

Sodium Hydroxide	CAS 1310-73-2	20-40%
Sodium Carbonate	CAS 497-19-8	20-40%
Sodium Metasilicate	CAS 6834-92-0	5-10%
Dichloroisocyanuric acid, sodium salt	CAS 2893-78-9	1-5%

There are no additional ingredients present which, within the current knowledge of the manufacturer and in the concentrations applicable, are classified as hazardous to health or to the environment and hence require reporting in this section. Concentration percentages are given as a claim for a trade secret is being made.

Section 4: First Aid Measures

First Aid Measures:	Product as Sold
General:	Never give anything by mouth to an unconscious person. If you feel unwell, then seek medical assistance.
If swallowed:	Rinse mouth, do not induce vomiting.
If on skin:	Wash with water, remove contaminated clothing.
Inhalation:	Remove person to fresh air - administer artificial respiration if not breathing.
If in eye:	Flush continuously with water - remove contacts and continue flushing with water.
Treatment:	Seek medical assistance if symptoms persist.
Important Symptoms and Effects,	both Acute and Delayed
Symptoms/Injuries:	Causes severe skin burns and eye damage. Effects of exposure may be delayed.
If swallowed:	Ingestion is likely to be harmful and have adverse health effects.
If on skin:	Causes skin burns.
Inhalation:	Symptoms may cause irritation to the respiratory tract.
If in eye:	Causes eye damage.
Recommendation:	Seek medical assistance if symptoms persist or concerns are present.
First Aid Providers	All first aid providers should receive proper training before performing any first aid act that would involve personal risk. Wash contaminated clothing with water thoroughly before removal or wear gloves.

Section 5: Firefighting Measures

Suitable Fire Extinguishing Media:	No special media necessary. Use extinguishing media appropriate for surrounding fire.
Special Hazards:	Product is non flammable and is not explosive. Product is corrosive to metals as sold.
Advice for Firefighters:	Exercise caution when fighting any chemical fire. Use a water spray to cool containers. Do not enter fire area without proper protective equipment, including respiratory protection.

Section 6: Accidental Release Measures

Personal Precautions:	Initiate company's spill procedures. Do not walk through or touch spilled product. Do not get on skin, in eyes, or on clothing. Put on appropriate personal protection equipment.
Environmental Precautions:	Avoid runoff into public waterways, sewers, or onto soil.
Methods for Clean Up:	Follow company's spill procedures. Put on appropriate protective clothing. Neutralize/absorb spilled product with inert material. Dispose of inert material by placing in suitable container. Dispose of waste safely. Rinse with water for a final clean up.

Section 7: Handling and Storage

Precautions for Safe Handling:	Do not get on skin, in eyes, or on clothing. Do not breathe vapor or mist. Do not handle until all safety procedures have been read and understood. Wash hands and other exposed areas with soap and water after handling.
Conditions for Safe Storage:	Keep product in original container, in an upright position, with container tightly closed. Keep out of reach of children.

Section 8: Exposure Controls/Personal Protection

Control parameters:

Ingredient Name	Exposure Limits	
Sodium Hydroxide	USA ACGIH Ceiling	2 mg/m ³
	NIOSH REL	2 mg/m ³
	OSHA PEL (TWA)	2 mg/m ³

Product as Sold

Engineering Controls: Use adequate ventilation. Keep vapor/fumes below statutory limits. Provide availability to water to flush skin or eyes in case of exposure.

Personal Protection:

Hand protection: Wear chemical resistant gloves

Eye protection: Use chemical splash goggles. For severe exposure, wear face shield.

Skin protection: Wear suitable protective clothing.

Respiratory protection: Not necessary under normal operating and intended use of this product.

General: Wash hands, face, and arms after handling chemical products and before eating, drinking, or using restroom. Wash contaminated clothing before wearing again.

Section 9: Physical and Chemical Properties

Product as Sold

Physical state:	Powder
Color:	White
Odor:	Chemical
pH:	12-14
Evaporation rate:	No data available
Melting point:	No data available
Freezing point:	No data available
Boiling point:	No data available
Flash point:	No data available
Explosion limits:	No data available
Flammability (solid/gas):	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	>1 (water=1)
Solubility:	No data available
Decomposition temperature:	No data available

Section 10: Stability and Reactivity

Reactivity:	Corrosive to metals.
Chemical stability:	Stable.
Hazardous Reactions:	Hazardous polymerization will not occur.
Conditions to Avoid:	Direct sunlight. Extreme temperatures. Contact with metal.
Incompatible Materials:	Strong acids. Strong bases. Strong oxidizers. Metals.
Hazardous Decomposition Products:	Under normal conditions of storage and use, hazardous decomposition products should not occur.

Section 11: Toxicological Information

Routes of Exposure: Ingestion. Skin contact. Inhalation. Eye contact.

