



Be Right™

SAFETY DATA SHEET

Product Name Buffer Solution pH 7.00 ± 0.02

Issue Date 26-Oct-2022

Revision Date 31-Oct-2022

Version 1.1

1. Identification

Product identifier

Product Name Buffer Solution pH 7.00 ± 0.02

Other names

Product Code(s) 2770120

Synonyms None.

Safety data sheet number M00369

Pure substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory reagent. Buffer.

Uses advised against Consumer use.

Manufacturer, importer or supplier name, address and telephone number

Manufacturer Address

Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

Emergency telephone number

Taiwan

Emergency Telephone +1(303) 623-5716 - 24 Hour Service

2. Hazard(s) identification

Chemical hazard classification

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Hazard statements

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Other hazards

No information available.

3. Composition/information on ingredients

Chemical Family Mixture

Substance
Not applicable.

Mixture

Chemical nature Aqueous alkaline solution.

The product contains no substances known to be hazardous to health or to the environment in concentrations which need to be taken into account.

Chemical name	English chemical name	Formula	CAS No	Percent Range
Phosphoric acid, disodium salt	Phosphoric acid, disodium salt	Na ₂ HPO ₄	7558-79-4	<1%
Phosphoric acid, potassium salt (1:1)	Phosphoric acid, potassium salt (1:1)	KH ₂ PO ₄	7778-77-0	<1%
Magnesium nitrate	Magnesium nitrate	No information available	10377-60-3	<0.1%
C.I. Acid Yellow 23	C.I. Acid Yellow 23	C ₁₆ H ₁₂ N ₄ O ₉ S ₂ • 3Na	1934-21-0	<0.01%

4. First-aid measures

Different exposure routes and first aid procedures

Inhalation	Remove to fresh air.
Skin contact	Wash skin with soap and water.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Ingestion	Rinse mouth.
Most important symptoms and effects	No information available.
Self-protection of the first aider	No information available.
Note to physicians	Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media
Suitable Extinguishing Media

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

Small Fire
Large Fire

Dry chemical or CO₂.
CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical No information available.

Hazardous combustion products	This material will not burn.
<u>Specific/special fire-fighting measures</u>	Fires need to be assessed to determine appropriate protocols and safety measures for firefighting, including establishing safe zones, extinguishing media to be used, firefighter protection, and actions to control or extinguish the fire.
<u>Special protective equipment for fire-fighters</u>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

6. Accidental release measures

<u>Personal precautions</u>	Ensure adequate ventilation.
Reference to other sections	See section 8 for more information. See section 13 for more information.
For emergency responders	Use personal protection recommended in Section 8.
<u>Environmental precautions</u>	See Section 12 for additional Ecological Information.
<u>Methods for cleaning up</u>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and storage

<u>Handling</u>	Handle in accordance with good industrial hygiene and safety practice.
<u>Storage</u>	Keep containers tightly closed in a dry, cool and well-ventilated place.
Incompatible materials	None known based on information supplied.

8. Exposure controls/personal protection

<u>Engineering controls</u>	Showers Eyewash stations Ventilation systems.
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Control parameters

Occupational exposure limits

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

Legend

See section 16 for terms and abbreviations

Biological limit value	This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.
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Personal protective equipment

Respiratory protection	Ensure adequate ventilation.
Eye/face protection	No special protective equipment required.
Hand protection	No special protective equipment required.

Skin and body protection No special protective equipment required.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	clear	Odor	Odorless
Physical state	Liquid	Odor threshold	Not applicable
Color	yellow		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Molecular weight	Not applicable	
pH	7.3	@ 20 °C
Melting point / freezing point	~ 0 °C / 32 °F	
Initial boiling point and boiling range	~ 100 °C / 212 °F	
Evaporation rate	1 (water = 1)	
Vapor pressure	18.002 mm Hg / 2.4 kPa at 20 °C / 68 °F	
Relative vapor density	0.62	
Specific Gravity	1	
Partition coefficient	No data available	
Soil Organic Carbon-Water Partition Coefficient	No data available	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Dynamic viscosity	~ 1 cP (mPa s) at 20 °C / 68 °F	
Kinematic viscosity	~ 1 cSt (mm²/s) at 20 °C / 68 °F	

Solubility(ies)

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Completely soluble	> 10000 mg/L	25 °C / 77 °F

Solubility in other solvents

None reported	No information available	No data available	No information available
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Other information

Metal Corrosivity

Steel Corrosion Rate	No data available
Aluminum Corrosion Rate	No data available

Volatile Organic Compounds (VOC) Content

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Phosphoric acid, disodium salt	7558-79-4	No data available	-
Phosphoric acid, potassium salt (1:1)	7778-77-0	No data available	-
Magnesium nitrate	10377-60-3	No data available	-
C.I. Acid Yellow 23	1934-21-0	Not applicable	-

Explosive properties

Upper explosion limit
Lower explosion limit

Not applicable
Not applicable

Flammable properties

Flash point

No data available

Flammability Limit in Air

Upper flammability limit:
Lower flammability limit:

No data available
No data available

Oxidizing properties

No data available.

Other information

VOC content

No information available

Bulk density

No information available

10. Stability and reactivity

Stability

Stable under normal conditions.

