HASA BLEACH

Material Safety Data Sheet

12.5% Sodium Hypochlorite

Emergency 24 Hour Telephone: **CHEMTREC 800.424.9300**

Corporate Headquarter: Hasa Inc.
23119 Drayton Street
Saugus, California 91350
Telephone • 661.259.5848
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SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION			
1.1	**Product Identification:**		
	1.1.1	**Product Name:**	HASA BLEACH
	1.1.2	**CAS #** (Chemical Abstracts Service)**:**	7681-52-9
	1.1.3	**RTECS** (Registry of Toxic Effects of Chemical Substances)**:**	NH3486300
	1.1.4	**EINECS** (European Inventory of Existing Commercial Substances)**:**	231-668-3
	1.1.5	**EC Number:**	231-668-3
	1.1.6	**Synonym:**	Bleach, Hypo, Hypochlorite, Liquid Chlorine Solution
	1.1.7	**Chemical Name:**	Sodium Hypochlorite
	1.1.8	**Chemical Formula:**	NaOCl
1.2	**Recommended Uses:**		Laundry and cleaning.
1.3	**Company Identification:**		Hasa Inc. 23119 Drayton Street Saugus, California 91350
1.4	**Emergency Telephone Number:**		**CHEMTREC** 1-800-424-9300 (24 hour)
1.5	**Non-Emergency Assistance:**		661-259-5848 (8 AM – 5 PM PST / PDT)

SECTION 2: EMERGENCY OVERVIEW and HAZARD IDENTIFICATION			
2.1	**Emergency Overview.**		**DANGER. CORROSIVE.** Causes eye damage. Harmful if swallowed or absorbed through skin. Do not get in eyes, on skin, or on clothing. Wear safety glasses or goggles or face shield, protective clothing, and rubber gloves when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until strong odors have dissipated.
2.2	**Routes of Entry:**		Eyes, skin absorption, inhalation, ingestion.
2.3	**Short Term Exposure:**		
	2.3.1	**Eyes:**	Causes serious eye irritation. Blurred vision. May cause impairment of vision and corneal damage.
	2.3.2	**Skin:**	May cause skin irritation and/or dermatitis. Prolonged skin exposure may cause destruction of the dermis with impairment of the skin to regenerate at site of contact.
	2.3.3	**Inhalation:**	Accidental mixing with other chemicals or decomposition of sodium hypochlorite vapor is irritating to the respiratory system.
	2.3.4	**Ingestion:**	Ingestion of high concentrations may cause injuries to gastrointestinal tract, liver, kidneys and central nervous system. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
	2.3.5	**Aggravated Medical Conditions:**	Asthma, heart disease, respiratory disorders.
2.4	**Long Term Exposure:**		Based on the toxicity profile and exposure scenarios for sodium hypochlorite, EPA concludes that the risks from chronic and sub-chronic exposure to low levels of this pesticide are minimal and without consequence to human health.

SECTION 3: COMPOSITION INFORMATION ON INGREDIENTS				
	Ingredient	**Synonyms**	**CAS No.**	**Approx. Wt.%**
3.1	Sodium Hypochlorite	Bleach	7681-52-9	12.5%
3.2	Sodium Hydroxide	Caustic Soda	1310-73-2	0.2%

SECTION 4: FIRST AID MEASURES

4.1	**IF IN EYES**	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
4.2	**IF ON SKIN OR CLOTHING**	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
4.3	**IF INHALED**	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
4.4	**IF SWALLOWED**	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5: FIRE FIGHTING MEASURES

5.1	**Flash Point:**		Not applicable.
5.2	**Flammability:**		Nonflammable and noncombustible.
5.3	**Auto-Ignition Temperature:**		Not applicable.
5.4	**Products of Combustion:**		Not pertinent.
5.5	**Fire Hazards:**		May decompose, generating irritating chlorine gas.
5.6	**Explosion Hazards:**		Not explosive.
5.7	**Fire Fighting Media and Instructions:**		
	5.7.1	**Extinguishing Media:**	Use extinguishing measures appropriate to local circumstances and the surrounding environment.
	5.7.2	**Small Fires:**	Use carbon dioxide, or water spray.
	5.7.3	**Large Fires:**	Use flooding quantities of water as fog.
5.8	**Special Remarks on Fire Hazards:**		Do not use Mono Ammonium Phosphate (MAP) fire extinguishers. Such use may cause explosion with release of toxic gases.

