Printing date 05/19/2023

Reviewed on 05/19/2023

1 Identification

- · Product identifier
- · Trade name: Sodium Hydroxide 0.01 Normal Solution
- · Article number: VUL446
- · Details of the supplier of the safety data sheet · Manufacturer/Supplier: Aqua Solutions, Inc. 6913 Highway 225

DEER PARK, TX 77536 USA 800-256-2586

- · Information department: Technical Coordinator Sherman Nelson shermann@aquasolutions.org · Emergency telephone number:
- Chemtrec: 800-424-9300 Canutec: 613-996-6666

2 Hazard(s) identification



· Classification of the substance or mixture The product is not classified, according to the Globally Harmonized System (GHS).

- · Label elements
- · GHS label elements Not Applicable
- · Hazard pictograms Not Applicable
- · Signal word Not Applicable
- · Hazard statements Not Applicable
- · Precautionary statements
- If swallowed: Call a poison center/doctor if you feel unwell.
- If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Store in a closed container.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 0Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)

HEALTH 0 Health = 00 Fire = 0**REACTIVITY** O Reactivity = 0

· Other hazards

FIRE

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

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3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components: Not Applicable

· Table of Nonhazardous Ingredients			
CAS: 7732-18-5	Water	99.96%	
CAS: 1310-73-2	Sodium Hydroxide	0.04%	

4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures Not required.

• Environmental precautions: Dilute with plenty of water.

• *Methods and material for containment and cleaning up:* Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to section 13.

· Reference to other sections

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.
- Protective Action Criteria for Chemicals

· PAC-1:

CAS: 1310-73-2 Sodium Hydroxide

 $0.5 \, mg/m^3$

· PAC-2:

CAS: 1310-73-2 Sodium Hydroxide

 $5 mg/m^3$ (Contd. on page 3)

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 50 mg/m^3

• PAC-3:

CAS: 1310-73-2 Sodium Hydroxide

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see section 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:
- The usual precautionary measures for handling chemicals should be followed.
- · Breathing equipment: Not required.
- · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation \cdot **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection: Goggles recommended during refilling.

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· Body protection: Protective work clothing

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Information on basic physical and chemical properties					
General Information	······································				
Appearance:					
Form:	Liquid				
Color:	Colorless				
· Odor: · Odor threshold:	Odorless Not determined.				
· pH-value:	Not determined.				
-					
• Change in condition Melting point/Melting range:	0 °C (32 °F)				
Boiling point/Boiling range:	$100 ^{\circ}C (212 ^{\circ}F)$				
Flash point:	Not applicable.				
· Flammability (solid, gaseous):	Not applicable.				
• Decomposition temperature:	Not determined.				
Ignition temperature:	Product is not selfigniting.				
Danger of explosion:	Product does not present an explosion hazard.				
· Explosion limits:					
Lower:	Not determined.				
Upper:	Not determined.				
• Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)				
• Density at 20 °C (68 °F):	1.00045 g/cm ³ (8.34876 lbs/gal)				
· Relative density	Not determined.				
· Vapor density	Not determined.				
· Evaporation rate	Not determined.				
\cdot Solubility in / Miscibility with					
Water:	Fully miscible.				
· Partition coefficient (n-octanol/water): Not determined.					
· Viscosity:					
Dynamic:	Not determined.				
Kinematic:	Not determined.				
· Solvent content:					
Water:	100.0 %				
VOC content:	0.00 %				
	0.0 g/l / 0.00 lb/gal				
Solids content:	0.0 %				
• Other information	No further relevant information available.				

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10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Not hazardous for water.
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

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13 Disposal considerations

- \cdot Waste treatment methods
- $\cdot \textit{Recommendation: Smaller quantities can be disposed of with household waste.}$
- · Uncleaned packagings:
- *Recommendation:* Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

Transport information		
· UN-Number · DOT, ADN, IMDG, IATA	Not regulated	
UN proper shipping name	Not movel at a	
DOT, ADN, IATA IMDG	Not regulated Not Regulated Not regulated	
Transport hazard class(es)		
DOT, ADN, IMDG, IATA Class	Not regulated	
Packing group DOT, IMDG, IATA	Not regulated	
Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex . MARPOL73/78 and the IBC Code	II of Not applicable.	
UN "Model Regulation":	Not regulated	

15 Regulatory information

• Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

· Sara

• Section 355 (extremely hazardous substances):					
None of the ingredients is listed.					
· Section 313 (Specific toxic chemical listings):					
None of the ingredients is listed.					
· TSCA (Toxic Substances Control Act):					
Water	ACTIVE				
Sodium Hydroxide	ACTIVE				
· Hazardous Air Pollutants					
None of the ingredients is listed.					
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· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

\cdot Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · GHS label elements Not Applicable
- · Hazard pictograms Not Applicable
- · Signal word Not Applicable
- · Hazard statements Not Applicable

· Precautionary statements

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Store in a closed container.

- Dispose of contents/container in accordance with local/regional/national/international regulations.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• Department issuing SDS: Environment protection department.

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    Date of preparation / last revision
Revision 1.0 05/19/2023, reviewed SDS for accuracy. S.T.N.
Revision 1.0, 01-12-2023: Reviewed SDS for Accuracy. STN
05/19/2023
    Abbreviations and acronyms:
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IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) PBT: Persistent, Bioaccumulative and Toxic

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[·] Contact:

US

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vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit • * Data compared to the previous version altered.