SAFETY DATA SHEET
Chlor-O-Foam

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Code: HIGHSI-002-BULK

Product Name: Chlor-O-Foam

Company Name: High Sierra
P. O. Box 848
Chippewa Falls, WI 54729

Phone Number: +1 (715)723-4915

Emergency Contact: CHEMTREC

Phone Number: +1 (800)424-9300

2. HAZARDS IDENTIFICATION

Acute Toxicity: Oral, Category 4
Skin Corrosion/Irritation, Category 1A
Corrosive To Metals, Category 1
Aquatic Toxicity (Acute), Category 2
Serious Eye Damage/Eye Irritation, Category 1

GHS Signal Word: **Danger**

GHS Hazard Phrases:
H290 - May be corrosive to metals.
H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.
H401 - Toxic to aquatic life.

GHS Precaution Phrases:
P102 - Keep out of reach of children.
P103 - Read label before use.
P262 - Do not get in eyes, on skin, or on clothing.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P280 - Wear protective gloves/protective clothing/eye protection.
P221 - Take any precaution to avoid mixing with combustibles, acid products, and ammoniated products.

GHS Response Phrases:
P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with plenty of water for 15 minutes.
P332+313 - If skin irritation occurs, get medical advice/attention. P363 - Wash contaminated clothing before reuse.
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P352 - Wash with plenty of water for 15 minutes. P315 - Get immediate medical advice/attention.
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P315 - Get immediate medical advice/attention.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P342 - If experiencing respiratory symptoms: P313 - Get medical advice/attention.

GHS Storage and Disposal Phrases:
P405 - Store locked up.
P501 - Dispose of contents/container in accordance to local, state and federal regulations.

OSHA Regulatory Status: This material is classified as hazardous under OSHA regulations.

Potential Health Effects (Acute and Chronic):

Inhalation: May be harmful if inhaled. Causes chemical burns to the respiratory tract. May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema.

Skin Contact: May cause skin irritation. Causes skin burns. Causes redness and pain. May be harmful if absorbed through the skin.

Eye Contact: Causes severe eye burns. May cause irreversible eye injury. Causes redness and pain.

Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns. Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
7320-34-5	Potassium pyrophosphate	< 5.0 %
1310-58-3	Potassium hydroxide	<15.0 %
1643-20-5	Surfactant	< 5.0 %
7681-52-9	Sodium hypochlorite	< 5.0 %

4. FIRST AID MEASURES

Emergency and First Aid Procedures:

In Case of Inhalation: Remove from exposure and move to fresh air immediately. Get medical aid.

In Case of Skin Contact: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

In Case of Eye Contact: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In Case of Ingestion: Never give anything by mouth to an unconscious person. If victim is conscious and alert, give 2-4 cupfuls of water. Get medical attention immediately.

Note to Physician: Treat symptomatically and supportively. Show this safety data sheet to the doctor in attendance.

5. FIRE FIGHTING MEASURES

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

Suitable Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Fire Fighting Instructions: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Flammable Properties and Hazards: Not flammable or combustible.

Hazardous Combustion Products: Hazardous decomposition products formed under fire conditions: carbon monoxide, carbon dioxide, Carbon oxides.

6. ACCIDENTAL RELEASE MEASURES

Protective Precautions, Protective Equipment and Emergency Procedures: Use proper personal protective equipment as indicated in Section 8.

Environmental Precautions: Do not let product enter drains, sewers, watersheds or water systems.

Steps To Be Taken In Case Material Is Released Or Spilled: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.
Clean up spills immediately, observing precautions in Protective Equipment section. Ensure adequate ventilation.

7. HANDLING AND STORAGE

Precautions To Be Taken in Handling: Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Avoid extremely high temperature.

Precautions To Be Taken in Storing: Store in a cool, dry, well-ventilated area away from incompatible substances. Store in a tightly closed container. Keep container closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
7320-34-5	Potassium pyrophosphate	No data.	No data.	No data.
1310-58-3	Potassium hydroxide	PEL: 2.0 mg/m3	CEIL: 2 mg/m3	No data.
1643-20-5	Surfactant	No data.	No data.	No data.
7681-52-9	Sodium hypochlorite	No data.	TLV: 0.5 ppm as Cl2 STEL: 1 ppm as Cl2	No data.

Respiratory Equipment (Specify Type): Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Eye Protection: Splash proof safety goggles.

Protective Gloves: Wear appropriate protective gloves to prevent skin exposure. Rubber or neoprene gloves.

Other Protective Clothing: Wear appropriate protective clothing to prevent skin exposure.

Engineering Controls (Ventilation etc.): Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Work/Hygienic/Maintenance Practices: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States:	[ ] Gas [X] Liquid [ ] Solid
Appearance and Odor:	Liquid. Light yellow. Transparent.
Melting Point:	No data.
Boiling Point:	No data.
Flash Pt:	No data.
Evaporation Rate:	No data.
Flammability (solid, gas):	No data available.
Explosive Limits:	LEL: No data. UEL: No data.
Vapor Pressure (vs. Air or mm Hg):	No data.
Vapor Density (vs. Air = 1):	No data.
Specific Gravity (Water = 1):	1.144 - 1.164
Solubility in Water:	No data.
Percent Volatile:	No data.
Autoignition Pt:	No data.
Viscosity:	225 - 275 2@30RPM at 25.0 C

10. STABILITY AND REACTIVITY

Stability:	Unstable [ ] Stable [X]
Conditions To Avoid - Instability:	Incompatible materials, Excess heat, Light.
Incompatibility - Materials To Avoid:	Strong oxidizing agents, ammonia, Acids, metals.
Hazardous Decomposition or Byproducts:	oxides of potassium, hydrogen gas, Hydrogen chloride, chlorine, sodium oxide.
Possibility of Hazardous Reactions:	Will occur [ ] Will not occur [X]
Conditions To Avoid - Hazardous Reactions:	No data available.

11. TOXICOLOGICAL INFORMATION

Toxicological Information:

Epidemiology: No information found.
Teratogenicity: No information available.
Reproductive Effects: No information found.
Mutagenicity: No information found.
Neurotoxicity: No information found.

CAS# 1310-58-3: Potassium hydroxide: Acute toxicity, LD50, Rat, 13.00 . Result: Blood:Tumors. Immunological Including Allergic: Autoimmune (multiple organ involvement).
Standard Draize Test, Skin, Species: Guinea pig, 50.00 MG, 24 H. Result: Behavioral: Food intake (animal). Nutritional and Gross Metabolic:Weight loss or decreased weight gain.

Irritation or Corrosion:

Other Studies: CAS# 1310-58-3:
Acute toxicity, LD50, Oral, Rat, 273 mg/kg
Other Studies: CAS# 1310-58-3:
Standard Draize Test, Skin, Species: Rabbit, 50.0 mg, 24H

Other Studies: CAS# 7320-34-5
Acute toxicity, LD50, Dermal, Rabbit: 4640 mg/kg
Acute toxicity, LD50, Oral, Rat: 2444 mg/kg

Other Studies: CAS# 7681-52-9:
Standard Draize Test, Eyes, Species: Rabbit, 1.310 mg, Mild

Other Studies: CAS# 7681-52-9:
Acute toxicity, LD50, Oral, Mouse, 5800 mg/kg

Other Studies: SurfactantCAS# 1643-20-5:
Acute toxicity, LD50, Dermal, Rabbit: > 2000 mg/kg
Acute toxicity, LD50, Oral, Rat: 1064 mg/kg

Carcinogenicity/Other Information:

CAS# 7320-34-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 7681-52-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 1310-58-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65. Carcinogenicity.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
7320-34-5	Potassium pyrophosphate	n.a.	n.a.	n.a.	n.a.
1310-58-3	Potassium hydroxide	n.a.	n.a.	n.a.	n.a.
1643-20-5	Surfactant	n.a.	n.a.	n.a.	n.a.
7681-52-9	Sodium hypochlorite	n.a.	n.a.	n.a.	n.a.

12. ECOLOGICAL INFORMATION

General Ecological Information:
Environmental: No information found.
Physical: No information found.

CAS# 7320-34-5: Potassium pyrophosphate: LC50, Medaka, High-Eyes (Oryzias latipes), 590000. , 24 H. Result: Affected fish stopped schooling behavior. Affected fish became hyperactive. Fish were overreactive to external stimuli. Affected fish swam at or near surface. No loss of equilibrium observed.

Results of PBT and vPvB assessment:
Other Studies: CAS# 1310-58-3:
LC50, Western Mosquitofish (Gambina affinis), adult(s), 80000 ug/L, 96H, Mortality

Other Studies: CAS# 7320-34-5:
LC50, Zebra mussel (Dreissna polymorpha), adult(s), 94000 ug/L, 96H, Mortality

Other Studies: CAS# 7681-52-9
LC50, Rainbow trout (Oncorrhynchus mykiss), 59.00 ug/L, 96H, Mortality
LC50, Water flea (Daphnia magna), 32.00 ug/L, 48H, Mortality
LC50, Bleak (Alburnus alburnus), 30000 - 35000 ug/L, 96H, Mortality.

Other Studies: SurfactantCAS# 1643-20-5:
LC50, Fish, 2.67 mg/L, 96H, Mortality

Persistence and Degradability:
No data available.

Bioaccumulative Potential:
No data available.

Mobility in Soil:
No data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. Observe all federal, state, and local environmental regulations.

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (Potassium hydroxide, Sodium hypochlorite)
DOT Hazard Class: 8 CORROSIVE
UN/NA Number: UN3264 **Packing Group:** II

15. REGULATORY INFORMATION

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

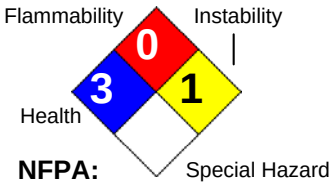
CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
7320-34-5	Potassium pyrophosphate	No	No	No
1310-58-3	Potassium hydroxide	No	Yes 1000 LB	No
1643-20-5	Surfactant	No	No	No
7681-52-9	Sodium hypochlorite	No	Yes 100 LB	No

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
7320-34-5	Potassium pyrophosphate	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: No
1310-58-3	Potassium hydroxide	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: Title 8; MA Oil/HazMat: Yes; MI CMR, Part 5: Part 5; NJ EHS: Yes - 1571; NY Part 597: Yes; PA HSL: Yes - E
1643-20-5	Surfactant	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: No
7681-52-9	Sodium hypochlorite	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: Title 8; MA Oil/HazMat: Yes; MI CMR, Part 5: Part 5; NJ EHS: Yes - 1707; NY Part 597: Yes; PA HSL: Yes - E

16. OTHER INFORMATION

Revision Date: 05/19/2015

Hazard Rating System:



Additional Information About This Product: No data available.

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