SECTION 6: ACCIDENTAL RELEASE MEASURES		
6.1	**Small Spill:**	In case of spill, flood area where spill has occurred with large quantities of water. With permission from local authorities, diluted product may be flushed to a sanitary sewer. Product may also be absorbed with sand or diatomaceous earth. Absorbed products must be disposed of in accordance with applicable Federal, State, and/or local regulations. Contact Hasa Inc. for guidance.
6.2	**Large Spill:**	If possible without personal risk, stop leak. Try to prevent the materials from entering drains, waterways, or sewers. Absorb with sand, diatomaceous earth or similar products and dispose of in accordance with local regulations. Call Hasa Inc. for advice.

SECTION 7: HANDLING AND STORAGE		
7.1	**Handling:**	• Avoid contact with skin or eyes. • Do not ingest. • Avoid inhalation of vapor or mist. • Wear protective equipment if necessary. • Mix only with water in accordance with label directions. • Mixing this product with ammonia, acids, detergents, etc or with organic materials, e.g. feces, urine, etc. will release chlorine gas, which is irritating to eyes, lungs, and mucous membranes.
7.2	**Hygiene Measures:**	• Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. • While handling this product, avoid eating, drinking or smoking.
7.3	**Storage:**	• Do not freeze. • Store in a cool, shaded outdoor area. • Inside storage should be in a cool, dry, well-ventilated area. • To maintain hypochlorite strength, do not store in direct or heated indoor areas. • Keep in original vented container. • Keep container closed when not in use. • Do not store adjacent to chemicals that may react if spillage occurs. • If closed containers become heated, vent to release decomposition products (mainly oxygen under normal decomposition).

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1	**Engineering Controls:**		Local exhaust ventilation to maintain levels below STEL (Short Term Exposure Limit) of 1 ppm as chlorine.	
8.2	**Personal Protection:**			
	8.2.1	**Eye / Face Protection:**	Wear safety glasses, goggles or face shield to prevent eye contact.	
	8.2.2	**Skin Protection:**	Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Butyl rubber, Neoprene, or Nitrile Gloves should be worn when handling this material. Wear chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing promptly and wash before reuse. Clean protective equipment before reuse.	
	8.2.3	**Respiratory Protection:**	Avoid breathing vapor or mist. When airborne exposure limits are exceeded (see below), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and chemical goggles. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus.	
	8.2.4	**Other Safety Equipment:**	Eye wash facility and emergency shower should be in close proximity.	
8.3	**Exposure Limits:**		**Sodium Hypochlorite**	**Chlorine***
	8.3.1	**AIHA** (American Industrial Hygiene Association) / **WEEL** (Workplace Environmental Exposure Level guides) 2010:	2 mg/m^3: 15 minute. (Short-term time weighted average)	Not established
	8.3.2	**ACGIH** (American Conference of Governmental Industrial Hygienists) **TWA** (Time Weighted Average):	Not established.	0.5 ppm
	8.3.3	**ACGIH STEL** (Short Term Exposure Limit):	Not established.	1 ppm
	8.3.4	**OSHA PEL** (Permisible Exposure Limit):	Not established.	0.5 ppm
	8.3.5	**ACGIH** Ceiling:	Not established.	Not established
	8.3.6	**NIOSH** (National Institute for Occupational Safety & Health) **IDLH** (Immediate Danger to Life & Health):	Not established.	10 ppm
	8.3.7	**OSHA STEL** (Short Term Exposure Limit):	Not established.	1 ppm as Cl_2
	8.3.8	**NIOSH** (15 min. ceiling):	Not established.	0.5 ppm
	** Chlorine is unlikely to be present as a decomposition product, but may be present in incidents of accidental mixing with other chemicals.*			

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES		
9.1	**Physical State and Appearance:**	Liquid with pale yellow color.
9.2	**Odor:**	Bleach
9.3	**Odor Threshold:**	Not applicable.
9.4	**pH** (1% solution)**:**	11.2 – 11.4
9.5	**Boiling Point:**	Not applicable. Decomposes @ 110°C (230°F)
9.6	**Melting Point:**	Not applicable.
9.7	**Freezing Point:**	-23.3°C (-10°F)
9.8	**Evaporation Rate** (BuAc=1)**:**	Not available.
9.9	**Flammable Limits:**	Not applicable.
9.10	**Vapor Pressure:**	12.1 mm Hg @ 20°C (68°F)
9.11	**Vapor Density:** (Air=1)	2.61
9.12	**Relative Density or Specific Gravity** (H_2O=1):	1.2 g/mL or 10 lb/gallon @ 20°C (68°F)
9.13	**Solubility in Water:**	Mixes infinitely with water.
9.14	**Partition Coefficient: n-octanol / water:**	Not applicable.
9.15	**Viscosity:**	1.75 - 2.50 centipoises (varies with temperature)
9.16	**Volatility:**	Not applicable.
9.17	**Molecular Weight:**	74.5 g/mole
9.18	**Water / Oil Distribution Coefficient:**	Not applicable.
9.19	**Dispersion Properties:**	Not applicable.

SECTION 10: STABILITY AND REACTIVITY		
10.1	**Stability:**	Stable under normal conditions of storage, handling, and use.
10.2	**Instability / Decomposition Temperature:**	All bleach decomposition is dependant on temperature. For any given temperature, the higher the strength, the faster it decomposes. In summary, for every 10°C increase in storage temperature, the sodium hypo-chlorite will decompose at an increased rate factor of approximately 3.5.
10.3	**Conditions of Instability:**	High heat, ultraviolet light.
10.4	**Incompatibility with Various Substances:**	Oxidizing agents, acids, nitrogen containing organics, metals, iron, copper, nickel, cobalt, organic materials, and ammonia.
10.5	**Corrosivity:**	Corrosive to eyes and skin.
10.6	**Special Remarks on Reactivity:**	Rate of decomposition increases with heat. May develop chlorine if mixed with acidic solutions.
10.7	**Special Remarks on Corrosivity:**	None.
10.8	**Hazardous Polymerization:**	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1	**Routes of Entry:**		Eyes, skin, ingestion, dermal absorption.
11.2	**Acute Toxicity:**		
	11.2.1	**Oral Toxicity** (LD_{50})**:**	3-5 g/kg (rat)
	11.2.2	**Dermal Toxicity** (LD_{50})**:**	>10 g/kg (rabbit)
	11.2.3	**Primary Eye Irritation:**	Corrosive
	11.2.4	**Primary Skin Irritation:**	Corrosive
	11.2.5	**Inhalation Toxicity** (LC_{50})**:**	No data available.
11.3	**Chronic Effects (Human Risk Assessment):**		Based on the toxicity profile and exposure scenarios for sodium hypochlorite, EPA concludes that the risks from chronic and subchronic exposure to low levels of these pesticides are minimal and without consequence to human health.
11.4	**Tolerance Requirement:**		Exempt (EPA document "Index to Pesticide Chemical Names, Part 180 Tolerance Information, and Food and Feed Commodities (by Commodity)" July 2010

