

Chemical Systems
Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:	CS-7600 Chlorinated Alkaline Foam Cleaner	Issue Date:	January, 2005
Manufacturer:	Chemical Systems 6429 West Jones Avenue P.O. Box 810 Zellwood, FL 32798	Phone Number:	407-886-2329
		24 Hour Emergency Number	CHEMTREC: 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS Number/Name
1310-58-3 Potassium Hydroxide (KOH)

<u>Exposure Limits</u>	<u>Percentage</u>
PEL: 2 mg/m ³	5 - 15%
TLV: 2 mg/m ³	

Common Names
Caustic Potash

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CAS Number/Name
7681-52-9 Sodium Hypochlorite (NaOCl)

<u>Exposure Limits</u>	<u>Percentage</u>
PEL: NONE EST.	1 - 5%
TLV: NONE EST.	

Common Names
Bleach

3. HAZARDS IDENTIFICATION

Emergency Overview

May cause burns to the eyes, skin and mucous membrane. May cause permanent eye damage. Inhalation of mist or spray can produce burns of the respiratory tract. Can react violently with water, acids and other substances. Liquid has a distinctive chlorine odor.

Potential Health Effects

Routes of entry:	Inhalation, Ingestion, Skin Contact
Target Organs:	Eyes, skin, respiratory tract and gastrointestinal tract
Irritancy:	Liquid, vapors or mist may be irritating to eyes, skin and respiratory tract
Sensitizing Capability:	None known
Reproductive Effects:	None known
Cancer Information:	None known

Short Term Exposure (Acute)

Inhalation:

- Exposure to vapor, mist or liquid can produce burns of the respiratory tract.
- Excessive exposures could result in chemical pneumonia.

Eyes:

- Contact can cause tissue damage including burns and possibly blindness.

Skin:

- Contact can cause severe burns and tissue destruction.
- Effects may be delayed.

Ingestion:

- Corrosive. Severe burns and complete tissue perforation of mucous membranes of mouth, throat and stomach.

Repeated Exposure (Chronic)

None Known

Synergistic Materials

None Known

Medical Conditions Aggravated by Exposure

None Known

4. FIRST AID MEASURES

Eyes:

IMMEDIATELY FLUSH EYES WITH A DIRECTED STREAM OF WATER for at least 20 minutes while forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissues. Get medical attention immediately.

Skin:

In case of contact with the substance, immediately flush skin with cool running water for at least 20 minutes. For minor skin contact, avoid spreading material on unaffected skin. Remove contaminated clothing and shoes and wash before reuse. Get medical attention as soon as possible.

Inhalation:

Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, have a trained person administer artificial respiration. Get medical attention as soon as possible.

Ingestion:

Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. Give large quantities of water. If available, give several glasses of milk. Get medical attention immediately.

Notes to Physician:

Preexisting ailments of the skin, lungs or immune system may be aggravated by exposure to this material.

5. FIRE FIGHTING MEASURES

Flash Point: Non-flammable

Method: Non-flammable

Autoignition Temperature: Non-flammable

Flammable Limits in Air, by Volume:

Upper	Non-flammable
Lower	Non-flammable

Extinguishing Media:

- Non-flammable/Non-combustible.
- Use water spray to keep fire-exposed containers cool.

Fire Fighting Procedures:

- Use water to cool containers, but avoid getting water into containers. Wear NIOSH/MSHA approved positive-pressure self-contained breathing apparatus and full protective clothing.
- May release hydrogen chloride under fire conditions.

Fire and Explosion Hazard:

- Direct contact with water can cause a violent exothermic reaction. This product is nonflammable and nonexplosive under normal conditions of use. At high temperatures this product can decompose to give off hydrochloric acid and gas.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

- Evacuate unnecessary personnel.
- Follow protective measures provided under Personal Protection in Section 8.

Environmental Precautions

- According to CERCLA regulations, environmental releases that exceed the RQ must be reported to the National Response Center at 1-800-424-8802. State and local response centers may also need to be contacted.
- Contain liquids and prevent discharges to streams or sewers. Large leaks may require environmental consideration and possible evacuation. Do not apply water to the leak.
- This product may react strongly with acids and water.
- NEVER FLUSH TO SEWER.

Methods for Cleaning Up

- Flush spill area with water only if water can be collected and placed in appropriate containers for disposal.
- For large spills, dike and pump into properly labeled containers for reclamation or disposal.

