

Precautionary Statements - Response

Immediately call a poison center or doctor/physician
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a poison center or doctor/physician
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Immediately call a poison center or doctor/physician
 IF SWALLOWED: rinse mouth. Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Unknown Acute Toxicity

1.4% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Sodium hydroxide	1310-73-2	<10
Sodium Silicate	1344-09-8	<10
Sodium carbonate	497-19-8	<10

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

- Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
- Skin Contact** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
- Inhalation** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
- Ingestion** IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

Most important symptoms and effects

Symptoms Causes severe skin burns and eye damage.

Indication of any immediate medical attention and special treatment needed

Notes to Physician 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 Not determined.

Specific Hazards Arising from the Chemical

Material is corrosive.

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

Personal precautions, protective equipment and emergency procedures

- Personal Precautions** Use personal protective equipment as required.
- Environmental Precautions** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

Methods and material for containment and cleaning up

- Methods for Containment** Prevent further leakage or spillage if safe to do so.
- Methods for Clean-Up** Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

- Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands, and any exposed skin thoroughly after handling.

Conditions for safe storage, including any incompatibilities

- Storage Conditions** Keep container tightly closed and store in a cool, dry and well-ventilated place. Keep out of the reach of children. Store locked up.
- Incompatible Materials** Acids. Oxidizing agents. Bleach. Do not mix with other chemicals or cleaners.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide 1310-73-2	Ceiling: 2 mg/m ³	TWA: 2 mg/m ³ (vacated) Ceiling: 2 mg/m ³	IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³

Appropriate engineering controls

- Engineering Controls** Apply technical measures to comply with the occupational exposure limits. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Wear approved safety goggles where a splash hazard exists.
- Skin and Body Protection** Wear suitable protective clothing.

Respiratory Protection Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations Wash contaminated clothing before reuse. Wash face, hands and any exposed skin thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Odor	None
Appearance	Clear red liquid	Odor Threshold	Not determined
Color	Red		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	13.5	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	100 °C / 212 °F	IBP
Flash Point	None to boiling	Tag Closed Cup
Evaporation Rate	Equal to water	
Flammability (Solid, Gas)	Liquid- not applicable	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	1.08	
Water Solubility	Soluble in water	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Thin	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
VOC Content (%)	<0.25	
Density	8.98 lb/gal	

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid
Keep out of reach of children.

Incompatible Materials
Acids. Oxidizing agents. Bleach. Do not mix with other chemicals or cleaners.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium hydroxide 1310-73-2		45.4: 96 h Oncorhynchus mykiss mg/L LC50 static		
Sodium Silicate 1344-09-8		301 - 478: 96 h Lepomis macrochirus mg/L LC50 3185: 96 h Brachydanio rerio mg/L LC50 semi-static		216: 96 h Daphnia magna mg/L EC50
Sodium carbonate 497-19-8	242: 120 h Nitzschia mg/L EC50	300: 96 h Lepomis macrochirus mg/L LC50 static 310 - 1220: 96 h Pimephales promelas mg/L LC50 static		265: 48 h Daphnia magna mg/L EC50
Tetrasodium EDTA 64-02-8	1.01: 72 h Desmodesmus subspicatus mg/L EC50	41: 96 h Lepomis macrochirus mg/L LC50 static 59.8: 96 h Pimephales promelas mg/L LC50 static		610: 24 h Daphnia magna mg/L EC50
Trade Secret	19000: 96 h Pseudokirchneriella subcapitata mg/L EC50	51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50		10000: 24 h Daphnia magna mg/L EC50 1000: 48 h Daphnia magna mg/L EC50 Static

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

Other Adverse Effects

Not determined

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

Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Sodium hydroxide 1310-73-2	Toxic Corrosive
Sodium carbonate 497-19-8	Corrosive

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No UN3266
Proper Shipping Name Corrosive liquid, basic, inorganic, n.o.s. (contains Sodium Hydroxide)
Hazard Class 8
Packing Group II

IATA

UN/ID No UN3266
Proper Shipping Name Corrosive liquid, basic, inorganic, n.o.s. (contains Sodium Hydroxide)
Hazard Class 8
Packing Group II

IMDG

UN/ID No UN3266
Proper Shipping Name Corrosive liquid, basic, inorganic, n.o.s. (contains Sodium Hydroxide)
Hazard Class 8
Packing Group II

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Sodium hydroxide	Present	X		Present		Present	X	Present	X	X
Sodium Silicate	Present	X		Present		Present	X	Present	X	X
Sodium carbonate	Present	X		Present		Present	X	Present	X	X

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*
- DSL/NDSL - 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*
- IECSC - China Inventory of Existing Chemical Substances*
- KECL - Korean Existing and Evaluated Chemical Substances*
- PICCS - Philippines Inventory of Chemicals and Chemical Substances*
- AICS - Australian Inventory of Chemical Substances*

US Federal Regulations

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

SARA 313

Not determined

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sodium hydroxide 1310-73-2	X	X	X
Trade Secret	X		X

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	3	0	0	Cor
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	3	0	0	X

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet