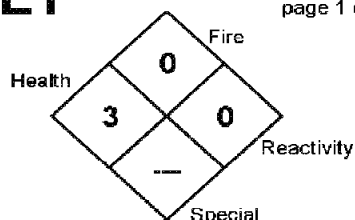


MATERIAL SAFETY DATA SHEET**BRENNTAG**NFPA 704 DESIGNATION
HAZARD RATING4=Extreme
3=High
2=Moderate
1=Slight
0=Insignificant

Brenntag MSDS #:	BPI-00380
MSDS Revision/Issue Date:	04/13/09
Supersedes Revision Date:	New

1. CHEMICAL PRODUCT IDENTIFICATION & COMPANY IDENTIFICATION**PRODUCT IDENTIFIER:** LACCO Chlorofoam 600**GENERAL USE:** Used to foam clean all food handling surfaces and processing equipment, in food processing and production operations.**PRODUCT DESCRIPTION:** A high foaming, chlorinated, alkaline cleaner designed to be effective in removing fat, blood, and proteinaceous food soils found in food processing plants.**INFORMATION PROVIDED BY:** Brenntag Pacific, Inc.
10747 Patterson Place
Santa Fe Springs, CA 90670**EMERGENCY PHONE NUMBERS**

For MSDS call: PHONE: 526-903-9626

CHEMTREC: 800-424-9300

2. COMPOSITION & INFORMATION ON INGREDIENTS

COMPONENT	CAS #	OSHA HAZARD	WT %	ACGIH		OSHA	
				TLV _(TWA)	STEL	PEL _(TWA)	STEL
Sodium Hydroxide	1310-73-2	Corrosive; Lung Toxin	2 ± 1	None Ceiling: 2 mg/m ³	None	2 mg/m ³	None
Potassium Hydroxide	1310-58-3	Corrosive; Toxic	2 ± 1	None Ceiling: 2 mg/m ³	None	None	None
Lauryl Dimethylamine Oxide	1643-20-5	Severe Eye, Skin & Respiratory Irritant	2 ± 1	None	None	None	None
Sodium Hypochlorite	7681-52-9	Severe Eye Irritant; Skin & Respiratory Irritant; Oxidizer; Chlorine Releaser	2 ± 1	None	None AIHA WEEL: 2 mg/m ³ (for 15 minute TWA)	None	None

NDA = No Data Available

N/A = Not

3. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW:** A clear, colorless to light yellow liquid having a slight, characteristic bleach type odor. The mists and liquid may cause severe irritation or burns to the eyes, skin and respiratory tract. This product can react with acids to liberate toxic, corrosive Chlorine gas. **The NIOSH I.D.L.H. for Sodium Hydroxide is: 10 mg/m³.****POTENTIAL HEALTH EFFECTS****INHALATION:** Inhalation of mists may cause severe irritation or burns to the nose, mouth, throat, mucous membranes and lungs. Symptoms of exposure may include shortness of breath, sneezing, coughing, choking, chest pain and impairment of lung function. Inhalation of high mist concentrations may result in permanent lung damage.**EYE CONTACT:** Exposure to the mists or liquid can cause severe eye irritation or burns. Symptoms of exposure may include tearing, redness, swelling and pain. Exposure may cause corneal damage and/or visual impairment, unless treated promptly.**SKIN CONTACT:** Exposure to the mists or liquid may cause severe skin irritation or burns. Symptoms of exposure may include redness, itching, swelling and a possibly painful burning sensation. Prolonged skin exposure may cause destruction of the dermis with impairment of the skin, at site of contact, to regenerate. No published data indicates this product is absorbed through the skin.**INGESTION:** Ingestion may cause severe irritation or burns to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding and possible tissue ulceration. Ingestion of a large amount may be fatal.**CHRONIC:** The chronic health effects of exposure to this product are expected to be the same as for acute exposure.

