

SAFETY DATA SHEET

Issue Date 07-Oct-2020

Revision Date 10-Aug-2021 Version 8.3

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1. IDENTIFICATION

Product identifier Product Name	Buffer Solution pH 7.00 ± 0.02
Other means of identification Product Code(s)	2283549

Safety data sheet number M00369

Recommended use of the chemical and restrictions on useRecommended UseLaboratory reagent. Buffer.Uses advised againstConsumer use.Restrictions on useFor Laboratory Use Only.

Details of the supplier of the safety data sheet

Manufacturer Address

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

Emergency telephone number

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

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

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

Hazards not otherwise classified (HNOC) Not applicable

Label elements

Signal word None

Hazard statements

The product contains no substances which at their given concentration, are considered to be hazardous to health

Other Hazards Known

None

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance Not applicable

<u>Mixture</u>

Chemical Family Chemical nature

Mixture. Aqueous alkaline solution.

Chemical name	CAS No	Percent Range	HMRIC #
Phosphoric acid, disodium salt	7558-79-4	<1%	-
Magnesium nitrate	10377-60-3	<0.1%	-
3(2H)-Isothiazolone, 5-chloro-2-methyl-	26172-55-4	<0.01%	-
3(2H)-Isothiazolone, 2-methyl-	2682-20-4	<0.01%	-

4. FIRST AID MEASURES

Description of first aid measures

General advice	No hazards which require special first aid measures. Use first aid treatment according to the nature of the injury.		
Inhalation	Remove to fresh air.		
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.		
Skin contact	Wash skin with soap and water.		
Ingestion	Clean mouth with water and drink afterwards plenty of water.		
Most important symptoms and effects, both acute and delayed			
Symptoms	See Section 11 for additional Toxicological Information.		
Indication of any immediate medica	al attention and special treatment needed		
Note to physicians	Treat symptomatically.		
	5. FIRE-FIGHTING MEASURES		
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the		

	surrounding environment.
Unsuitable Extinguishing Media	Caution: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	No information available.
Hazardous combustion products	This material will not burn.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

U.S. Notice	Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.	
Personal precautions, protective ec	uipment and emergency procedures	
Personal precautions	Ensure adequate ventilation.	
Environmental precautions		
Environmental precautions	See Section 12 for additional ecological information.	
Methods and material for containm	ent and cleaning up	
Methods for containment	Prevent further leakage or spillage if safe to do so.	
Methods for cleaning up	Pick up and transfer to properly labeled containers.	
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.	
Reference to other sections	See section 8 for more information. See section 13 for more information.	

7. HANDLING AND STORAGE

Precautions for safe handling	
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.
Conditions for safe storage, includi	ng any incompatibilities
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
Flammability class	Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters	
Exposure Guidelines	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
Appropriate engineering controls Engineering Controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, su Respiratory protection	<u>ch as personal protective equipment</u> No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Ensure adequate ventilation.
Hand Protection	Wear suitable gloves.
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Eye/face protection	Wear safety glasses with side shields (or goggles).		
Skin and body protection	No special protective equipment required.		
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.		
Environmental exposure controls	Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.		
Thermal hazards	None under normal processing.		

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Appearance Odor	clear Odorless	Liquid		Color Odor threshold	yellow Not applical	ble
Property_			<u>Values</u>			Remarks • Method
Molecular weight	:		Not applicable			
рН			7.3			@ 20 °C
Melting point/free	ezing point		~ 0 °C / 32	°F		
Boiling point / bo	iling 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 de	ensity		0.62			
Specific gravity (water = 1 / air = 1)		1			
Partition Coeffici	ent (n-octanol/wat	er)	No data availat	ble		
	oon-Water Partitio	า	No data availat	ble		
Coefficient Autoignition tem	perature		No data availat	ble		
Decomposition to	emperature		No data availat	ble		
Dynamic viscosit	ÿ		~ 1 cP (mPa s)	at 20 °C / 68 °l	F	
Kinematic viscos	ity		~ 1 cSt (mm²/s)) at 20 °C / 68 °	'F	
<u>Solubility(ies)</u>						

Water solubility

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

Solubility in other solvents

Chemical Name	Solubility classification	<u>Solubility</u>	Solubility Temperature
None reported	No information available	No data available	No information available
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Other information

Metal Corrosivity

Steel Corrosion Rate Aluminum Corrosion Rate

No data available 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	-
Magnesium nitrate	10377-60-3	No data available	-
3(2H)-Isothiazolone, 5-chloro-2-methyl-	26172-55-4	No data available	-
3(2H)-Isothiazolone, 2-methyl-	2682-20-4	No data available	-

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.
Bulk density	Not applicable

10. STABILITY AND REACTIVITY

Reactivity Not applicable.

Chemical stability

Stable under normal conditions.

Explosion data

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

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None known based on information supplied.

Incompatible materials

Strong oxidizing agents, strong acids, and strong bases.

Hazardous decomposition products

Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx). metal oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	No known effect based on information supplied.
Eye contact	No known effect based on information supplied.
Skin contact	No known effect based on information supplied.
Ingestion	No known effect based on information supplied.
Symptoms	No information available.

