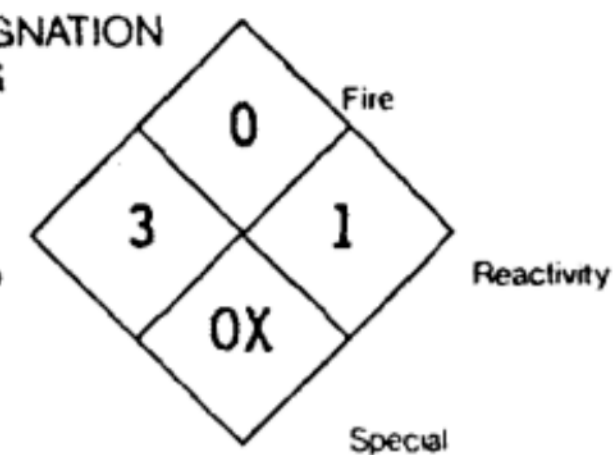


MATERIAL SAFETY DATA SHEET

NFPA 704 DESIGNATION
HAZARD RATING



4 = Extreme
3 = High
2 = Moderate
1 = Slight
0 = Insignificant



GREAT WESTERN CHEMICAL CO.

Issue Date: 01/27/94

Supersedes: 08/23/89

PRODUCT NAME: GW SANI-CLEAN	
CHEMICAL NAME: Sodium hypochlorite solution	CHEMICAL FAMILY: Hypochlorites
FORMULA: ClHO·Na (in water)	MOLECULAR WEIGHT: 75.45 (in water)
D.O.T. SHIPPING CLASSIFICATION: Hypochlorite solution, 8, UN1791, PG III	

I. PHYSICAL DATA

BOILING POINT 760mm, Hg	110° C (230° F) decomposes	FREEZING POINT	-26.1° C (-15° F)
SPECIFIC GRAVITY (WATER = 1)	1.21 @ 20° C	pH of 1% (w/v) SOLUTION	11.4
PERCENT VOLATILE ORGANICS BY VOLUME	0%	SOLUBILITY IN WATER	Complete
APPEARANCE AND ODOR	A clear, yellow-green liquid with a chlorine odor.		

II. HAZARDOUS INGREDIENTS

MATERIAL	HAZARD	% (wt.)	ACGIH TLV (Units)	OSHA PEL
Sodium Hypochlorite CAS# 7681-52-9	Oxidizer	12.5 minimum	Not Established	Not Established
[Chlorine] [CAS# 7782-50-5]	[Inhalation]		[Air: TWA 0.5 ppm] [STEL: 1 ppm]	[Air: TWA 0.5 ppm] [STEL: 1 ppm]
Sodium Hydroxide CAS# 1310-73-2	Corrosive	0.8 maximum	Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³
All chemicals contained in this product are listed on the Toxic Substance Control Act (TSCA) Inventory.				

EMERGENCY PHONE NUMBERS

Great Western Chemical Company
808 S.W. 15th Avenue
Portland, Oregon 97205
Phone: (503) 228-2600

800/424-9300
CHEMTREC

III. FIRE AND EXPLOSION HAZARD DATA				
FLASH POINT [test method(s)]	Not Applicable		AUTOIGNITION TEMPERATURE	Not Applicable
FLAMMABLE LIMITS IN AIR, % by volume			LOWER	Not Applicable
			UPPER	Not Applicable
EXTINGUISHING MEDIA	Water, foam, carbon dioxide, and dry chemicals.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	<p>Strong oxidizer; contact with combustibles may initiate or promote combustion.</p> <p>May produce hazardous fumes or hazardous decomposition products.</p> <p>Diluted solutions may be corrosive.</p>			
SPECIAL FIRE FIGHTING PROCEDURES	When fire fighting, wear full protective equipment, including self-contained breathing apparatus.			
IV. HEALTH HAZARD DATA				
THRESHOLD LIMIT VALUE	Not established on this product.			
ROUTE OF EXPOSURE	EYE CONTACT	SKIN CONTACT	SKIN ABSORPTION	
	"Danger" Corrosive	"Danger" Corrosive	No data published	
	INHALATION	INGESTION		
	Harmful if inhaled.	Harmful if swallowed.		
EFFECTS OF OVEREXPOSURE	Causes severe eye and skin irritation or burns. Harmful if swallowed or inhaled.			
EMERGENCY AND FIRST AID PROCEDURES	<p>EYES: Immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower lids occasionally. Call a physician immediately.</p> <p>EXTERNAL: In case of contact, immediately flush skin with plenty of clean running water for at least 15 minutes, while removing contaminated clothing and shoes. If burn or irritation occurs, call a physician.</p> <p>INTERNAL: If swallowed, DO NOT induce vomiting. Immediately drink a large quantity of milk or water and call a physician. Never give anything by mouth to an unconscious person.</p> <p>INHALATION: If inhaled, immediately move to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is difficult, give oxygen. Call a physician.</p>			

