

SAFETY DATA SHEET

Issue Date 12-Feb-2018 Revision Date 12-Feb-2018 Version 3.2 Page 1 / 13

1. IDENTIFICATION

Product identifier

Product Name Buffered Dilution Water, Sterile

Other means of identification

Product Code(s) 1430598

Safety data sheet number M00862

Recommended use of the chemical and restrictions on use

Recommended Use Microbiological testing.

Uses advised against None. Restrictions on use None.

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 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

Hazard statements

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

Other Hazards Known

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

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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	<0.1%	•

4. FIRST AID MEASURES

Description of first aid measures

No hazards which require special first aid measures. Use first aid treatment according to General advice

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 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.

Caution: Use of water spray when fighting fire may be inefficient. **Unsuitable Extinguishing Media**

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.

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

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should respond to a spill involving chemicals.

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Environmental precautions

See Section 12 for additional ecological information. **Environmental precautions**

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Pick up and transfer to properly labeled containers. Methods for cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations. Prevention of secondary hazards

See section 8 for more information. See section 13 for more information. Reference to other sections

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, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. **Storage Conditions**

Flammability class Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

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
CAS#: 1310-73-2		(vacated) Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³

Appropriate engineering controls

Engineering Controls

Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

No protective equipment is needed under normal use conditions. If exposure limits are Respiratory protection

exceeded or irritation is experienced, ventilation and evacuation may be required.

Hand Protection Wear suitable gloves.

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.

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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 Liquid

Appearance aqueous solution Color colorless

Odor None Odor threshold No data available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

Molecular weight No data available

pH 7.3

Melting point/freezing point ~ 0 °C / 32 °F Estimation based on theoretical

calculation

Boiling point / boiling range 100 °C / 212 °F

Evaporation rate 1 (water = 1) Estimation based on theoretical

calculation

Vapor pressure 23.777 mm Hg / 3.17 kPa at 25 °C / 77 °F Estimation based on theoretical

calculation

Vapor density (air = 1) 0.62 (air = 1)

Specific gravity (water = 1 / air = 1) 1 Estimation based on theoretical

calculation

Partition Coefficient (n-octanol/water) Not applicable

Soil Organic Carbon-Water Partition

Coefficient

Not applicable

Autoignition temperature No data available

Decomposition temperatureNo data available

Dynamic viscosity No data available

Kinematic viscosity

No data available

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	Solubility	Solubility Temperature	
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F	

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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)
Sodium hydroxide	1310-73-2	No data available	-

Explosive properties

Upper explosion limit No data available Lower explosion limit No data available

Flammable properties

Flash point No data available Method No information available

Flammability Limit in Air

Upper flammability limit: No data available Lower flammability limit: No data available

No data available. **Oxidizing properties**

Bulk density Not applicable

Particle Size No information available **Particle Size Distribution** No information available

10. STABILITY AND REACTIVITY

Reactivity

Not applicable.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None Sensitivity to Static Discharge None.

Possibility of Hazardous Reactions

Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization

None under normal processing.

Conditions to avoid

Conditions to avoid None known based on information supplied.

Incompatible materials

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Incompatible materials Strong oxidizing agents, strong acids, and strong bases.

Hazardous Decomposition Products

None known based on information supplied.

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.

Aggravated Medical Conditions None known.

Toxicologically synergistic None known.

products

Toxicokinetics, metabolism and No information available.

distribution

Product Acute Toxicity Data

Oral Exposure RouteNo data availableDermal Exposure RouteNo data availableInhalation (Dust/Mist) Exposure RouteNo data availableInhalation (Vapor) Exposure RouteNo data availableInhalation (Gas) Exposure RouteNo data available

Unknown Acute Toxicity

0.01% 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

Ingredient Acute Toxicity Data

Oral Exposure Route If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium hydroxide (<0.1%) CAS#: 1310-73-2	Rabbit LD ₅₀	500 mg/kg	None reported	None reported	No information available

Dermal Exposure Route If available, see data below **Chemical name Endpoint** Reported **Exposure Toxicological effects** Key literature references and dose time sources for data type Sodium hydroxide Rabbit None reported IUCLID (The International 1350 mg/kg None LD50 **Uniform Chemical Information** (<0.1%)reported

Inhalation (Dust/Mist) Exposure Route Inhalation (Vapor) Exposure Route

CAS#: 1310-73-2

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

Database)

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Inhalation (Gas) Exposure Route If available, see data below

Product Specific Target Organ Toxicity Single Exposure 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

Ingredient Specific Target Organ Toxicity Single Exposure Data

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

Aspiration toxicity

No data available

Product Skin Corrosion/Irritation Data

No data available.