Acute toxicity

Based on available data, the classification criteria are not met

Product Acute Toxicity Data No data available.

Ingredient Acute Toxicity Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Magnesium nitrate	Rat	5440 mg/kg	None	None reported	IUCLID (The International
(<0.1%)	LD50		reported		Uniform Chemical Information
CAS#: 10377-60-3					Database)
3(2H)-Isothiazolone,	Rat	481 mg/kg	None	None reported	IUCLID (The International
5-chloro-2-methyl-	LD50		reported		Uniform Chemical Information
(<0.01%)					Database)
CAS#: 26172-55-4					

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
3(2H)-Isothiazolone, 2-methyl- (<0.01%) CAS#: 2682-20-4	None reported	None reported	None reported	None reported	No information available

Inhalation (Dust/Mist) Exposure Route

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity.

Acute Toxicity Estimations (ATE)

ATEmix (oral)	No information available
ATEmix (dermal)	No information available
ATEmix (inhalation-dust/mist)	No information available
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

Skin corrosion/irritation

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

Product Skin Corrosion/Irritation Data

No data available.

Ingredient Skin Corrosion/Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Phosphoric acid, disodium salt (<1%) CAS#: 7558-79-4	Standard Draize Test	Rabbit	500 mg	24 hours	Skin irritant	RTECS (Registry of Toxic Effects of Chemical Substances)
Magnesium nitrate (<0.1%) CAS#: 10377-60-3	Standard Draize Test	Rabbit	500 mg	24 hours	Skin irritant	HSDB (Hazardous Substances Data Bank)
3(2H)-Isothiazolone, 5-chloro-2-methyl- (<0.01%) CAS#: 26172-55-4	OECD Test 404: Acute Dermal Corrosion/Irritation	Rabbit	None reported	None reported	Corrosive to skin	OECD 429: Skin Sensitization: Local Lymph Node Assay

Serious eye damage/irritation

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

Product Serious Eye Damage/Eye Irritation Data

No data available.

Ingredient Eye Damage/Eye Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Phosphoric acid, disodium salt (<1%) CAS#: 7558-79-4	Standard Draize Test	Rabbit	500 mg	24 hours	Eye irritant	RTECS (Registry of Toxic Effects of Chemical Substances)
Magnesium nitrate (<0.1%) CAS#: 10377-60-3	Standard Draize Test	Rabbit	500 mg	24 hours	Eye irritant	HSDB (Hazardous Substances Data Bank)
3(2H)-Isothiazolone, 5-chloro-2-methyl- (<0.01%) CAS#: 26172-55-4	OECD Test 405: Acute Eye Corrosion/Irritation	Rabbit	None reported	None reported	Eye irritant	ERMA (New Zealands Environmental Risk Management Authority) OECD 429: Skin Sensitization: Local Lymph Node Assay

Respiratory or skin sensitization

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

Product Sensitization Data

No data available.

Ingredient Sensitization Data

Test data reported below.

Skin Sensitization Exposure Route

Chemical name	Test method	Species	Results	Key literature references and sources for data
3(2H)-Isothiazolone, 5-chloro-2-methyl- (<0.01%) CAS#: 26172-55-4	OECD Test No. 406: Skin Sensitization	Guinea pig	Confirmed to be a skin sensitizer	IUCLID (The International Uniform Chemical Information Database)

STOT - single exposure

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

Product Specific Target Organ Toxicity Single Exposure Data No data available.

Ingredient Specific Target Organ Toxicity Single Exposure Data No data available.

STOT - repeated exposure

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

Product Specific Target Organ Toxicity Repeat Dose Data No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data No data available.

Carcinogenicity

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

Product Carcinogenicity Data

No data available.

Ingredient Carcinogenicity Data

No data available.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Phosphoric acid, disodium salt	7558-79-4	-	-	-	-
Magnesium nitrate	10377-60-3	-	Group 2A	-	Х
3(2H)-Isothiazolone, 5-chloro-2-methyl-	26172-55-4	-	-	-	-
3(2H)-Isothiazolone, 2-methyl-	2682-20-4	-	-	-	-

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 (Occupational Safety and Health Administration of the US Department of	Does not apply
Labor)	

Germ cell mutagenicity

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

Product Germ Cell Mutagenicity invitro **Data** No data available.

Ingredient Germ Cell Mutagenicity invitro **Data** No data available.

Product Germ Cell Mutagenicity invivo Data No data available.

Ingredient Germ Cell Mutagenicity invivo Data

No data available.

Reproductive toxicity

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

Product Reproductive Toxicity Data

No data available.

Ingredient Reproductive Toxicity Data

No data available.

Aspiration hazard

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

12. ECOLOGICAL INFORMATION

Ecotoxicity	Based on available data, the classification criteria are not met.
Unknown aquatic toxicity	0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.
Product Ecological Data	
Aquatic Acute Toxicity No data available.	

Aquatic Chronic Toxicity No data available.

Ingredient Ecological Data

Aquatic Acute Toxicity

Test data reported below.

