

SAFETY DATA SHEET

Issue Date 01-Nov-2017 Revision Date 01-Nov-2017 Version 1.5 Page 1/16 **1. IDENTIFICATION** Product identifier **Product Name Buffer-Masking Solution**

Other means of identification Product Code(s) 2229653 Safety data sheet number M00654 UN/ID no UN1824

Recommended use of the chemical and restrictions on use

Recommended Use Buffer. Uses advised against None. None. **Restrictions on use**

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 +1(515)232-2533 - 8am - 4pm CST

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Respiratory sensitization	
Skin sensitization	
Mutagenicity	
Carcinogenicity	
Reproductive toxicity	
Specific target organ toxicity (single exposure)	
Specific target organ toxicity (repeated exposure)	

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Signal word - Danger

Product Name Buffer-Masking Solution Revision Date 01-Nov-2017 Page 2/16



Hazard statements

H314 - Causes severe skin burns and eye damage H290 - May be corrosive to metals

Precautionary statements

P260 - Do not breathe dusts or mists

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower P363 - Wash contaminated clothing before reuse

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P405 - Store locked up

P501 - Dispose of contents/ container to an approved waste disposal plant

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

Other Information

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No.	Percent Range	HMRIC #
Sodium hydroxide	1310-73-2	3 - 7%	-
Triethanolamine	102-71-6	3 - 7%	-

4. FIRST AID MEASURES

Description of first aid measures

General advice	See section 8 for PPE that may be required during handling. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). If no local exhaust use approved fume hood and/or respirator. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. Remove from exposure, lie down. Immediate medical attention is required. IF IN EYES: Flush eyes for at least 15 minutes. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.			
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.			
Skin contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.			
Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a physician immediately.			
Ingestion	IF SWALLOWED: Rinse Mouth. Do NOT induce vomiting. Call a physician immediately.			
Self-protection of the first aider	First aider: Pay attention to self-protection!. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.			
Most important symptoms and effects, both acute and delayed				
Symptoms	See Section 11: TOXICOLOGICAL INFORMATION.			
Indication of any immediate medical 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.

Flammable properties

During a fire, this product decomposes to form toxic gases.

Specific hazards arising from the chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

Hazardous combustion products

Nitrogen oxides. Carbon monoxide, Carbon dioxide.

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Product Name Buffer-Masking Solution Revision Date 01-Nov-2017 **Page** 4 / 16

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	equipment and emergency procedures		
Personal precautions	Evacuate personnel to safe areas. Do not touch or walk through spilled material. Ventilate affected area. Use personal protective equipment as required.		
For emergency responders	Use personal protection recommended in Section 8.		
Environmental precautions			
Environmental precautions	Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.		
Methods and material for contain	ment and cleaning up		
Methods for containment	Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.		
Methods for cleaning up	Neutralize spill if necessary. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Dispose of in accordance with local, state and federal regulations or laws.		
Emergency Response Guide Nu	nber 154		
	7. HANDLING AND STORAGE		
Precautions for safe handling			
Advice on safe handling	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray.		
Conditions for safe storage, incl	uding any incompatibilities		
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.		
Flammability class	Not applicable		
8. E	EXPOSURE CONTROLS/PERSONAL PROTECTION		
Control parameters			
Exposure Guidelines	This product, as supplied, does not contain any hazardous materials with occupational		

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

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide	Ceiling: 2 mg/m ³	TWA: 2 mg/m ³	IDLH: 10 mg/m ³
3 - 7%		(vacated) Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³
Triethanolamine	TWA: 5 mg/m ³	NDF	NDF
3 - 7%			

Product Name Buffer-Masking Solution Revision Date 01-Nov-2017 Page 5 / 16

Chemical name	Alberta OEL	British Columbia OEL	Manitoba OEL	New Brunswick OEL	New Foundland & Labrador OEL
Sodium hydroxide 3 - 7%	Ceiling: 2 mg/m ³				
Triethanolamine 3 - 7%	TWA: 5 mg/m ³				

Chemical name	Northwest Territories OEL	Nova Scotia OEL	Nunavut OEL	Ontario TWA	Prince Edward Island OEL
Sodium hydroxide 3 - 7%	Ceiling: 2 mg/m ³				
Triethanolamine	TWA: 5 mg/m ³	TWA: 5 mg/m ³	TWA: 5 mg/m ³	TWA: 0.5 ppm	TWA: 5 mg/m ³
3 - 7%	STEL: 10 mg/m ³		STEL: 10 mg/m ³	TWA: 3.1 mg/m ³	-

Chemical name	Quebec OEL	Saskatchewan OEL	Yukon OEL
Sodium hydroxide 3 - 7%	Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³
Triethanolamine 3 - 7%	TWA: 5 mg/m ³ SKN+	TWA: 5 mg/m ³ STEL: 10 mg/m ³	NDF
Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA. 965 F.2d 9			

(11th Cir., 1992).