Reactivity

No information available.

Sensitivity to mechanical impact

None.

Sensitivity to static discharge

None.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

None known based on information supplied.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products Carbon monoxide. Carbon dioxide (CO₂). Nitrogen oxides (NO_x). metal oxides.

11. Toxicological information

Information on likely routes of exposure**Product Information**

Inhalation

Specific test data for the substance or mixture is not available.

Eye contact

Specific test data for the substance or mixture is not available.

Skin contact

Specific test data for the substance or mixture is not available.

Ingestion

Specific test data for the substance or mixture is not available.

Symptoms

No information available.

Acute toxicity**Numerical measures of toxicity - Product Information****Substance**

Test data reported below.

Oral Exposure Route**Skin corrosion/irritation**

Based on available data, the classification criteria are not met.

Mixture

No data available.

Substance

Test data reported below.

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Mixture

No data available.

Substance

Test data reported below.

Respiratory or skin sensitization

Based on available data, the classification criteria are not met.

Mixture

No data available.

Substance

Test data reported below.

Skin Sensitization Exposure Route**Respiratory Sensitization Exposure Route****STOT - single exposure**

Based on available data, the classification criteria are not met.

Mixture

No data available.

Substance

Test data reported below.

Oral Exposure Route**STOT - repeated exposure**

Based on available data, the classification criteria are not met.

Mixture

No data available.

Substance

Test data reported below.

Oral Exposure Route**Carcinogenicity**

Based on available data, the classification criteria are not met.

Mixture

No data available.

Substance

No data available.

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA	Does not apply

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Mixture *invitro* Data

No data available.

Substance *invitro* Data

Test data reported below.

Mixture *in vivo* Data

No data available.

Substance *in vivo* Data

No data available.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Mixture

No data available.

Substance

Test data reported below.

Oral Exposure Route**Aspiration hazard**

Based on available data, the classification criteria are not met.

12. Ecological information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Unknown aquatic toxicity

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Mixture**Aquatic Acute Toxicity**

No data available.

Aquatic Chronic Toxicity

No data available.

Substance**Aquatic Acute Toxicity**

Test data reported below.

Fish**Crustacea****Algae****Aquatic Chronic Toxicity**

No data available.

Persistence and degradability**Mixture**

No data available.

Bioaccumulation**Mixture**

No data available.

Partition coefficient

No data available

Mobility**Soil Organic Carbon-Water Partition Coefficient**

No data available

Other adverse effects

No information available.

13. Disposal considerations**Disposal methods**

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Do not reuse empty containers.

14. Transport information**DOT**

Not regulated

IMDG

Not regulated

IATA

Not regulated

China

Not regulated

Additional information

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

15. Regulatory information

Regulatory information**National Regulations**

See section 8 for national exposure control parameters

Applicable regulations: No information available

Toxic and Concerned Chemical Substances Control Act**International Inventories**

TCSI	Contact supplier for inventory compliance status.
TSCA	Complies.
DSL/NDL	Complies.
EINECS/ELINCS	Complies.
ENCS	Complies.
IECSC	Complies.
KECL - Existing substances	Complies.
PICCS	Complies.
AICS	Complies.
NZIoC	-.

TCSI - Taiwan Chemical Substance Inventory

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

16. Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
ATSDR	ATSDR (Agency for Toxic Substances and Disease Registry)
CCRIS	CCRIS (Chemical Carcinogenesis Research Information System)
CDC	CDC (Center for Disease Control)
CEPA	CEPA (Canadian Environmental Protection Agency)
CICAD	CICAD (Concise International Chemical Assessment Documents)
ECHA	ECHA (The European Chemicals Agency)
EEA	EEA (European Environment Agency)
EPA	EPA (Environmental Protection Agency)
ERMA	ERMA (New Zealand's Environmental Risk Management Authority)
ECOSARS	Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™
FDA	FDA (Food & Drug Administration)
GESTIS	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)
HSDB	HSDB (Hazardous Substances Data Bank)

INERIS	INERIS (The National Industrial Environment and Risks Institute)
IPCS INCHEM	IPCS INCHEM (International Programme on Chemical Safety)
IUCLID	IUCLID (The International Uniform Chemical Information Database)
NITE	Japan National Institute of Technology and Evaluation (NITE)
NIH	NIH (National Institutes of Health)
NIOSH	NIOSH (National Institute for Occupational Safety and Health)
LOLI	LOLI (List of Lists - An International Chemical Regulatory Database)
NDF	no data
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH IDLH	Immediately Dangerous to Life or Health
OSHA	OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEEN	PEEN (Pan European Ecological Network)
RTECS	RTECS (Registry of Toxic Effects of Chemical Substances)
SIDS	SIDS (Screening Information Dataset) for High Volume Chemicals
SYKE	The Finnish Environment Institute (SYKE)
USDA	USDA (United States Department of Agriculture)
USDC	USDC (United States Department of Commerce)
WHO	WHO (World Health Organization)

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value	MAC	Maximum Allowable Concentration
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

Prepared By	Hach Product Compliance Department
Issue Date	26-Oct-2022
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Revision Note	None
Reference Sources for Section 11	See Section 11: TOXICOLOGICAL INFORMATION

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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End of Safety Data Sheet