Fish

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Magnesium nitrate (<0.1%) CAS#: 10377-60-3	96 hours	Lepomis macrochirus	LC50	9000 mg/L	ECHA (The European Chemicals Agency)
3(2H)-Isothiazolone, 5-chloro-2-methyl- (<0.01%) CAS#: 26172-55-4	96 hours	Oncorhynchus mykiss	LC ₅₀	0.19 mg/L	EPA (United States Environmental Protection Agency)
3(2H)-Isothiazolone, 2-methyl- (<0.01%)	96 hours	Oncorhynchus mykiss	LC ₅₀	0.7 mg/L	EPA (United States Environmental Protection Agency)

CAS#: 2682-20-4		
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Crustacea

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Magnesium nitrate (<0.1%) CAS#: 10377-60-3	48 Hours	Daphnia magna	EC ₅₀	880 mg/L	ECHA (The European Chemicals Agency)
3(2H)-Isothiazolone, 5-chloro-2-methyl- (<0.01%) CAS#: 26172-55-4	48 Hours	None reported	LC50	0.56 mg/L	EPA (United States Environmental Protection Agency)
3(2H)-Isothiazolone, 2-methyl- (<0.01%) CAS#: 2682-20-4	48 Hours	Daphnia magna	EC50	0.18 mg/L	EPA (United States Environmental Protection Agency)

Algae

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Magnesium nitrate (<0.1%) CAS#: 10377-60-3	72 Hours	Scenedesmus subspicatus	EC ₅₀	> 100 mg/L	ECHA (The European Chemicals Agency)
3(2H)-Isothiazolone, 5-chloro-2-methyl- (<0.01%) CAS#: 26172-55-4	72 Hours	None reported	EC ₅₀	0.021 mg/L	EPA (United States Environmental Protection Agency)

Aquatic Chronic Toxicity

No data available.

Persistence and degradability

Product Biodegradability Data No data available.

Bioaccumulation There is no data for this product **Product Bioaccumulation Data** No data available.

Partition Coefficient (n-octanol/water)

Mobility

Soil Organic Carbon-Water Partition Coefficient

No data available

No data available

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

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Contaminated packaging	Do not reuse empty containers.
US EPA Waste Number	Not applicable
Special instructions for disposal	If permitted by regulation. Open cold water tap completely, slowly pour the material to the drain. Check with local municipal and state authorities and waste contractors for pertinent local information regarding the proper disposal of chemicals.
	14. TRANSPORT INFORMATION
DOT	Not regulated
TDG	Not regulated
IATA	Not regulated
IMDG	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

National Inventories TSCA DSL/NDSL

Complies Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories

EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL - Existing substances	Complies
PICCS	Complies
TCSI	Complies
AICS	Complies
NZIOC	Complies

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

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

NZIOC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any

chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Magnesium nitrate (CAS #: 10377-60-3)	1.0
SARA 311/312 Hazard Categories	
Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Phosphoric acid, disodium salt 7558-79-4	5000 lb	-	-	Х

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Phosphoric acid, disodium salt	5000 lb	-	RQ 5000 lb final RQ
7558-79-4			RQ 2270 kg final RQ

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

IMERC: Not applicable

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania
Phosphoric acid, disodium salt 7558-79-4	Х	Х	Х
Magnesium nitrate 10377-60-3	Х	Х	Х

U.S. EPA Label Information

Chemical name	FIFRA	FDA
Phosphoric acid, disodium salt	180.0910	21 CFR 182.1778,21 CFR 182.6290,21
		CFR 182.6778,21 CFR 182.8778
Magnesium nitrate	180.0920	-
3(2H)-Isothiazolone, 5-chloro-2-methyl-	180.0920	-
3(2H)-Isothiazolone, 2-methyl-	180.0920	-

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Special Comments

Additional information

Global Automotive Declarable Substance List (GADSL)

Chemical name	Global Automotive Declarable Substance List Classifications	Global Automotive Declarable Substance List Thersholds
Magnesium nitrate 10377-60-3	Declarable Substance (FI)	0.1 %
3(2H)-Isothiazolone, 5-chloro-2-methyl- 26172-55-4	Prohibited Substance (LR)	0 %
3(2H)-Isothiazolone, 2-methyl- 2682-20-4	Declarable Substance (LR) Prohibited Substance (LR)	0 %

NFPA and HMIS Classifications

NFPA	Health hazards - 0	Flammability - 0	Instability - 0	Physical and chemical properties -
HMIS	Health hazards - 0	Flammability - 0	Physical hazards - 0	Personal protection - X
				- 1

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

NIOSH IDLH ACGIH NDF		Immediately Dangerous to Life or Health ACGIH (American Conference of Governmental Industrial Hygienists) no data		
Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION				
TWA	TWA (time-weighted average)		STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration		Ceiling	Ceiling Limit Value
Х	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+ C M	Respiratory sensitization Carcinogen mutagen		R	Hazard Designation Reproductive toxicant
Prepared By	-	Hach Product Compliance Department		
Issue Date		07-Oct-2020		
Revision Date		10-Aug-2021		
Revision Note		None		
Disclaimer				

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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