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PRODUCT IDENTIFIER: **LACCO Chlorofoam 600**

page 2 of 6

4. FIRST AID MEASURES

- INHALATION:** If inhaled, immediately move to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; use the Holger Nielsen method (back pressure – arm lift) or proper respiratory device. If breathing is difficult, give oxygen. Call a physician.
- EYE CONTACT:** In case of contact, immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower lids occasionally. Remove contact lenses, if worn. Get medical attention immediately.
- SKIN CONTACT:** 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.
- INGESTION:** If swallowed, DO NOT induce vomiting. Get medical attention immediately. If victim is fully conscious, give plenty of water to drink. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIANS: This product may be corrosive to the eyes, skin and mucous membranes. If ingested, consideration should be given to careful endoscopy as stomach or esophageal burns, perforations or strictures may occur. Careful gastric lavage with an endotracheal tube in place should be considered. Treat exposure symptomatically.

5. FIRE FIGHTING MEASURES

Flashpoint and Method: This product does not flash.

Flammable Limits (in air, % by volume) Lower: Not applicable Upper: Not applicable

Autoignition Temperature: Not applicable

GENERAL HAZARD: This product is a clear, colorless to light yellow, aqueous solution. The Uniform Fire Code health hazard classification for this product is: **Corrosive (Alkaline)**. Dilute solutions of this product may also be corrosive and may generate flammable / explosive Hydrogen gas on contact with some soft metals (such as Aluminum). This product may produce hazardous decomposition products.

FIRE FIGHTING INSTRUCTIONS: **EXTINGUISHING MEDIA:** Water fog, foam, CO₂ or dry chemicals.
Use a water spray or fog to cool the containers exposed to the heat of a fire.

FIRE FIGHTING EQUIPMENT: Fire fighters should wear full protective equipment, including self-contained breathing apparatus.

HAZARDOUS COMBUSTION PRODUCTS: When heated to dryness and decomposition, it emits highly toxic chloride fumes plus toxic carbon monoxide, carbon dioxide, nitrogen oxides, potassium oxide and sodium oxide with dense, irritating smoke.

6. ACCIDENTAL RELEASE MEASURES

LAND SPILL: Wearing recommended protective equipment and clothing, dike the spill and pick up the bulk of liquid using pumps or a vacuum truck, or absorb the liquid in sand or a commercial absorbent. Place in approved containers for recovery, disposal, or satellite accumulation. Neutralize the hypochlorite or available chlorine with a dilute solution of sodium sulfite or sodium thiosulfate. Neutralize the alkalinity, of the remaining liquid, using a dilute acid solution that is appropriate for neutralizing alkaline liquids. Liberally cover the spill area with sodium bicarbonate. Flush the spill area with water; collect the rinsates for disposal or sewer, as appropriate.

WATER SPILL: Wear recommended protective equipment and clothing if contact with hazardous material can occur. Stop or divert water flow. Dike contaminated water and remove for disposal and/or treatment. As appropriate, notify all downstream users of possible contamination.

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PRODUCT IDENTIFIER: **LACCO Chlorofoam 600**

page 3 of 6

7. HANDLING AND STORAGE**STORAGE TEMPERATURE:** Ambient**STORAGE PRESSURE:** Ambient

GENERAL: Store in a cool, dry, well-ventilated area away from incompatible materials and products. Do not get in eyes, on skin or on clothing. Wear recommended personnel protective equipment. Do not breathe mists or aerosols. Use with adequate ventilation. Do not take internally. Keep the container tightly closed when not in use. Wash thoroughly after handling this product.

This product is corrosive to Aluminum, Magnesium, Tin, Zinc and alloys containing these metals, and can react with these metals to generate flammable / explosive Hydrogen gas.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL MEASURES: Use a local or general, mechanical exhaust ventilation system capable of maintaining emissions, in the work area, below the ACGIH-TLV, OSHA-PEL or AIHA-WEEL.

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

RESPIRATOR: For exposure above an ACGIH-TLV, OSHA-PEL or AIHA-WEEL, wear a NIOSH-approved full facepiece or half mask air-purifying cartridge respirator equipped with a good particulate / mist filter cartridge, or supplied air. For exposures to Sodium Hydroxide above 10 mg/m³, a full facepiece supplied air respirator or a self-contained breathing apparatus (SCBA) operated in the positive pressure mode is recommended by NIOSH.

