



SAFETY DATA SHEET

Version 2

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

Product Name: Azone 15 - EPA Reg. No. 7870-5
UN/ID No UN1791
Synonyms: Sodium hypochlorite; bleach; hypochlorous acid, sodium salt
Recommended Use Industrial, Manufacturing or Laboratory use.
Manufacturer
 Hawkins, Inc., 2381 Rosegate, Roseville, MN 55113 (612-331-6910)
Emergency Telephone:
 CHEMTREC (US): 1-800-424-9300

2. Hazards Identification

GHS - Classification

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
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:

- Keep away from heat/sparks/open flames/hot surfaces. — No smoking
- Keep/Store away from clothing/ combustible materials
- Take any precaution to avoid mixing with combustibles
- Do not breathe dust/fume/gas/mist/vapors/spray

- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Avoid release to the environment
- Wear protective gloves/protective clothing/eye protection/face protection
- Immediately call a POISON CENTER or doctor/physician
- Rinse mouth
- Immerse in cool water/wrap in wet bandages
- Wash contaminated clothing before reuse
- Absorb spillage to prevent material damage
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
- Store locked up
- Store in corrosive resistant aluminum container with a resistant inliner
- Dispose of contents/container to industrial incineration plant
- Dispose of contents/ container to an approved waste disposal plant
- Dispose of contents/container to industrial incineration plant

3. Composition / Information on Ingredients

Hazardous

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

4. First Aid Measures

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention.
Eye contact	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. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
Skin contact	IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. Get immediate medical advice/attention.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical advice/attention.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation.

Indication of any immediate medical attention and special treatment needed

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.

5. Fire-fighting Measures

Suitable Extinguishing Media	Use water. Do not use dry chemicals or foams. CO ₂ or Halon may provide limited control. Flood fire area with water from a distance. Move containers from fire area if you can do it without risk. Cool containers with flooding quantities of water until well after fire is out.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Dry chemical. Foam. CAUTION: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	These substances will accelerate burning when involved in a fire. Some may decompose explosively when heated or involved in a fire. May ignite combustibles (wood, paper, oil, clothing, etc.). Runoff may create fire or explosion hazard. The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.
Explosion Data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	Yes.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. Do not move cargo or vehicle if cargo has been exposed to heat. Oxidizer. May ignite combustibles (wood, paper, oil, clothing, etc.). Move containers from fire area if you can do it without risk. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	
Personal precautions	Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See section 8 for more information. Stop leak if you can do it without risk. Use personal protective equipment as required. Attention! Corrosive material.
Other information	Keep combustibles (wood, paper, oil, etc) away from spilled material. DO NOT GET WATER INSIDE CONTAINERS. Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
Methods and material for containment and cleaning up	
Methods for containment	Dike far ahead of spill; use dry sand to contain the flow of material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Stop leak if you can do it without risk. Keep out of drains, sewers, ditches and waterways.
Methods for cleaning up	Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Flush area with flooding quantities of water. Prevent product from entering drains.

7. Handling and Storage

Precautions for safe handling	
Advice on safe handling	Use personal protection equipment. Avoid contact with skin, eyes or clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Handle in accordance with good industrial hygiene and safety practice. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Take off contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Do not store near combustible materials. Store in accordance with the particular national regulations. Store in accordance with local regulations. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

8. Exposure Controls / Personal Protection**Control parameters****Exposure Limits**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium Hydroxide 1310-73-2	Ceiling: 2 mg/m ³	2 mg/m ³ Ceiling 2 mg/m ³ TWA	IDLH: 10 mg/m ³ Ceiling: 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).

Appropriate engineering controls**Engineering controls**

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Tight sealing safety goggles. Face protection shield.

Hand protection

Wear suitable gloves. Impervious gloves.

Skin and body protection

Wear suitable protective clothing. Gloves made of plastic or rubber. Rubber boots. 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.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

9. Physical and Chemical Properties**9.1. Information on basic physical and chemical properties**

Physical State:	Liquid	Odor:	Odorless, Chlorine-like odor
Appearance:	Aqueous solution	Odor Threshold:	No information available
Color:	Colorless to yellowish		
Property	Values	Remarks • Method	
pH:	11	>10	
"Salt Out" Point (°F):		No information available	
Melting Point/Freezing Point:	-26 °C / -15 °F	12.5%	
Boiling Point/Boiling Range:	104 °C / 219 °F	Decomposes slightly	
Flash Point:		No information available	
Evaporation Rate (BuAc=1):		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):	1.2		
Specific Gravity (2nd value):			
Water Solubility:	100% soluble in water		
Solubility(ies):		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
Oxidizing Properties:	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
Liquid Density	No information available
Bulk density	No information available