Product as Sold

Symptoms:	Ingestion:	Adverse effects: stomach pains
	Skin Contact:	Adverse effects: irritation, redness, blisters
	Inhalation:	Adverse effects: cough, respiratory irritation
	Eye Contact:	Adverse effects: redness, watering, irritation
Acute Toxicity:	Ingestion:	May cause burns to mouth, throat, stomach
	Skin Contact:	May cause skin burns
	Inhalation:	May cause respiratory irritation
	Eye Contact:	May cause serious eye damage.

Toxicity Data:	Sodium Hydroxide (1310-73-2)	LD50 dermal rabbit	1350 mg/kg
	Sodium Carbonate (497-19-8)	LD50 oral rat	4090/mg/kg
	Sodium Metasilicate (6834-92-0)	LD50 oral rat	600 mg/kg
	Dichloroisocyanuric acid, sodium salt (2893-78-9)	LD50 oral rat	735 mg/kg
	Dichloroisocyanuric acid, sodium salt (2893-78-9)	LD 50 dermal rat	>5000mg/kg
	Dichloroisocyanuric acid, sodium salt (2893-78-9)	LD dermal rabbit	>2000 mg/kg
	Dichloroisocyanuric acid, sodium salt (2893-78-9)	LC inhalation rat (mg/l)	>50 mg/l 1 hour

Carcinogenicity: No known effects or critical hazards
 Reproductivity: No known effects or critical hazards

Section 12: Ecological Information

Toxicity:			Exposure	Species
	Sodium Hydroxide (1310-73-2)	LC50 Fish 1	45.4 mg/l 96 h	Oncorhynchus mykiss [static]
	Sodium Carbonate (497-19-8)	LC50 Fish 1	300 mg/l 96h	Lepomis Macrochirus [static]
	Sodium Carbonate (497-19-8)	EC 50 Daphnia	265/mg/l 48 h	Daphnia magna
	Sodium Carbonate (497-19-8)	EC 50 Other	242mg/l 120 h	Nitzschia
	Sodium Carbonate (497-19-8)	LC50 Fish 2	310-1220 mg/l 96h	Pimpephales promelas [static]
	Sodium Metasilicate (6834-92-0)	LC50 Fish 1	210 mg/l 96 h	Brachydanio rerio [semi-static]
	Sodium Metasilicate (6834-92-0)	EC50 Daphnia	1216 mg/l 96 h	Daphnia magna
	Sodium Metasilicate (6834-92-0)	LC50 Fish 2	210 mg/l 96 h	Brachydanio rerio

Dichloroisocyanuric acid, sodium salt (2893-78-9)	LC50 Fish 1	.25-1 mg/l	96h	Lepomis Macrochirus [static]
Dichloroisocyanuric acid, sodium salt (2893-78-9)	EC 50 Daphnia	.00021mg/	48 h	Daphnia magna
Dichloroisocyanuric acid, sodium salt (2893-78-9)	LC50 Fish 2	.0389mg/l	96h	Lepomis Macrochirus [flow]
Dichloroisocyanuric acid, sodium salt (2893-78-9)	EC50 Daphnia	1.16 mg/l	48 h	Daphnia magna

Persistence and degradability: Not established
 Bioaccumulative potential: Not established
 Mobility in Soil: Not established
 Other adverse effects: None noted

Section 13: Disposal Considerations

Product as Sold

Disposal methods: Dispose of waste in accordance with local, regional, and national regulations

Section 14: Transport Information

In accordance with: ICAO/IATA/DOT/TDG

Product as Sold

DOT Classification: UN 1759
 DOT Shipping name: Corrosive Solid Sodium Hydroxide
 Class: 8
 Packing Group: III
 Bulk Transport: See shipping documents for specific transportation information
 Marine Pollutant: No

Section 15: Regulatory Information

US Federal Regulations:

TSCA 8(b) Inventory	All components are listed or exempted
SARA 304	No chemicals subject to reporting
SARA 311/312	Acute health hazard
SARA 302	No chemicals subject to reporting
SARA 313	No chemicals subject to reporting

Section 16: Other Information

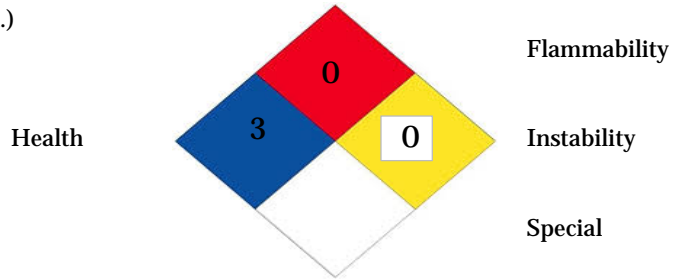
Product as Sold

Hazardous Material Information System:

Health	3
Flammability	0

Physical Hazards	0
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National Fire Protection Association (U.S.A.)



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