CHRONIC EXPOSURE EFFECTS	Repeated exposure can cause dermatitis and possible destruction of tissue; otherwise, same as for overexposure.
--------------------------	---

V. REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID	Direct sunlight, hot storage, and contamination by organics or metals.
UNSTABLE	STABLE <input checked="" type="checkbox"/>		

INCOMPATIBILITY (materials to avoid)	Acids, amines, ammonia, urine, fecal matter, combustible organics, other oxidizers, reducing agents, and most soft metals (e.g. aluminum).
--------------------------------------	--

HAZARDOUS DECOMPOSITION PRODUCTS	When heated to decomposition it emits toxic chloride fumes, oxygen, hydrochloric acid vapors and toxic oxides of sodium.
----------------------------------	--

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID	None.
MAY OCCUR	WILL NOT OCCUR <input checked="" type="checkbox"/>		

VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	Remove all ignition sources and contain spilled liquid. (For small spills, add dry material to contain.) Wearing recommended protective equipment, and using explosion-proof equipment, remove bulk of liquid; add dry material to absorb remaining liquid; pick up and containerize for product recovery or disposal. Flush area with water; collect rinsates for disposal or sewer, as appropriate.
--	---

WASTE DISPOSAL METHOD	<p>PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance.</p> <p>CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.</p>
-----------------------	---

VII. SPECIAL PROTECTION INFORMATION				
RESPIRATORY PROTECTION (specify type)		Use a NIOSH-approved gas mask with canister for chlorine, if fumes are present.		
VENTILATION	LOCAL EXHAUST	Preferable	SPECIAL	None
	MECHANICAL (general)	OK	OTHER	Not Applicable
PROTECTIVE GLOVES		Neoprene, nitrile or rubber.		
EYE PROTECTION		Chemical goggles (recommended by ANSI Z87.1-1979)		
OTHER PROTECTIVE EQUIPMENT		Rubber apron, rubber boots, eyewash and safety shower.		

VIII. SPECIAL PRECAUTIONS

PRECAUTIONARY LABELING	<p>FOR INDUSTRIAL USE ONLY.</p> <p>Keep out of reach of children.</p> <p>Protect eyes, skin, and clothing from contact with product.</p> <p>Use only with adequate ventilation.</p> <p>Keep container tightly closed when not in use.</p> <p>Wash thoroughly after handling.</p> <p>Do not discharge into lakes, streams, ponds, or other public waterways, as this product is toxic to fish.</p> <p>Do not allow to dry out.</p> <p>It is a violation of federal law to use this product in a manner inconsistent with its labeling.</p> <p>EPA Reg. No. 33003-1</p> <p>This product is not manufactured to contain a known carcinogen or reproductive toxin. Extremely small amounts of these materials may be present in this product from general environmental sources.</p> <p>Do not mix this product with chemicals (e.g. ammonia, acids, detergents, etc.) or organic matter (e.g. urine, feces, etc.) which will release chlorine and other hazardous gases which are irritating to eyes, lungs and mucous membranes.</p>
------------------------	--

OTHER HANDLING AND STORAGE CONDITIONS	<p>Store in a cool, dry, well-ventilated area away from direct sunlight and heat.</p> <p>Open container slowly to relieve pressure.</p> <p>Protect from freezing and temperatures in excess of 60° C (140° F).</p> <p>Do not contaminate water, food, or feed by storage, use or disposal.</p>
---------------------------------------	--

PREPARED BY	David L. Bishop	DATE	January 27, 1994
-------------	-----------------	------	------------------

This Material Safety Data Sheet is provided as an information resource only. It should not be taken as a warranty or representation for which Great Western Chemical Company assumes legal responsibility. While Great Western Chemical Company believes the information contained herein is accurate and compiled from sources believed to be reliable, it is the responsibility of the user to investigate and verify its validity. The buyer assumes all responsibility of using and handling the product in accordance with applicable federal, state, and local regulations.