EYES: Wear chemical goggles (recommended by ANSI Z87.1-1979), unless a full facepiece respirator is worn.

GLOVES: Wear Neoprene, Nitrile, Butyl Rubber or Natural Rubber gloves.

CLOTHING & EQUIPMENT: Wear a Neoprene, Nitrile, Butyl Rubber or Natural Rubber apron, or full protective clothing when handling this product. An eye wash station and safety shower should be available in the work area.

FOOTWEAR: Wear Neoprene, Nitrile, Butyl Rubber, or Natural Rubber boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless to light yellow	Bulk Density (pounds/ft³):	Not applicable
Physical State:	Liquid	Vapor Pressure:	No data available
Odor:	Slight, characteristic bleach type	Vapor Density (air=1):	No data available
Odor Threshold:	No data available	Evaporation Rate (n-Butyl Acetate=1):	Less than 1
Molecular Formula:	Mixture	VOC Content:	Nil
Molecular Weight:	Not applicable	% Volatile:	Approximately 91
Boiling Point:	Greater than 100° C. (212° F.)	Solubility in H₂O:	Complete
Freezing/Melting Point:	Less than 0° C. (32° F.)	Octanol/Water Partition Coefficient:	No data available
Specific Gravity:	Approximately 1.085 @ 20° C.	pH (as is):	13.5 to 14.0
Density (pounds/gallon):	Approximately 9.05	pH (1% solution):	11.5 – 12.5

10. STABILITY AND REACTIVITY

GENERAL: This product is stable and hazardous polymerization will not occur.

CONDITIONS TO AVOID: Hot storage.

INCOMPATIBLE MATERIAL: Acids and acidic materials or products, oxidizers and some soft metals (i.e. Aluminum, Magnesium, Tin and Zinc).

HAZARDOUS DECOMPOSITION PRODUCTS: When heated to dryness and decomposition, it emits toxic chloride fumes plus toxic oxides of carbon, nitrogen, potassium and sodium with dense, irritating smoke.

SENSITIVITY TO MECHANICAL IMPACT: This product is not sensitive to mechanical impact.

SENSITIVITY TO STATIC DISCHARGE: This product is not sensitive to static discharge.

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PRODUCT IDENTIFIER: **LACCO Chlorofoam 600**

page 4 of 6

11. TOXICOLOGICAL INFORMATION

(additional toxicological information in section 16)

Components:	Sodium Hydroxide	Potassium Hydroxide
Eye Contact:	Rabbit: 50 ug/24 hours; Severe	Rabbit: 1 mg/24 hours; Severe
Skin Contact:	Rabbit: 500 mg/24 hours; Severe	Rabbit: 50 mg/24 hours; Severe
Oral Rat LD₅₀:	No data available (Oral Rabbit LD ₅₀ : 500 mg/kg)	273 mg/kg
Dermal Rabbit LD₅₀:	1,350 mg/kg	Greater than 2 gm/kg
Inhalation Rat LC₅₀:	No data available	No data available
Human Data:	No data available	Skin Human: 50 mg/24 hours; Severe
Other Toxicological Data:	Intraperitoneal Mouse LD ₅₀ : 40 mg/kg	No data available
Carcinogenicity:	No data available	No data available
Teratogenicity:	No data available	No data available
Mutagenicity:	Hamster Cytogenetic Analysis; Lung: 10 mmol/Liter	Hamster Cytogenetic Analysis; Ovary: 12 mmol/Liter
Synergistic Products:	None reported	None reported
Target Organs:	Eyes, Skin, Mucous membranes & Lungs	Eyes, Skin, Mucous membranes, Lungs & Gastrointestinal tract
Medical Conditions		
Aggravated By Exposure:	Skin or Respiratory disorders	Skin or Respiratory disorders

12. ECOLOGICAL INFORMATION**ENVIRONMENTAL FATE:**

This product is completely soluble in water. No specific environmental fate information has been determined on this product. This product will affect the pH of water.

ENVIRONMENTAL CONSIDERATIONS:

The aquatic toxicity for this product has not been determined; however, the EPA has published label requirements stating that Sodium Hypochlorite solutions are toxic to fish and the Potassium Hydroxide Lethal Dose (24 hour exposure) is: Trout = 50 ppm and Bluegills = 56 ppm.