SECTION 12: ECOLOGICAL INFORMATION

12.1	**Ecotoxicity:**		Sodium hypochlorite is low in toxicity to avian wildlife, but it is highly toxic to freshwater fish and invertebrates.
	12.1.1	**Freshwater Fish Toxicity:**	Atlantic Herring (clupea harengus) LC_{50} = 0.033 - 0.097 mg//l/96 hr, flow through bioassay (pH: 8) Shiner Perch (cymatogaster aggregata) LC_{50} = 0.045 - 0.098 mg/l/96 hr, flow through bioassay (pH: 8) Three Spine Stickleback (gasterosteus aculeatus) LC_{50} = 0.141 - 0.193 mg/l/96 hr, flow through bioassay (pH: 8) Pink Salmon (oncorhynchus gorbuscha) LC_{50} = 0.023 - 0.052 mg/l/96 hr, flow through bioassay (pH: 8) Coho Salmon (oncorhynchus kisutch) LC_{50} = 0.026 - 0.038 mg/l/96 hr, flow through bioassay (pH: 8) English Sole (parophrys vetulus) LC_{50} = 0.044 - 0.144 mg/l/96 hr, flow through bioassay (pH: 8) Fat Head Minnow (pimephales promelas) LC_{50} = 0.22 - 0.62 mg/l/96 hr, flow through bioassay (pH: 7)
	12.1.2	**Invertebrate Toxicity:**	Water Flea (ceriodaphnia sp. 0) LC_{50} = 0.006 mg/l/24 hr Water Flea (daphnia magna) LC_{50} = 0.07 - 0.7 mg/l/24 hr Water Flea (daphnia magna) LC_{50} = 2.1 mg/l/96 hr Fresh Water Shrimp (gammarus fasciatus) LC_{50} = 0.4 mg/l/96 hr No common name (nitocra spinipes) LC_{50} = 0.40 mg/l/96 hr Grass Shrimp (palaemonetes pugio) LC_{50} = 0.52 mg/l/96 hr
12.2	**Persistence:**		No data available.
12.3	**Environmental Fate:**		In fresh water, sodium hypochlorite breaks down rapidly into non-toxic compounds when exposed to sunlight. In seawater, chlorine levels decline rapidly; however, hypobromite (which is acutely toxic to aquatic organisms) is formed. EPA believes that the risk of acute exposure to aquatic organisms is sufficiently mitigated by precautionary labeling and National Pollutant Discharge Elimination System (NPDES) permit requirements.
12.4	**Bioconcentration:**		This material is not expected to bioconcentrate in organisms.
12.5	**Biodegradation:**		This material is inorganic and not subject to biodegradation.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not contaminate food or feed by storage, disposal, or cleaning of equipment. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. This product can be neutralized with sodium bisulfite, sodium thiosulfate, sodium sulfite. Do not confuse these products with sulfates or bisulfates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination system (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not contaminate water containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Dispose of in accordance with all applicable local, County, State, and Federal regulations.

SECTION 14: TRANSPORT INFORMATION

14.1	**Inside containers 1.3 gallons or less.**		
	14.1.1	**DOT Classification:**	Consumer Commodity.
	14.1.2	**DOT Hazard Class:**	ORM-D.
	14.1.3	**Marking:**	Consumer Commodity, ORM-D.
	14.1.4	**Marine Pollutant:**	Not listed in Appendix B of the Hazardous Material Table.
	14.1.5	**Deposit Container Returns:**	RESIDUE: LAST CONTAINED CONSUMER COMMODITY ORM-D, PGIII."
14.2	**Inside containers or single containers exceeding 1.3 gallons.**		
	14.2.1	**DOT Classification:**	Hypochlorite Solutions.
	14.2.2	**DOT Hazard Class:**	8, UN1791, P.G. III.
	14.2.3	**Label:**	Corrosive 8.
	14.2.4	**Deposit Container Returns:**	RESIDUE: LAST CONTAINED, UN 1791, HYPOCHLORITE SOLUTIONS, 8, PGIII,
14.3	**Reportable Quantity (RQ):**		100 lb (45.4 kg) or 80 gallons (based on 12.5% active ingredient)

This information is not intended to convey all specific regulatory or operational requirements / information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