7. HANDLING AND STORAGE

Handling

- Avoid breathing the mist or vapors. Do not get in eyes, on skin or clothing. Wash contaminated clothing before reuse. Do not take internally. Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the MSDS. Wash thoroughly after handling; exposure can cause burns, which are not immediately painful or visible.
- Avoid contact with acids to avoid possible violent reaction.
- Containers, even those that have been emptied, will retain product residue and vapor and should be handled as if they were full.
- If product is added too rapidly, or without stirring, and becomes concentrated at the bottom of a mixing vessel, excessive heat may be generated, resulting in DANGEROUS boiling and spattering.

Special Mixing and Handling Instructions

- Considerable heat is generated when product is mixed with water. Therefore, when making solutions, ALWAYS wear ALL protective clothing described in Section 8 of this MSDS. NEVER add water to product. ALWAYS add product, with constant stirring, slowly to surface lukewarm (80-100 degree F) water, to assure product is being completely mixed as it is added. If product is added too rapidly, or without stirring, and becomes concentrated at the bottom of a mixing vessel, excessive heat may be generated, resulting in DANGEROUS boiling and spattering.
- Avoid contact with aluminum, tin, zinc, and alloys containing these metals. Avoid contact with leather, wool, acids, organic halogen compounds and organic nitro compounds.
- Product can react VIOLENTLY with acids, aldehydes, and many other organic chemicals.
- Before adding product, ALWAYS empty and clean containers of all residues to avoid a possible VIOLENT reaction between product and unknown residue.
- Returnable containers should be shipped in accordance with supplier's recommendations. Return shipments should comply with all federal, state and DOT regulations. All residues should be removed from containers prior to disposal.

Storage

- Keep container tightly closed and properly labeled.
- Dikes should hold 110% of storage volume.
- Aluminum is not an acceptable material of construction with this product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

- No special ventilation required under normal use.
- Where engineering controls are not feasible use adequate local exhaust ventilation wherever mist, spray or vapor may be generated.

Personal Protection

Respiratory:

- Respiratory protection is not required under normal use.
- If needed, wear an approved NIOSH/MSHA respirator.

Eye/Face:

- Wear chemical safety goggles. (ANSI Z87.1)
- When appropriate, use a face shield to protect against splashing.

Skin:

- Wear chemical resistant gloves such as rubber, neoprene or vinyl.
- Wash contaminated clothing and dry before reuse.
- Whenever there is a possibility of splash or contact, wear chemical resistant clothing and boots.
- Discard shoes that cannot be decontaminated.

Other:

- Emergency shower and eyewash facility should be in close proximity. (ANSI Z358.1)

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Pale yellow
Odor:	Chlorine odor
Boiling Point	212 degrees F
Melting Point	ND
Specific Gravity (Water = 1)	1.217
Solubility in Water	Completely soluble
Vapor Pressure (Air = 1)	1
Vapor Density (Air = 1)	1
Evaporation Rate (Butyl acetate = 1)	1

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable.
Reacts with:	Air, water and other acids.
Hazardous Polymerization:	Will not occur.

Comments:

- Avoid direct contact with water.
- Product is corrosive to tin, aluminum, zinc and alloys containing these metals and will react with these metals in powder form. Avoid contact with leather, wool, acids, organic halogen compounds, or organic nitro compounds. See Handling and Storage in Section 7.

Hazardous Decomposition Products: None.

11. TOXICOLOGICAL INFORMATION

Data Not Available

12. ECOLOGICAL INFORMATION

Data Not Available

13. DISPOSAL INFORMATION

Dispose of all waste and contaminated equipment in accordance with all applicable federal, state and local health and environmental regulations.

14. TRANSPORT INFORMATION

DOT Proper Shipping Name:	Corrosive liquid, basic, inorganic, n.o.s. (Potassium Hydroxide, Sodium Hypochlorite)
DOT Hazard Class:	8 (corrosive)
DOT Identification Number:	UN 3266
DOT Packaging Group:	II
DOT Hazardous Substance:	RQ 1,000 Lbs. (Potassium Hydroxide) RQ 100 Lbs. (Sodium Hypochlorite)
DOT Marine Pollutant (s):	Not applicable
Additional Description Requirement:	Not applicable

15. REGULATORY INFORMATION

SARA Title III

To aid our customers in complying with regulatory requirements, the following chemicals fall under SARA Title III Hazard categories as listed in 40.CFR.370. Please consult these regulations for details.

<u>Chemical Name</u>	<u>CAS Number</u>
Potassium Hydroxide	1310-58-3
Sodium Hypochlorite	7681-52-9

16. OTHER INFORMATION

For additional non-emergency health, safety or environmental information, contact:

Chemical Systems
6429 West Jones Avenue
Zellwood, FL 32798
407-886-2329

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