13. DISPOSAL CONSIDERATIONS**RCRA 40 CFR 261 CLASSIFICATION:** Corrosive Waste**U.S. EPA WASTE NUMBER/DESCRIPTION:** D002

If this product is disposed of as shipped, it meets the criteria of a hazardous waste as defined under 40 CFR 261 due to its corrosivity. If this product becomes a waste, it will be a hazardous waste which is subject to the Land Disposal Restrictions under 40 CFR 268 and must be managed accordingly. As a hazardous liquid waste, it must be disposed of in accordance with local, state, and federal regulations in a permitted hazardous waste treatment, storage, and disposal facility.

14. TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME:	Corrosive liquid, basic, inorganic, n.o.s. (Contains Sodium Hydroxide / Potassium Hydroxide)		
	Hazard Class: 8	UN Number: UN3266	Packing Group: II
	Primary Label: Corrosive	Subsidiary Label(s): None Required	
	Primary/Subsidiary Placards: Corrosive		
DOT Reportable Quantity (RQ):	100 pounds (NaOCl)	RQ for Product: 5,556 pounds (614 gallons)	
Marine Pollutant:	No		
2008 North American Emergency Response Guidebook No.:	154		
TDG PROPER SHIPPING NAME:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Contains Sodium Hydroxide / Potassium Hydroxide)		
	Hazard Class: 8	UN Number: UN3266	Packing Group: II
	Primary Label: Corrosive	Subsidiary Label(s): None Required	
	Primary/Subsidiary Placards: Corrosive		
TDG Reportable Quantity (RQ):[#]	At least 5 kg or 5 liters.		
TDG Schedule XII:	Not listed		
Regulated Limit (RL):^{###}	5 kg (NaOCl)	RL for Product: 277.8 kg (256 liters)	
Other Shipping Information:	None		

[#] Canadian Transportation of Dangerous Goods Regulations (TDGR), Part IX, Table I, Quantities or levels for Immediate Reporting: releases of reportable quantities, RQ, that meet the definition of a "dangerous occurrence" (a threat to life, health, property, or the environment) must be reported to the appropriate authorities as outlined in TDGR 9.13(1) and 9.14(1).

^{###} Reporting to Environment Canada is required for any releases exceeding the regulated limits, RL, of 9.2 materials (primary or secondary). The regulated limits are found in Schedule XIII of the TDGR.

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PRODUCT IDENTIFIER: **LACCO Chlorofoam 600**