15.1	**U.S. Regulations:**		
	15.1.1	**OSHA HAZCOM** (Hazard Communication)	This material is considered hazardous under the HAZCOM Standard (29 CFR 1910.1200)
	15.1.2	**OSHA PSM** (Process Safety Management)	Not regulated under PSM Standard (29 CFR 1910.119)
	15.1.3	**EPA FIFRA** (Federal Insecticide, Fungicide and Rodenticide Act)	Not regulated under FIFRA standard.
	15.1.4	**EPA TSCA** (Toxic Substance Control Act)	All components are listed or exempted. TSCA 12(b): This product is not subject to export notification.
	15.1.5	**EPA CERCLA** (Comprehensive Environmental Response, Compensation, and Liability Act)	Reportable Quantity (RQ): 45.4 kg (100 lbs) or 80 gallons (based on 12.5% active ingredient).
	15.1.6	**EPA RMP** (Risk Management Plan)	Not listed. (40 CFR 68.130)
15.2	**State of California Regulations:**		
	15.2.1	**Safe Drinking Water and Toxic Enforcement Act of 1986 [Proposition 65, California only]:** Small quantities – less than 100 ppm (parts per million) – of impurities, including bromates, may be found in all chlorinating products, including this product. Bromates are derived from bromides, which are present in sodium chloride (table salt) from which chlorine is manufactured. Additional small quantities of bromates may be generated during the disinfection process. Bromates are known by the State of California to cause cancer when administered by the oral (drinking or ingesting) route. Read and follow label directions and use care when handling or using this product. The US Environmental Protection Agency has established a maximum contaminant level (MCL) for bromates in drinking water at 10 ppb (parts per billion). Application of this product in accordance with label directions at use dilution will not exceed this level. This warning is provided pursuant to Proposition 65, Chapter 6.6 of the California Health and Safety Code, which requires the Governor of California to publish a list of chemicals "known to the state to cause cancer or reproductive toxicity." This list is compiled in accordance with the procedures established under the proposition, and can be obtained on the internet from California's Office of Environmental Health Hazard Assessment at http://www.oehha.ca.gov.	
	15.2.2	**CDPR** (California Department of Pesticide Regulation)	Not regulated.
	15.2.3	**CalARP** (California Accidental Release Prevention Program)	Not regulated.
15.3	**Canada Regulations:**		
	15.3.1	**WHMIS** (Workplace Hazardous Materials Information System)	• Classification: E (Corrosive Materials) • Health Effects Criteria Met by this Chemical: ▪ E - Corrosive to skin ▪ E - TDG class 8 - corrosive substance • Ingredient Disclosure List: Included for disclosure at 1% or greater.
	15.3.2	**DSL** (Domestic Substances List)	All components of this product are on the DSL.
15.4	**International Inventory:**		
	15.4.1	**AICS** (Australian Inventory of Chemical Substances)	On inventory or in compliance with inventory.
	15.4.2	**KECI** (Korean Existing Chemicals Inventory)	On inventory or in compliance with inventory.
	15.4.3	**PICCS** (Philippine Inventory of Chemicals and Chemical Substances)	On inventory or in compliance with inventory.
	15.4.4	**IECSC** (Inventory of Existing Chemical Substances in China)	On inventory or in compliance with inventory.
	15.4.5	**NZIoC** (New Zealand Inventory of Chemicals)	On inventory or in compliance with inventory.

SECTION 16: OTHER INFORMATION

16.1	**HMIS III** (Hazardous Materials Identification System):		
	16.1.1	**HEALTH**	**2**
	16.1.2	**FLAMMABILITY**	**0**
	16.1.3	**PHYSICAL HAZARD**	**1**
	16.1.4	**PERSONAL PROTECTION**	See Section 8.
16.2	**NFPA 704** (National Fire Protection Association):		
	16.2.1	**HEALTH**	**2**
	16.2.2	**FLAMMABILITY**	**0**
	16.2.3	**INSTABILITY**	**0**
	16.2.4	**SPECIAL**	**None**
16.3	**International Fire Code / International Building Code:**		Irritant.
16.4	**ANSI** (American National Standards Institute):		
	16.4.1	**Hazardous Industrial Chemicals -** MSDS-Preparation:	Complies with **ANSI Z400.1 – 2004**.
	16.4.2	**Hazardous Industrial Chemicals -** Precautionary Labeling:	Complies with **ANSI Z129.1 – 2006**.
16.5	**GHS** (Globally Harmonized System)**:**		
	16.5.1	**Classification:**	Skin Corrosion / Irritation (Category 1). Serious Eye damage / Eye Irritation (Category 1)
	16.5.2	**Symbol:**	
	16.5.3	**Signal Word:**	Danger.
	16.5.4	**Hazard Statement:**	Causes severe skin burns and eye damage.

Note: The information contained herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge and belief. NO WARRANTY OR GUARANTEE, express or implied, is made regarding the product performance, product stability, or as to any other condition of use, handling, transportation, and storage. Customer use, handling, transportation, and storage may involve additional safety and/or performance considerations. Our technical personnel will be happy to respond to questions regarding safe handling, storage, transportation, and use procedures. The safe handling, storage, transportation, and use procedures remain the sole responsibility of the customer. No suggestions for handling, storage, transportation, or use are intended as or to be construed as recommendations which may infringe on any existing patents or violate any Federal, State, and/or local law and/or regulation, ordinance, standard, etc. This Material Safety Data Sheet has been prepared by HASA, Inc. staff from test reports and other information available in the public domain.