphnia sp., Experimental value, Nominal concentration)
boric acid (10043-35-3)	
LC50 fish 1	79.7 mg/l (EPA OPPTS 850.1075, 96 h, Pimephales promelas, Static system, Fresh water, Read-across)
ErC50 (algae)	52.4 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Weight of evidence, GLP)
BCF fish 1	< 0.1 l/kg (60 day(s), Oncorhynchus tshawytscha, Flow-through system, Fresh water, Weight of evidence, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-1.09 (Experimental value, EU Method A.8: Partition Coefficient, 22 °C)

BUFFER pH 11

Safety Data Sheet

According to SANS 10234:2008 and SANS 11014:2010

12.2.	Persistence and degradability
BUFFER pH 11	
Persistence and degradability	No additional information available
sodium hydroxide (1310-73-2)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
boric acid (10043-35-3)	
Persistence and degradability	Biodegradability in soil: not applicable. Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
12.3.	**Bioaccumulative potential**
BUFFER pH 11	
Bioaccumulative potential	No additional information available
sodium hydroxide (1310-73-2)	
Bioaccumulative potential	Not bioaccumulative.
boric acid (10043-35-3)	
BCF fish 1	< 0.1 l/kg (60 day(s), Oncorhynchus tshawytscha, Flow-through system, Fresh water, Weight of evidence, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-1.09 (Experimental value, EU Method A.8: Partition Coefficient, 22 °C)
Bioaccumulative potential	Not bioaccumulative.
12.4.	**Mobility in soil**
BUFFER pH 11	
Mobility in soil	No additional information available
sodium hydroxide (1310-73-2)	
Ecology - soil	No (test)data on mobility of the substance available.
boric acid (10043-35-3)	
Partition coefficient n-octanol/water (Log Pow)	-1.09 (Experimental value, EU Method A.8: Partition Coefficient, 22 °C)
Ecology - soil	No (test)data on mobility of the substance available. May be harmful to plant growth, blooming and fruit formation.
12.5.	**Other adverse effects**

Ozone   : Not classified

Other adverse effects   : No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods   : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
14.1. **UN number**		
Not regulated for transport		
14.2. **Proper Shipping Name**		
Not applicable	Not applicable	Not applicable
14.3. **Transport hazard class(es)**		
Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable
14.4. **Packing group**		
Not applicable	Not applicable	Not applicable
14.5. **Environmental hazards**		
Dangerous for the environment : No	Dangerous for the environment : No :	Dangerous for the environment : No
No supplementary information available		

BUFFER pH 11
Safety Data Sheet

14.6.	Special precautions for user

- SANS

No data available

- IMDG

No data available

- IATA

No data available

14.7.	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1.	Safety, health, and environmental national regulations specific for the product

Regulatory reference : SANS 10234:2008; SANS 11014:2010; SANS 10228:2012;SANS 10229:2010; SANS 10232(1,2,4), SANS 10231:2018; Occupational Health and Safety Act 85 of 1993; National Road Traffic Act 93 of 1996.

SECTION 16: Other information

Issue date : 09/03/2020

Revision date : 09/03/2025

Full text of H-statements:

H314	Causes severe skin burns and eye damage.
H360	May damage fertility or the unborn child.
H402	Harmful to aquatic life

SDS South Africa

The data provided in this Safety Data Sheet (SDS) is correct to the best of our knowledge. The data relates to the specific product as named and is ntended as a guide to the safe handling of the product in all its facets. The data may no longer be valid if the product is used in any process or in combination with other products.This SDS is not a quality specification nor any form of guarantee.