Legend

See section 16 for terms and abbreviations

Appropriate engineering controls

Engineering Controls If no local exhaust use approved fume hood or self-contained breathing apparatus If no local exhaust use approved fume hood and/or respirator Showers Eyewash stations

Individual protection measures, such as personal protective equipment

Eye/face protection Wear tight sealing safety goggles and/or face protection shield. Avoid contact with eyes.

- Skin and body protectionWear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls,
as appropriate, to prevent skin contact.
- **Respiratory protection** Do not breathe gas/fumes/vapor/spray. If no local exhaust use approved fume hood and/or respirator. In case of inadequate ventilation wear respiratory protection.
- **General Hygiene Considerations** Avoid breathing (dust, vapor, mist, gas). Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear suitable gloves and eye/face protection. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feeding stuffs. Regular cleaning of equipment, work area and clothing is recommended. Handle in accordance with good industrial hygiene and safety practice. Avoid prolonged or repeated contact with skin. Take off all contaminated clothing and wash it before reuse.

Environmental exposure controls

Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state

Liquid

Product Name Buffer-Masking Solution Revision Date 01-Nov-2017 Page 6 / 16

Gas Under Press	ure	Not classified	according	to GHS criteria		
Appearance	aqueous solution			Color	yellow	
Odor	Odorless			Odor threshold	No data ava	ailable
Property_		<u>Valı</u>	ies_			<u>Remarks • Method</u>
Molecular weight	t	No	lata availal	ble		
рН		12.8				
Melting point/free	ezing point	~ -7	°C / 20	°F		Estimation based on theoretical calculation
Boiling point / bo	biling range	96	°C / 204 °	۴		
Evaporation rate		0.57	(water = 1)		
Vapor pressure		22.8	02 mm Hg	/ 3.04 kPa at 25	°C / 77 °F	Estimation based on theoretical calculation
Vapor density (ai	r = 1)	0.65	(air = 1)			
Specific gravity (water = 1 / air = 1)	1.07	3			
Partition Coeffici	ent (n-octanol/wate	er) Not	applicable			
Soil Organic Carl	bon-Water Partition	Not	applicable			
Autoignition tem	perature	No d	lata availal	ble		
Decomposition to	emperature	No	lata availal	ble		
Dynamic viscosi	ty	No	lata availal	ble		
Kinematic viscos	sity	No	lata availal	ble		

Solubility(ies)

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

Solubility in other solvents

Chemical Name	Solubility classification	<u>Solubility</u>	Solubility Temperature
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F

Other Information

Metal Corrosivity	Classified as corrosive to metal according to GHS criteria
Steel Corrosion Rate	No data available
Aluminum Corrosion Rate	No data available

Product Code(s) 2229653 Issue Date 01-Nov-2017 Version 1.5	Product Name Buffer-Masking Solution Revision Date 01-Nov-2017 Page 7 / 16
Bulk density	Not applicable
Explosive properties	Not classified according to GHS criteria.
Explosion data	No data available
Upper explosion limit	No data available
Lower explosion limit	No data available
Flammable properties	During a fire, this product decomposes to form toxic gases.
Flammability Limit in Air	
Upper flammability limit:	No data available
Lower flammability limit:	No data available
Flash point	No data available
Method	No information available
Oxidizing properties	Not classified according to GHS criteria.
Reactivity propeties	Not classified as self-reactive, pyrophoric, self-heating or emitting

10. STABILITY AND REACTIVITY

flammable gases in contact with water according to GHS criteria.

Reactivity propeties

Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria

Chemical stability

Stable under recommended storage conditions.

Special dangers of the product

None reported

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Extremes of temperature and direct sunlight. Incompatible materials.

Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products

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

Explosive properties

Not classified according to GHS criteria.

Product Name Buffer-Masking Solution Revision Date 01-Nov-2017 Page 8 / 16

Upper explosion limit No data available

Lower explosion limit

Autoignition temperature No data available

Sensitivity to Static Discharge None reported

Sensitivity to Mechanical Impact None reported

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information	Corrosive to skin. Corrosive to eyes.	
Inhalation	Causes burns. Corrosive by inhalation.	
Eye contact	Corrosive to the eyes and may cause severe damage including	
	blindness. Causes burns.	
Skin contact	Cause severe skin burns and eye damage. Causes burns.	
Ingestion	Ingestion causes burns of the upper digestive and respiratory tracts. Causes burns.	
Aggravated Medical Conditions	Eye disorders. Skin disorders. Respiratory disorders.	
Toxicologically synergistic products	None known.	
Toxicokinetics, metabolism and distribution	No information available.	

