

## HAZARD RATING

4-EXTREME  
3-HIGH  
2-MODERATE  
1-SLIGHT



## MATERIAL SAFETY DATA SHEET

(Prepared according to 29 CFR 1910. 1200)

Date Prepared: 3-10-05

## SECTION 1 - PRODUCT IDENTIFICATION

Company Name	Cardinal Chemical Systems, Inc.	Emergency Telephone No.	314-757-6182
Address	P.O. Box 45007, St. Louis, MO 63145-5007	Information Telephone No.	314-757-6182
Product Name / ID#	Liquid Bleach (7476)	Product Type	Liquid Destainer <input checked="" type="checkbox"/> Proprietary Product

## SECTION 2 - HAZARDOUS INGREDIENTS

Chemical Name/Common Name	Cas No.	Percent (optional)	TLV (Source)
Sodium Hypochlorite	7681-52-9	<10%	NA
Sodium Hydroxide	1310-73-2	< 2%	C2mg/m3 (ACGIH)

☐ \* Substances ☒ Contains no substances - subject to the reporting requirements of SARA 313 and 40 CFR Part 372.

## SECTION 3 - PHYSICAL DATA

Boiling Point (°F)	approx. 219°F	Specific Gravity (H <sub>2</sub> O=1.0)	1.174 ± 0.005	pH	12.9 ± 0.3	% VOC (ww)	0%
Solubility In Water	<input checked="" type="checkbox"/> Complete <input type="checkbox"/> Insoluble <input type="checkbox"/> Emulsifiable or (Dispersible) <input type="checkbox"/> Slight (or Partial)						
Evaporation Rate (vs H <sub>2</sub> O)	<input type="checkbox"/> Faster <input type="checkbox"/> Slower <input checked="" type="checkbox"/> About the Same	Vapor Pressure	NE	Vapor Density	NE		
Appearance and Odor	Light yellow / green, thin liquid, chlorine odor.						

## SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point (T.C.C.)	<input checked="" type="checkbox"/> None to boiling	Flammable Limits	Upper	NA	Lower	NA
Extinguishing Media	As appropriate for surrounding fire.					
Special Fire Fighting Procedures	Firefighters should wear self-contained breathing apparatus and full protective clothing. Use water spray to cool nearby containers.					
Unusual Fire Explosion Hazards	Decomposition when heated may cause containers to rupture or explode. Vigorous reaction with organic materials or oxidizing agents may result in fire.					

## SECTION 5 - REACTIVE DATA

Stability	Decomposes when heated.	Incompatibility	Heavy metals, reducing agents, organics, ammonia, acids.
Hazardous Decomposition Products	Hypochlorous acid (HOCl), chlorine, hydrochloric acid. Sodium chloride, Sodium chlorate and oxygen, depending on pH temperature, and time.		

## SECTION 6 - HEALTH HAZARDS

Threshold Limit Value Product See Section 2 for Ingredients TLV	<input checked="" type="checkbox"/> None Established <input type="checkbox"/> Not Applicable	Primary routes of Exposure	<input checked="" type="checkbox"/> Eyes <input checked="" type="checkbox"/> Skin <input checked="" type="checkbox"/> Oral <input checked="" type="checkbox"/> Inhalation
Signs Symptoms of Over-exposure (Acute)	Contact with eyes may cause severe irritation or damage. Skin contact may irritate the skin causing redness and possibly inflammation. Inhalation of fumes or mists cause respiratory tract irritation and irritation of mucous membranes. Ingestion is extremely corrosive to the mouth, throat, mucous membranes stomach, and cause severe abdominal pain, nausea, vomiting, circulatory collapse confusion, coma, and even death if large quantity is swallowed.		
Signs Symptoms of Over-exposure (Chronic)	Prolonged or repeated exposure can lead to constant irritation of eyes and throat and may also cause dermatitis and sensitization.		
Medical Conditions Aggravated by Over-exposure	Asthma or other pre-existing lung/respiratory illnesses		
Carcinogen/Suspected Carcinogen Ingredients:	<input type="checkbox"/> NTP <input type="checkbox"/> IARC <input type="checkbox"/> OSHA <input checked="" type="checkbox"/> None		

## SECTION 7 - FIRST AID PROCEDURES - (If any Condition persists - Consult a physician.)

Eyes	Flush with water for 15 minutes, while holding eyelids open. Get immediate medical attention.
Skin	Wash with water for 15 minutes. Remove any contaminated clothing and wash before reuse.
Ingestion	Drink water or milk. Do NOT induce vomiting or administer baking soda or acidic antidotes. Call a physician.
Inhalation	Remove to fresh air if qualified. Give artificial respiration or oxygen as necessary and/or seek medical help.

## SECTION 8 - SPECIAL PROTECTION INFORMATION

Respiratory Protection	When fumes are present, use NIOSH approved respirator with chlorine canister.		
Ventilation requirements	<input checked="" type="checkbox"/> Local Exhaust	<input checked="" type="checkbox"/> Mechanical	As needed to minimize exposure to vapors or mists.
Protective Gloves	Rubber	Eye Protection	Safety goggles.
Other Protective Clothing	Rubber apron, sleeves, and boots, if splashing may occur or when handling large volume of material.		

## SECTION 9 - SPILL OR LEAK PROCEDURES

Steps to be Taken if Released or Spilled	Do not allow to enter sewers or streams. Flush with water to dilute as much as possible.
Avoid heat and contamination with acid materials. Do not use combustible materials such as sawdust to absorb small spills.	
Waste Disposal Methods	Reduce by adding reducing agents, such as bisulfites or ferrous salt solutions. Some heat will be produced. Keep on alkaline side and dilute with copious quantities of water. Principal end product is salt water (NaCl). Check all government regulations.

## SECTION 10 - STORAGE AND HANDLING INFORMATION

Precautions to be Taken in handling and Storage	Store so as to be inaccessible to children.. Store in vented, closed, clean, non - corrosive containers in cool, dry location away from sunlight. Store at temperatures below 85°F. Wash thoroughly after handling.
---	---