Ingredient Skin Corrosion/Irritation Data

If available, see data below

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sodium hydroxide (<0.1%)	Patch test	Human	20 mg	24 hours	Corrosive to skin	RTECS (Registry of Toxic Effects of
CAS#: 1310-73-2						Chemical Substances)

Product Serious Eye Damage/Eye Irritation Data

No data available.

Ingredient Eye Damage/Eye Irritation Data

If available, see data below

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sodium hydroxide (<0.1%) CAS#: 1310-73-2	Standard Draize Test	Rabbit	0.05 mg	24 hours	Corrosive to eyes	RTECS (Registry of Toxic Effects of Chemical Substances)

Sensitization Information

Product Sensitization Data

Skin Sensitization Exposure Route

Respiratory Sensitization Exposure Route

No data available.

No data available.

Ingredient Sensitization Data

Skin Sensitization Exposure Route
Respiratory Sensitization Exposure Route
If available, see data below.
If available, see data below.

Chronic Toxicity Information

Product Specific Target Organ Toxicity Repeat Dose 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.

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Ingredient Specific Target Organ Toxicity Repeat Exposure Data

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

Product Carcinogenicity Data

Oral Exposure RouteNo data availableDermal Exposure RouteNo data availableInhalation (Dust/Mist) Exposure RouteNo data availableInhalation (Vapor) Exposure RouteNo data availableInhalation (Gas) Exposure RouteNo data available

Ingredient Carcinogenicity Data

ingredient darcinogenicity bata						
Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA	
Sodium hydroxide	1310-73-2	-	-	-	-	

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)	

Oral Exposure Route

Dermal Exposure Route

If available, see data below

Product Germ Cell Mutagenicity invitro **Data**

No data available.

Ingredient Germ Cell Mutagenicity invitro Data

If available, see data below

Product Germ Cell Mutagenicity invivo Data

Oral Exposure RouteNo data availableDermal Exposure RouteNo data availableInhalation (Dust/Mist) Exposure RouteNo data availableInhalation (Vapor) Exposure RouteNo data availableInhalation (Gas) Exposure RouteNo data available

Ingredient Germ Cell Mutagenicity invivo Data

Oral Exposure Route

Dermal Exposure Route

If available, see data below

Product Reproductive Toxicity Data

Oral Exposure Route

Dermal Exposure Route
Inhalation (Dust/Mist) Exposure Route
Inhalation (Vapor) Exposure Route
Inhalation (Gas) Exposure Route

Ingredient Reproductive Toxicity Data

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Oral Exposure Route 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 If available, see data below

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product Ecological Data

Aquatic toxicity

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

Ingredient Ecological Data

Aquatic toxicity

Fish If available, see ingredient data below

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sodium hydroxide (<0.1%)	96 hours	Oncorhynchus mykiss	LC ₅₀	45.4 mg/L	IUCLID (The International Uniform Chemical Information
CAS#: 1310-73-2			L	naradiant data k	Database)

_	rustacea II available, see ingredient data			ngredient data t	eiow	
Chemical name Exposure		Exposure	Species	Endpoint	Reported	Key literature references and
		time		type	dose	sources for data
Ī	Sodium hydroxide	48 Hours	Daphnia sp.	EC ₅₀	40.4 mg/L	IUCLID (The International
1	(<0.1%)				_	Uniform Chemical Information
1	CAS#: 1310-73-2					Database)

Algae

If available, see ingredient data below

Other Information

Persistence and degradability

Product Biodegradability Data

No data available.

Ingredient Biodegradability Data

Bioaccumulation

Product Bioaccumulation Data

No data available.

Partition Coefficient (n-octanol/water) Not applicable

Ingredient Bioaccumulation Data

Mobility

Soil Organic Carbon-Water Partition Coefficient Not applicable

Water solubility

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

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.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

U.S. 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 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 Complies **KECL** Complies **PICCS** 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

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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 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
Sodium hydroxide 1310-73-2	1000 lb	-	-	X

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

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	X	X	X
1310-73-2			

U.S. EPA Label Information

Chemical name	FIFRA	FDA	
Sodium hydroxide	180.0910	21 CFR 184.1763	

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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

ſ	NFPA	Health hazards - 0	Flammability - 0	Instability - 0	Physical and Chemical
					Properties -
ſ	HMIS	Health hazards - 0	Flammability - 0	Physical Hazards - 0	Personal protection - X
					- See section 8 for more
					information

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

NIOSH IDLH Immediately Dangerous to Life or Health

ACGIH ACGIH (American Conference of Governmental Industrial Hygienists)

NDF 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

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 12-Feb-2018

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Revision Note None

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

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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

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