Product Acute Toxicity Data Oral Exposure Route Dermal Exposure Route Inhalation (Dust/Mist) Exposure Route Inhalation (Vapor) Exposure Route Inhalation (Gas) Exposure Route

No data available No data available No data available No data available No data available

Acute Toxicity Estimations (ATE)

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)

41,985.00 mg/kg

No data available

Ingredient Acute Toxicity Data Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Triethanolamine (3 - 7%) CAS#: 102-71-6	Rabbit LD₅₀	2200 mg/kg	None reported	None reported	ERMA (New Zealands Environmental Risk Management Authority)
Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium hydroxide (3 - 7%) CAS#: 1310-73-2	Rabbit LD₅₀	500 mg/kg	None reported	None reported	No information available
Triethanolamine (3 - 7%) CAS#: 102-71-6	Rat LD₅₀	8000 mg/kg	None reported	None reported	No information available

Dermal Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium hydroxide (3 - 7%)	Rabbit LD₅₀	1350 mg/kg	None reported	None reported	IUCLID (The International Uniform Chemical Information

CAS#: 1310-73-2		Database)			
Inhalation (Dust/Mist) Exposure Route	If available, see data below	If available, see data below			
Inhalation (Vapor) Exposure Route	If available, see data below				
Inhalation (Gas) Exposure Route	If available, see data below	If available, see data below			
Product Specific Target Organ Toxicity Single Ex	posure Data				
Oral Exposure Route	No data available				
Dermal Exposure Route	No data available				
Inhalation (Dust/Mist) Exposure Route	No data available				
Inhalation (Vapor) Exposure Route	No data available				
Inhalation (Gas) Exposure Route	No data available				
Ingredient Specific Target Organ Toxicity Single Exposure Data					
Oral Exposure Route					
Dermal Exposure Route					
Inhalation (Dust/Mist) Exposure Route	If available, see data below				
Inhalation (Vapor) Exposure Route	If available, see data below				
Inhalation (Gas) Exposure Route	If available, see data below				
<u>Aspiration toxicity</u> No data available					

Product Skin Corrosion/Irritation Data No data available.

Ingredient Skin Corrosion/Irritation Data

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sodium hydroxide (3 - 7%) CAS#: 1310-73-2	Patch test	Human	20 mg	24 hours	Corrosive to skin	RTECS (Registry of Toxic Effects of Chemical Substances)
Triethanolamine (3 - 7%) CAS#: 102-71-6	Standard Draize Test	Human	15 mg	72 hours	Skin irritant	RTECS (Registry of Toxic Effects of Chemical Substances)

Product Serious Eye Damage/Eye Irritation Data

No data available.

Ingredient Eye Damage/Eye Irritation Data

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sodium hydroxide (3 - 7%) CAS#: 1310-73-2	Standard Draize Test	Rabbit	0.05 mg	24 hours	Corrosive to eyes	RTECS (Registry of Toxic Effects of Chemical Substances)
Triethanolamine (3 - 7%) CAS#: 102-71-6	Standard Draize Test	Rabbit	20 mg	None reported	Eye irritant	RTECS (Registry of Toxic Effects of Chemical Substances)

Sensitization Information

<u>Product Sensitization Data</u> Skin Sensitization Exposure Route Respiratory Sensitization Exposure Route

Ingredient Sensitization Data Skin Sensitization Exposure Route Respiratory Sensitization Exposure Route No data available. No data available.

If available, see data below. If available, see data below.

Chronic Toxicity Information

Product Specific Target Organ Toxicity Repeat Dose Data				
Oral Exposure Route	No data available.			
Dermal Exposure Route	No data available.			
Inhalation (Dust/Mist) Exposure Route	No data available.			
Inhalation (Vapor) Exposure Route	No data available.			
Inhalation (Gas) Exposure Route	No data available.			
Ingredient Specific Target Organ Toxicity Repeat Exposure Data				

Oral Exposure Route	If available, see data below
Dermal Exposure Route	If available, see data below
Inhalation (Dust/Mist) Exposure Route	If available, see data below
Inhalation (Vapor) Exposure Route	If available, see data below
Inhalation (Gas) Exposure Route	If available, see data below
Product Carcinogenicity Data	
Oral Exposure Route	No data available
Dermal Exposure Route	No data available
Inhalation (Dust/Mist) Exposure Route	No data available
Inhalation (Vapor) Exposure Route	No data available

