

SAFETY DATA SHEET 36-1002 Concentrated Bleach

1. Identification of the Substance / Preparation and of the Company / Undertaking

Product Name: Concentrated Bleach
UN/ID No UN-1791
Synonyms: Sodium hypochlorite; bleach; hypochlorous acid, sodium salt
Formula: NaOCl
Molecular Weight: 74.45
Company Name:
Needels Supply
444 Wacouta Street
St. Paul, MN 55101
Emergency Telephone:
CHEMTREC (US): 1-800-424-9300

2. Hazards Identification

GHS - Classification

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1 Category 1B
Serious eye damage/eye irritation	Category 1
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1



Signal Word:

Danger

Hazard Statements:

- Harmful if swallowed
 - Causes severe skin burns and eye damage
 - Very toxic to aquatic life with long lasting effects
- Physical Hazards**

Corrosive to metals	Category 1
Oxidizing liquids	Category 2

- May be corrosive to metals
- May intensify fire; oxidizer



Precautionary Statements:

- P270 - Do not eat, drink or smoke when using this product
- P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- P330 - Rinse mouth

- P260 - Do not breathe dust/fume/gas/mist/vapors/spray
- P264 - Wash face, hands and any exposed skin thoroughly after handling
- 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
- 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
- P501 - Dispose of contents/container to industrial incineration plant
- P273 - Avoid release to the environment
- P501 - Dispose of contents/ container to an approved waste disposal plant
- P334 - Immerse in cool water/wrap in wet bandages
- P390 - Absorb spillage to prevent material damage
- P406 - Store in corrosive resistant aluminum container with a resistant inliner
- P210 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking
- P220 - Keep/Store away from clothing/ combustible materials
- P221 - Take any precaution to avoid mixing with combustibles
- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
- P501 - Dispose of contents/container to industrial incineration plant

3. Composition / Information on Ingredients

Hazardous

Chemical Name	CAS No	Weight-%	EC No
Caustic soda	1310-73-2	0.8	215-185-5
Sodium hypochlorite	7681-52-9	10-15.6	231-668-3

4. First Aid Measures

General Advice:	Immediate medical attention is required.
Eye Contact:	Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.
Skin Contact:	Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Inhalation:	Move to fresh air. Call a physician or poison control center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Ingestion:	Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Remove from exposure, lie down. Clean mouth with water and drink afterwards plenty of water. Call a physician or poison control center immediately.

Note to Physicians: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.

Self-protection of the First Aider: Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

5. Fire-fighting Measures

Flammable Properties:

Not considered to be a fire hazard; Substance releases oxygen when heated, which may increase the severity of an existing fire; Containers may rupture from pressure building up

Explosive Properties:

Not considered to be an explosion hazard

Suitable Extinguishing Media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment; Use water spray to cool fire-exposed containers, to dilute liquid, and control vapor

Unsuitable Extinguishing Media:

No information available

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

Protective Equipment and Precautions for Firefighters:

In the event of a fire, wear full protective clothing and MSHA/NIOSH (approved or equivalent) self-contained breathing apparatus with full facepiece operated in the pressure-demand or other positive pressure mode

6. Accidental Release Measures

Personal Precautions:

Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

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.

Methods for Cleaning Up:

Soak up with inert absorbent material. Clean contaminated surface thoroughly. Dike far ahead of liquid spill for later disposal. Take up mechanically, placing in appropriate containers for disposal. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.

Other Information:

Not applicable.

7. Handling and Storage

Advice on Safe Handling:

Use personal protective equipment as required. Use only with adequate ventilation. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.

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.

Incompatible Materials: Strong acids and bases; Oxidizing agents; Ammonia (Chloramine gas may evolve), Amines, Ammonium salts, Aziridine, Methanol, Phenyl Acetonitrile, Cellulose, Ethyleneimine, Oxidizable Metals, Acids, Soaps, and Bisulfates.