page 5 of 6

15. REGULATORY INFORMATION

COMPONENTS:	<u>Sodium Hydroxide</u>	<u>Potassium Hydroxide</u>	<u>Lauryl Dimethyl-amine Oxide</u>	<u>Sodium Hypochlorite</u>
<u>OSHA Target Organs:</u>	Eyes, Skin, Mucous membranes & Lungs	Eyes, Skin, Mucous membranes, Lungs & Gastrointestinal tract	Eyes, Skin, Mucous membranes & Lungs	Eyes, Skin, Mucous membranes & Lungs
<u>Carcinogenic Potential:</u>				
Regulated by OSHA:	No	No	No	No
Listed on NTP Report:	No	No	No	No
Listed by IARC:	No	No	No	Yes
IARC Group:	Not applicable	Not applicable	Not applicable	Group 3
ACGIH Appendix A:	Not listed	Not listed	Not listed	Not listed
A1 Confirmed Human:	Not applicable	Not applicable	Not applicable	Not applicable
A2 Suspected Human:	Not applicable	Not applicable	Not applicable	Not applicable
<u>U.S. EPA Requirements</u>				
<u>Release Reporting</u>				
CERCLA (40 CFR 302)				
Listed Substance:	Yes	Yes	Not listed	Yes
Reportable Quantity:	1,000 pounds	1,000 pounds	Not applicable	100 pounds
Category:	C	C	Not applicable	B
RCRA Waste No.:	None listed	None listed	Not applicable	None listed
Unlisted Substance:	Not applicable	Not applicable	Not applicable	Not applicable
Reportable Quantity:	Not applicable	Not applicable	Not applicable	Not applicable
Characteristic:	Not applicable	Not applicable	Not applicable	Not applicable
RCRA Waste No.:	Not applicable	Not applicable	Not applicable	Not applicable
<u>SARA TITLE III</u>				
Section 302 & 303 (40 CFR 355):				
Listed Substance:	Not listed	Not listed	Not listed	Not listed
Reportable Quantity:	Not applicable	Not applicable	Not applicable	Not applicable
Planning Threshold:	Not applicable	Not applicable	Not applicable	Not applicable
Section 311 & 312 (40 CFR 370):				
Hazard Categories (product):	Fire: <u>N</u>	Sudden Release of Pressure: <u>N</u>	Reactive: <u>N</u>	Acute Health: <u>Y</u>
Planning threshold:	10,000 pounds	10,000 pounds	10,000 pounds	10,000 pounds
Section 313 (40 CFR 372):				
Listed Toxic Chemical:	Not listed	Not listed	Not listed	Not listed
Reporting Threshold:	Not applicable	Not applicable	Not applicable	Not applicable
<u>U.S. TSCA Status</u>				
Listed (40 CFR 710):	Yes	Yes	Yes	Yes
<u>State Regulations</u>				
State of California: Safe Drinking Water and Toxins Enforcement Act, 1986 (Proposition 65):				
Carcinogen:	No	No	No	No
Reproductive Toxin:	No	No	No	No
<u>Other Regulations</u>				
State Right To Know Laws:	MA, NJ, PA			
<u>Canadian Regulations</u>				
Product Information:				
Controlled Product:	Yes			
WHMIS Hazard Symbols:	Corrosive Material			
WHMIS Class & Division:	E			
Ingredient Information:				
IDL Substance:	Yes	Yes	Yes	Yes
DSL or NDSL Lists:	DSL	DSL	DSL	DSL

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PRODUCT IDENTIFIER: **LACCO Chlorofoam 600**

page 6 of 6

16. OTHER INFORMATION**EPA Registration number:** Not applicable**Approved Product Uses:** Not applicable**Additional Toxicological Information (continued from section 11):**

Components:	Lauryl Dimethylamine Oxide	Sodium Hypochlorite
Eye Contact:	Rabbit: 50 ug/24 hours; Severe	Rabbit: 10 mg; Moderate
Skin Contact:	Rabbit: 500 mg/24 hours; Severe	No data available
Oral Rat LD₅₀:	1,600 mg/kg	890 mg/kg
Dermal Rabbit LD₅₀:	No data available	Greater than 10 gm/kg
Inhalation Rat LC₅₀:	No data available	Greater than 10.5 mg/Liter/1 hour
Human Data:	No data available	Oral Woman TD _{Lo} : 1 gm/kg; Central Nervous System, Blood Pressure and Skin effects
Other Toxicological Data:	No data available	Oral Mouse LD ₅₀ : 5,800 mg/kg
Carcinogenicity:	No data available	No data available
Teratogenicity:	No data available	No data available
Mutagenicity:	No data available	Human Cytogenetic Analysis; Lymphocyte: 100 ppm/24 hours
Synergistic Products:	None reported	None reported
Target Organs:	Eyes, Skin, Mucous membranes & Lungs	Eyes, Skin, Mucous membranes & Lungs
Medical Conditions Aggravated By Exposure:	Skin or Respiratory disorders	Skin or Respiratory disorders

Special Notes:

This product is not formulated to contain any material, which the State of California has found to cause cancer and/or birth defects or other reproductive harm.

Special Instructions:

Store this product in a cool, dry, well-ventilated area away from incompatible materials and products.

Do not add LACCO Chlorofoam 600 to acids or acidic sanitizers and cleaners as this will generate heat and liberate toxic, corrosive Chlorine gas.

MSDS Revision Information: Information Revised This Issue Date: **Updated per new ownership and information.**

Form Revision made 2/19/09

MSDS Distributed by: Brenntag Pacific, Inc.

Prepared By: Edward Doheny

Date Prepared: April 13, 2009

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