Inhalation (Gas) Exposure Route **Ingredient Carcinogenicity Data**

Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA
Sodium hydroxide	1310-73-2	-	-	-	-
Triethanolamine	102-71-6	-	Group 3	-	-

No data available

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Group 3 - Not classifiable as a human
	carcinogen
NTP (National Toxicology Program)	Does not apply
OSHA (Occupational Safety and Health Administration of the US Department of	Does not apply
Labor)	

Oral Exposure Route	If available, see data below
Dermal Exposure Route	If available, see data below
Inhalation (Dust/Mist) Exposure Route	If available, see data below
Inhalation (Vapor) Exposure Route	If available, see data below
Inhalation (Gas) Exposure Route	If available, see data below

Product Germ Cell Mutagenicity invitro Data No data available.

Ingredient Germ Cell Mutagenicity invitro Data Toxicological data for ingredients is not indicative of likely harm.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Triethanolamine (3 - 7%) CAS#: 102-71-6	Cytogenetic analysis	Human lymphocyte	0.1 mmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Triethanolamine	Sister chromatid	Human	1 mmol/L	None	Positive test result for	RTECS (Registry

Product Name Buffer-Masking Solution Revision Date 01-Nov-2017 Page 11 / 16

(3 - 7%) CAS#: 102-71-6	exchange	lymphocyte		reported	mutagenicity	of Toxic Effects of Chemical Substances)	
Product Germ Cell Mutagenicity invivo Data Oral Exposure Route Dermal Exposure Route Inhalation (Dust/Mist) Exposure Route Inhalation (Vapor) Exposure Route Inhalation (Gas) Exposure Route			No data available No data available No data available No data available No data available No data available				
Ingredient Germ Cell Mutagenicity invivo Data Oral Exposure Route Dermal Exposure Route Inhalation (Dust/Mist) Exposure Route Inhalation (Vapor) Exposure Route Inhalation (Gas) Exposure Route			lf available If available If available If available	e, see data belo e, see data belo	W W W		
<u>Product Reproductive Toxicity Data</u> Oral Exposure Route Dermal Exposure Route Inhalation (Dust/Mist) Exposure Route Inhalation (Vapor) Exposure Route Inhalation (Gas) Exposure Route			No data a No data a No data a No data a No data a	vailable vailable vailable			

Ingredient Reproductive Toxicity Data

Oral Exposure Route				Toxicological data for ingredients is not indicative of likely harm.		
Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data	
Triethanolamine (3 - 7%) CAS#: 102-71-6	Mouse LD⊾₀	16000 mg/kg	64 weeks	None reported	No information available	
Inhalation (Dust/Mist) Exposure Route Inhalation (Vapor) Exposure Route Inhalation (Gas) Exposure Route				If available, see data below If available, see data below If available, see data below		

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product Ecological Data

Aquatic toxicity

Fish Crustacea Algae No data available No data available No data available

Ingredient Ecological Data

Aquatic toxicity

Fish

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sodium hydroxide (3 - 7%) CAS#: 1310-73-2	96 hours	Oncorhynchus mykiss	LC50	45.4 mg/L	IUCLID (The International Uniform Chemical Information Database)
Triethanolamine (3 - 7%)	96 hours	Lepomis macrochirus	LC ₅₀	450 mg/L	IUCLID (The International Uniform Chemical Information

Product Name Buffer-Masking Solution Revision Date 01-Nov-2017 Page 12/16

CAS#: 102-71-6					Database)
Crustacea					
Chemical name	Exposure	Species	Endpoint	Reported	Key literature references and
	time		type	dose	sources for data
Sodium hydroxide	48 Hours	Daphnia sp.	EC ₅₀	40.4 mg/L	IUCLID (The International
(3 - 7%)				-	Uniform Chemical Information
CAS#: 1310-73-2					Database)
Algae		No	data available	;	

Algae

Other Information

Persistence and degradability

Product Biodegradability Data

If available, see ingredient data below.

Ingredient Biodegradability Data

Chemical name	Test method	Biodegradation	Exposure time	Results
Sodium hydroxide (3 - 7%) CAS#: 1310-73-2	None reported	None reported	None reported	Readily biodegradable
Triethanolamine (3 - 7%) CAS#: 102-71-6	OECD Test No. 303: Simulation Test - Aerobic Sewage Treatment A: Activated Sludge Units; B: Biofilms	None reported	None reported	Readily biodegradable

Bioaccumulation

Product Bioaccumulation Data

Test data reported below.

Not applicable

No data available

Partition Coefficient (n-octanol/water)

Ingredient Bioaccumulation Data

Partition Coefficient Chemical name Method (n-octanol/water) log Kow ~ 0 No information available Sodium hydroxide (3 - 7%) CAS#: 1310-73-2 Triethanolamine $\log K_{ow} = -1.59$ No information available (3 - 7%) CAS#: 102-71-6

Mobility

Product Information

Soil Organic Carbon-Water Partition Coefficient

Not applicable

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

Ingredient Information

Chemical name	Soil Organic Carbon-Water Partition	Method

Product Name Buffer-Masking Solution Revision Date 01-Nov-2017 **Page** 13/16

	Coefficient	
Sodium hydroxide (3 - 7%) CAS#: 1310-73-2	log K _{oc} ~ 0	No information available

Chemical name	Water solubility classification	Water solubility	Water solubility temperature °C	Water solubility temperature °F
Sodium hydroxide CAS#: 1310-73-2	Completely soluble	420000 mg/L	0 °C	32 °F
Triethanolamine CAS#: 102-71-6	Soluble	> 1000 mg/L	25 °C	77 °F

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods	
Disposal of wastes	Disposal should be in accordance with applicable regional, national, and local laws and regulations.
Contaminated packaging	Do not reuse container.
US EPA Waste Number	D002
Special instructions for disposal	Work in an approved fume hood. Adjust to a pH between 6 and 9 with an acid, such as sulfuric or citric. Open cold water tap completely, slowly pour the reacted material to the drain. Allow cold water to run for 5 minutes to completely flush the system.

14. TRANSPORT INFORMATION

U.S. DOT UN/ID no Proper shipping name Hazard Class Packing Group Emergency Response Guide Number	UN1824 Sodium Hydroxide Solution 8 II 154			
TDG				
UN/ID no	UN1824			
Proper shipping name	Sodium Hydroxide Solution			
Hazard Class	8 II			
Packing Group	11			
ΙΑΤΑ				
UN/ID no	UN1824			
Proper shipping name	Sodium Hydroxide Solution			
Hazard Class	8			
Packing Group	II			
ERG Code	154			
IMDG				
UN/ID no	UN1824			
ENG / AGHS				

Product Name Buffer-Masking Solution Revision Date 01-Nov-2017 Page 14/16

Proper shipping name	Sodium Hydroxide Solution
Hazard Class	8
Packing Group	П

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	Complies
DSL/NDSL	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	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

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
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
Sodium hydroxide	1000 lb	-	-	Х
ENG / AGHS				Page 14 / 16

|--|

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)
Sodium hydroxide	1000 lb	-	RQ 1000 lb final RQ
1310-73-2			RQ 454 kg final RQ

U.S. - Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues

Chemical name	U.S Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues
Triethanolamine (3 - 7%)	Theft - Chemical Weapons/Chemical Weapons Precursors STQ 220LBS
CAS#: 102-71-6	220100

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Sodium hydroxide 1310-73-2	Х	Х	Х
Triethanolamine 102-71-6	Х	X	Х

U.S. EPA Label Information

Chemical name	FIFRA	FDA
Sodium hydroxide	180.0910	21 CFR 184.1763
Triethanolamine	180.0920	-

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

Special Comments

None

Additional information

Global Automotive Declarable Substance List (GADSL) Not applicable

NFPA and HMIS Classifications

NFPA	Health hazards - 3	Flammability - 0	Instability - 0	Physical and Chemical Properties -
HMIS	Health hazards - 3	Flammability - 0	Physical Hazards - 0	Personal protection - X

					- See section 8 for more information
Key or legend to	abbreviations a	nd acronyms used in th	e safety data sheet		
NIOSH IDLH ACGIH NDF		Immediately Danger	ous to Life or Health	nental Industrial Hygier	ists)
Legend - Section	on 8: EXPOSURE	CONTROLS/PERSONA	L PROTECTION		
TWA	TWA (time-weig	hted average)	STEL	STEL (Short Term	Exposure Limit)
MAC	Maximum Allow	able Concentration	Ceiling	Ceiling Limit Value	
х	Listed		Vacated	binding levels of co listed in the final O for reference purpo some reference sta	no official status. The only intaminants are those SHA PEL. These lists are uses only. Please note that ate regulations of these e limits in their state
SKN* RSP+ C M	Skin designation Respiratory sen Carcinogen mutagen		SKN+ ** R	Skin sensitization Hazard Designation Reproductive toxica	
Prepared By		Hach Product Compl	iance Department		
Issue Date		01-Nov-2017			
Revision Date		01-Nov-2017			
Revision Note		None			
Disclaimer					

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