8. Exposure Controls / Personal Protection

Exposure Guidelines

Chemical Name		ACGIH TLV		OSHA PEL		Ontario TWA
Caustic soda		Ceiling: 2 mg/m ³		2 mg/m ³ Ceiling 2 mg/m ³ TWA		CEV: 2 mg/m ³
Chemical Name	European Union	China	Japan	Korea	Australia	Taiwan
Caustic soda		Ceiling: 2 mg/m ³ Ceiling	Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³	2 mg/m ³ Peak	TWA: 2 mg/m ³

Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

Engineering Controls: Ensure adequate ventilation, especially in confined areas

Personal protective equipment (PPE)

Eye/Face Protection: Tight sealing safety goggles. Face protection shield.

Body Protection: Gloves made of plastic or rubber. Rubber boots. Suitable protective clothing. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear chemical resistant clothing such as gloves, apron, boots or whole bodysuits made from neoprene, as appropriate.

General Hygiene Considerations:

Wash contaminated clothing before reuse. When using do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid

Appearance:	Aqueous solution	Odor:	Odorless, Chlorine-like odor
Color:	Colorless to yellowish	Odor Threshold:	No information available
Property pH:	Values	Remarks • Method >10	
"Salt Out" Point (°F):	11	No information available	
Melting Point/Freezing Point:		12.5%	
Boiling Point/Boiling Range:	-26 °C / -15 °F	Decomposes slightly	
Flash Point:	104 °C / 219.2 °F	No information available	
Evaporation Rate (BuAc=1):	NA	No information available	
Flammability (solid, gas):		No information available	
Flammability Limits in Air:		No information available	
Upper Flammability Limit:			
Lower Flammability Limit:			
Vapor Pressure (mm Hg) :		Dependent on concentration	
Vapor density (Air =1)		No information available	
Specific Gravity (H₂O=1):			
Specific Gravity (2nd value):	1.2		
Water Solubility:		No information available	
Solubility(ies):	100% soluble in water	No information available	
Partition Coefficient (n-octanol/water)		No information available	
Autoignition Temperature:		No information available	
Decomposition Temperature:		No information available	
Kinematic Viscosity:		No information available	
Dynamic Viscosity:		No information available	
	No information available		
Explosive Properties:	Not considered to be an explosion hazard		

9.2. Other information

Softening Point:	No information available
Molecular Weight:	74.45
VOC Content(%):	No information available
Density:	No information available
Bulk Density:	No information available

10. Stability and Reactivity

Stability:	Slowly decomposes on contact with air. Rate increases with the concentration and temperature. Exposure to sunlight accelerates decomposition. Sodium hypochlorite becomes less toxic with age
Conditions to Avoid:	Exposure to air or moisture over prolonged periods; Incompatibles; Exposure to light; Heat, flames and sparks
Incompatible Materials:	Strong acids and bases; Oxidizing agents; Ammonia (Chloramine gas may evolve), Amines, Ammonium salts, Aziridine, Methanol, Phenyl Acetonitrile, Cellulose, Ethyleneimine, Oxidizable Metals, Acids, Soaps, and Bisulfates.
Hazardous Decomposition Products:	Thermal decomposition can lead to release of irritating and toxic gases and vapors; Emits toxic chlorine fumes when heated to decomposition; Sodium oxides
Possibility of Hazardous Reactions:	None under normal processing

11. Toxicological Information

Product Information

Acute Toxicity: 0% of the mixture consists of ingredient(s) of unknown toxicity. **The following values are calculated based on chapter 3.1 of the GHS document**

Chemical Name	Oral LD ₅₀ :	Dermal LD ₅₀ :	LC ₅₀ (Lethal Concentration):
Caustic soda		1350 mg/kg (Rabbit)	
Sodium hypochlorite	8200 mg/kg (Rat)	10000 mg/kg (Rabbit)	

Chronic Toxicity:

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen

Chemical Name	IARC
Sodium hypochlorite	Group 3

IARC (International Agency for Research on Cancer) Not classifiable as a human carcinogen

12. Ecological Information

Ecotoxicity

84.2% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Toxic to aquatic life with long lasting effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Caustic soda		45.4: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static	
Sodium hypochlorite	0.095: 24 h <i>Skeletonema costatum</i> mg/L EC50	0.06 - 0.11: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 4.5 - 7.6: 96 h <i>Pimephales promelas</i> mg/L LC50 static 0.4 - 0.8: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 0.28 - 1: 96 h <i>Lepomis macrochirus</i> mg/L LC50 flow-through 0.05 - 0.771: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through 0.03 - 0.19: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 semi-static 0.18 - 0.22: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static	2.1: 96 h <i>Daphnia magna</i> mg/L EC50 0.033 - 0.044: 48 h <i>Daphnia magna</i> mg/L EC50 Static

Ceriodaphnia dubia Acute Toxicity Evaluation:

Azone 15: 48-hour NOEC: 0.25 ppm, 48-hour LOEC: 0.5 ppm, 48-hour LC₅₀: 0.44 ppm (0.37 - 0.52 ppm)

Persistence and Degradability:

No information available.

Bioaccumulation:

No information available.

Mobility:

No information available.

13. Disposal Considerations

Waste from Residues/Unused Products:

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

Contaminated Packaging:

Do not reuse container.

14. Transport Information

DOT

Proper shipping name

HYPOCHLORITE SOLUTIONS (SODIUM HYPOCHLORITE)

Hazard Class

8

UN/ID No UN-1791
 Packing Group III
 Reportable Quantity (RQ) 100 lbs
 Description UN1791, HYPOCHLORITE SOLUTIONS (SODIUM HYPOCHLORITE), 8, PG III



15. Regulatory Information

International Inventories

All of the components in the product are on the following Inventory lists: TSCA (United States);, Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), South Korea (KECL);, China (IECSC), ENCS (Japan);, Philippines (PICCS), This product contains a substance not listed on international inventories - it is for research and development use only.

AICS Complies
 TSCA Complies
 DSL/NDSL Complies
 EINECS/ELINCS Complies
 ENCS Complies
 IECSC Complies
 KECL Complies
 PICCS Complies

Chemical Name	AICS	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS
Caustic soda	Listed	Listed	Listed	-	Listed	-	(2)-1972 (1)-410	Listed	KE-31487	Listed
Sodium hypochlorite	Listed	Listed	Listed	-	Listed	-	(1)-237	Listed	KE-31506	Present

Inventory Legend

AICS - Australian Inventory of Chemical Substances
 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

RESTRICTIONS - REACH TITLE VII No information available

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)

Chemical Name	CERCLA Hazardous Substances and the Reportable Quantities	SARA Extremely Hazardous Substances EPCRA RQ	SARA Extremely Hazardous Substances TPQ
Caustic soda	1000 lb 454 kg	-	-
Sodium hypochlorite	100 lb 45.4 kg	100 lb	-

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	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive hazard	Yes

U.S. State Right-to-Know Regulations

California Proposition 65:

This product does not contain any Proposition 65 chemicals

16. Other Information

National Fire Protection Association (NFPA) Ratings



NSF Certification



Maximum Use (mg/L unless otherwise indicated): 84

Revision Date: 12/1/2014

Disclaimer:

Please be advised that it is your responsibility to inform your employees of the hazards of this substance, to advise them of what these properties mean and be sure they understand exposure information. 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 presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. No warranty or guaranty, express or implied, is made regarding performance, stability, or otherwise. This information is not intended to be all-inclusive as to the manner and conditions of use, handling, and storage. Other factors may require additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, the handling and use remains the responsibility of the consumer. No suggestions are intended as, and should not be constructed as, a recommendation to infringe on any existing patents or to violate any Federal, State, or local laws.

