



Preparing for the New Era of Laboratories

MATERIAL SAFETY DATA SHEET (MSDS)

According to regulation (EU) no.1907/2006

BUFFER SOLUTION pH 9.0 (Borate)

PRODUCT CODE : L-1208

CAS No : Not Applicable

FORMULA : Not Applicable

UN No : Not Applicable

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MSDS Number : 0090

Date : Aug 19th, 2024

Version : 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 Product Name** : BUFFER SOLUTION pH 9.0 (Borate)
Synonyms : Borate buffer solution pH 9.0
CAS No. : Mixture (Not applicable)
HS Code : 3822 00 90
Chemical Formula : Not applicable
Molecular Weight : Not applicable
Product Code : L-1208
Brand : Labotiq
1.2 Manufacturer : Labotiq
Address : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111
Website : www.labotiq.net
Email : labotiq.id@gmail.com
For information : Phone : (+62-251) 839110, 8311662, Fax : (+62-251) 83135710
Emergency number : +6281316894650
1.3 Application : Laboratory chemicals, Manufacture of substances, General Chemical reagent

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture**
Classification according to Regulation (EC) No 1272/2008
 Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
- 2.2 Label elements**
 Not a hazardous substance or mixture.
- 2.3 Other hazards**
 This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

- 3.1 Substances**
Synonyms : Buffer pH 9.0 (Borate)
Formula : Not applicable
Molecular weight : Not applicable
CAS-No. : Mixture (Not applicable)

3.2 Mixture

Component	Classification	Concentration
Water (CAS-No.) 7732-18-5 (EC-No.) 231-791-2	Not classified	99 – 100
Disodium tetraborate (CAS-No.) 1303-96-4 (EC-No.) 215-540-4	Repr. 1B, H360F Repr. 1B, H360D	0.3 - 0.5

Potassium Chloride	Not classified	0.3 - 0.5
Sodium Hydroxide (CAS-No.) 1310-73-2	Skin Corr. 1A, H314 Eye Dam. 1, H318	0.1 - 0.5

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given, Do not use extinguishing media containing water

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Advice for firefighters

Nature of decomposition products not known.

Not combustible.

Ambient fire may liberate hazardous vapours.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

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6.2 Environmental precautions

No special precautionary measures necessary.

6.3 Methods and materials for containment and cleaning up

Observe possible material restrictions (see sections 7 and 10). Take up with liquid absorbent and neutralising material (e.g. Chemisorb® OH⁻, Merck Art. No. 101596). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Observe label precautions.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed.

Recommended storage temperature see product label.

Storage class

Storage class (TRGS 510): 12: Non Combustible Liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Derived No Effect Level (DNEL)

boric acid (10043-35-3)

Worker DNEL, longterm	Systemic effects inhalation	8,3 mg/m ³
Worker DNEL, longterm	Systemic effects dermal	392 mg/kg Body weight
Consumer DNEL, longterm	Systemic effects inhalation	4,15 mg/m ³
Consumer DNEL, longterm	Systemic effects dermal	196 mg/kg Body weight
Consumer DNEL, longterm	Systemic effects oral	0,98 mg/kg Body weight
Consumer DNEL, acute	Systemic effects oral	0,98 mg/kg Body weight

Predicted No Effect Concentration (PNEC)

boric acid (10043-35-3)

PNEC Fresh water	2,02 mg/l
PNEC Marine water	2,02 mg/l
PNEC Aquatic intermittent release	13,7 mg/l
PNEC Sewage treatment plant	10 mg/l
PNEC Soil	5,4 mg/kg

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8.2 Exposure control

Appropriat engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be

selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Not required; except in case of aerosol formation.

Control of environmental exposure

No special precautionary measures necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Form: liquid
	Colour: colourless
Odour	odourless
Odour Threshold	Not applicable
pH	9,0 at 25 °C
Melting point/freezingpoint	No data available
Initial boiling point and boiling range	100 °C at 1.013 hPa
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	1,00 g/cm ³ at 20 °C
Water solubility	at 20 °C soluble
Partition coefficient: noctanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available

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Viscosity
Explosive properties
Oxidizing properties

No data available
Not classified as explosive.
None

9.2 Other safety information

None

SECTION 10: Stability and reactivity**10.1 Reactivity**

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Violent reactions possible with: The generally known reaction partners of water.

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

No data available

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

CMR effects

Teratogenicity: May damage the unborn child.

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Reproductive toxicity

May damage fertility

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

Hazardous properties cannot be excluded, but are relatively improbable due to the low concentration of the dissolved substance(s). The following applies to boron compounds in general: resorption is followed by nausea and vomiting, agitation, spasms, CNS disorders, cardiovascular disorders. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information**12.1 Toxicity**

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects*Additional ecological information*

No ecological problems are to be expected when the product is handled and used with due care and attention.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

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SECTION 14: Transport information**14.1 UN number**

ADR/RID: -

IMDG: -

IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

14.4 Packaging group

ADR/RID: -

IMDG: -

IATA:-

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user**Further information**

No data available

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information**Full text of H-Statements referred to under sections 2 and 3.**

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H360 May damage fertility or the unborn child.

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 0

Reactivity: 2

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.

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