10. Stability and Reactivity

Reactivity	Oxidizer.
Chemical stability	May cause fire or explosion; strong oxidizer. Slowly decomposes on contact with air. Rate increases with the concentration and temperature. Sodium hypochlorite becomes less toxic with age. Exposure to sunlight accelerates decomposition.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Exposure to air or moisture over prolonged periods. Incompatible materials. Exposure to light. Heat, flames and sparks.
Incompatible Materials	Organic material. Combustible material. Hydrocarbons. Oxidizing agent. Strong acids. Strong bases. Ammonia. Amines. Acids. Ammonium salts, Aziridine, Methanol, Phenyl Acetonitrile, Cellulose, Ethyleneimine, Oxidizable Metals, Soaps, Bisulfates.
Hazardous decomposition products	Thermal decomposition can lead to release of irritating and toxic gases and vapors. Sodium oxides. Emits toxic chlorine fumes when heated to decomposition.

11. Toxicological Information**Information on likely routes of exposure****Product Information**

Inhalation	Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal.
Eye contact	Specific test data for the substance or mixture is not available. Causes burns. (based on components). Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.
Skin contact	Specific test data for the substance or mixture is not available. May cause irritation.
Ingestion	Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness. Coughing and/ or wheezing.

Numerical measures of toxicity

No information available

Acute Toxicity:

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	526.70 mg/kg
ATEmix (dermal)	10,543.90 mg/kg
ATEmix (inhalation-vapor)	26.30 mg/l

Unknown Acute toxicity 99.2 % of the mixture consists of ingredient(s) of unknown toxicity
84.2 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

15392 Azone 15 - EPA Reg. No. 7870-5

84.2 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
 99.2 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
 84.2 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
 99.2 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Chemical name	Oral LD ₅₀ :	Dermal LD ₅₀ :	LC ₅₀ (Lethal Concentration):
Sodium Hydroxide 1310-73-2	140 - 340 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	-
Sodium hypochlorite 7681-52-9	= 8.91 g/kg (Rat)	> 10000 mg/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

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

Chemical name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite 7681-52-9	-	Group 3	-	-

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Other Adverse Effects: No information available.

Aspiration hazard No information available.

12. Ecological Information

Ecotoxicity

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Sodium Hydroxide 1310-73-2	-	45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	-	-
Sodium hypochlorite 7681-52-9	0.095: 24 h Skeletonema costatum mg/L EC50	0.06 - 0.11: 96 h Pimephales promelas mg/L LC50 flow-through 4.5 - 7.6: 96 h Pimephales promelas mg/L LC50 static 0.4 - 0.8: 96 h Lepomis macrochirus mg/L LC50 static 0.28 - 1: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.05 - 0.771: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.03 - 0.19: 96 h Oncorhynchus mykiss mg/L LC50 semi-static	-	2.1: 96 h Daphnia magna mg/L EC50 0.033 - 0.044: 48 h Daphnia magna mg/L EC50 Static

		0.18 - 0.22: 96 h Oncorhynchus mykiss mg/L LC50 static		
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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: There is no data for this product.

Other Adverse Effects: No information available.

13. Disposal Considerations

Waste treatment methods

Waste from residues/unused products Should not be released into the environment. 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

DOT

Proper shipping name HYPOCHLORITE SOLUTIONS (SODIUM HYPOCHLORITE)

Hazard Class 8

UN/ID No UN1791

Packing Group III

Reportable Quantity (RQ) 100 lbs

Description UN1791, HYPOCHLORITE SOLUTIONS (SODIUM HYPOCHLORITE), 8, PG III, MARINE POLLUTANT



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
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15392 Azone 15 - EPA Reg. No. 7870-5

Sodium Hydroxide	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, 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	Extremely Hazardous Substances RQs	SARA Extremely Hazardous Substances TPQ
Sodium Hydroxide	1000 lb	-	-
Sodium hypochlorite	100 lb	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:

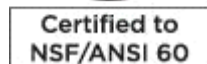
This product does not contain any Proposition 65 chemicals

16. Other Information

National Fire Protection Association (NFPA) Ratings



NSF/ANSI 60 Certification



Maximum Use (mg/L unless otherwise indicated): 40

Prepared By: HSE Department

Issue Date: 15-Mar-2013

Revision Date: 08-Feb-2019

Revision Note: Reviewed and Re-issued.

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