



your partner in food safety

SDS

Safety Data Sheet

1) Product Identification

Product Name: BOSS--Caustic Chlor CIP NF

Product Code: BOSS 7

Recommended Use: Chlorinated alkaline cleaner for C.I.P. applications in the food and beverage industry.

Producer: Birko Corporation
9152 Yosemite Street
Henderson, CO 80640-8027

Contact Information: (303) 289-1090 or 1-800-525-0476

Emergency Number: CHEMTREC 1-800-424-9300

2) Hazard(s) Identification

Health	Environmental	Physical
Acute Toxicity Cat. 4 (oral) Skin Corrosion Cat. 1B Eye Effects Cat. 1	Aquatic Toxicity Acute Cat. 3	Corrosive Cat. 1

Labeling:



Symbol:

Signal Word: Danger

Hazard Statement(s): Causes irreversible eye damage. Harmful or fatal if swallowed. Causes burns. Do not get into eyes, on skin, or on clothing. Corrosive to certain types of metals.

Precautionary Statement(s): Use rubber gloves, protective splash-proof goggles, and protective clothing. Remove contaminated clothing and wash before re-use. Do not contaminate food, feed, or water. Keep container closed when not in use.

3) Composition/ Information on Ingredients

Name(s)	Synonym(s)	CAS Number	Weight %
Sodium Hydroxide	Caustic Soda	1310-73-2	< 20%
Potassium Hydroxide	Liquid Potash	01310-58-3	< 5%
Sodium Hypochlorite	Bleach	7681-52-9	<5%

4) First-Aid Measures

Inhalation	Skin Contact	Eye Contact	Ingestion
Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.	Immediately remove contaminated clothing or shoes, wipe excess from skin and flush with plenty of water for at least 15 minutes. Use soap if available or follow by washing with soap and water. Do not re-use clothing until thoroughly cleaned get medical attention.	Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention.	DO NOT induce vomiting. Rinse mouth with water. If conscious, give large quantities of water or milk and get immediate medical attention. Never give anything by mouth to an unconscious person!

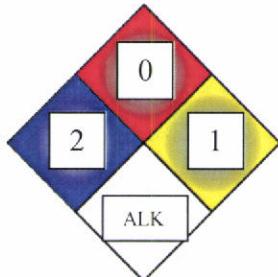
5) Firefighting Measures

Suitable Extinguishing Media: Water, Carbon Dioxide, Dry Chemical, and Foam Blanket

Unsuitable Extinguishing Media: N/A

Specific Hazards: Always wear self-contained breathing apparatus when fighting a chemical fire.

Special Protective Actions for Fire-Fighters: Chlorine Gas liberated during combustion. Wear self-contained breathing apparatus and full protective gear. Stay upwind and keep out of low areas.



6) Accidental Release Measures

Personal Precautions: Be sure to use all necessary Personal Protective Equipment

Environmental Precautions: Avoid contamination of food, feed, sewers, waterway, or groundwater.

Methods and Materials for Containment and Clean-Up: Capture material and contain for disposal.

Do not use combustible absorbents.

7) Handling and Storage

Precautions for Safe Handling: Do not contaminate food, feed, or natural water. Supplier is not responsible for disposition of this product. Do not reuse container. Maintain an eyewash station, and safety shower in product handling areas.

Conditions for Safe Storage: Keep container closed when not in use. Store in a cool, dry, and well-ventilated location. Keep away from heat and incompatible materials.

8) Exposure Controls and Personal Protection

Appropriate Engineering Controls: Ventilation: Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

Exposure Limits:

Name (CAS-No.)	PEL	TWA	Ceiling	IDLH
Sodium Hydroxide (01310-73-2)	2 mg/m ³	ACGIH 2mg/m ³ OSHA 2mg/m ³	ACGIH 2mg/m ³ OSHA 2mg/m ³	10 mg/m ³
Potassium Hydroxide (01310-58-3)	NONE	ACGIH 2mg/m ³	ACGIH 2mg/m ³	NONE

Personal Protective Equipment

Eye/Face	Skin	Gloves	Boots
 			

Eye/Face: Safety glasses with Side shields. Wear chemical safety goggles with face shield when appropriate.

Skin: Wear chemical resistant clothing and rubber boots.

Gloves: Wear appropriate chemical resistant gloves.

Respiratory: Use only when concentrations exceed exposure limits. If limits are exceeded a NIOSH approved respirator is required. If eye irritation occurs use a full face style mask. When vapor concentrations are above 10 ppm or in a spill emergency a NIOSH approved self-contained breathing apparatus or airline respirator, with full-face piece is required. If respirators are warranted in the workplace a respiratory protection programs must meet 29 CFR 1910.134, and be followed.

Protective Material Types: Butyl rubber, natural rubber, neoprene, nitrile, polyvinyl chloride (PVC), or Tychem (R)

9) Physical and Chemical Properties

Physical Form: Liquid

Appearance: Off white colloidal dispersion

Odor: Chlorinous

pH: (1% solution) 11-14

Boiling Point: 212-200° F

Evaporation Rate: < 1

Flammability: Not flammable

Vapor Density: > 1

Specific Gravity: 1.2-1.3

Solubility: 100%

10) Stability and Reactivity

Chemical Stability: Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions: Will not occur.

Conditions to Avoid: Mixing with acids and other incompatible materials may cause splattering and release of large amounts of heat.

Materials to Avoid: Any acidic material, ammonia, urea, oxidizable materials and metals, such as nickel, copper, tin, aluminum, and iron.

Hazardous Decomposition Products: Chlorine Gas liberated during combustion.

11) Toxicological Information

Acute Toxicity:

Test	Results	Basis
Oral LD50 (Rat)	> 8000 mg/kg	Product test data
Inhalation LC50 (Rat)	10.5 mg/l	Product test data

Summary Comments: The severity of the tissue damage is a function of its concentration, the length of tissue contact time, and local tissue conditions. After exposure there may be a time delay before irritation

and other effects occur. This material is a strong irritant and is corrosive to the skin, eyes, and mucous membranes. Skin contact with this material may cause severe irritation and corrosion of tissue. Eye contact can cause severe irritation, corrosion with possible corneal damage and blindness. Ingestion may cause irritation, corrosion/ulceration, nausea, and vomiting.

Sub-chronic/Chronic Toxicity:

Test	Results	Comments
N/A	N/A	N/A

Summary Comments: In general, chronic effects are due to long-term irritation. This material may cause dermatitis on the skin, or recurrent corneal ulceration and visual disturbances.

Medical conditions aggravated by exposure: Respiratory system (including asthma and other breathing disorders)

12) Ecological Information

Toxicity:

Test	Results
Daphnia Magna LC50	24 hours 500 mg/l
Zebra Fish Static LC50	24 hours 500 mg/l

Persistence and Degradability: Not established

Bioaccumulative Potential: This material is believed not to bioaccumulate.

Mobility in Soil: Not established

Other Adverse Effects: Not established

13) Disposal Considerations

Disposal Method: Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D002

14) Transport Information

UN Number: UN1760

UN Proper Shipping Name: Corrosive Liquids, n.o.s., (Sodium hydroxide, Sodium Hypochlorite)

Transport Hazard Class (es): 8

Packing Group: II

Environmental Hazard(s): N/A

15) Regulatory Information

US Regulations:

CERCLA Sections 102a/103 Hazardous substances (40 CFR 302.4):

Sodium Hypochlorite: 100 lbs. RQ on 100% active basis

Sodium Hydroxide: 1000 lbs. RQ on 100% active basis

SARA Title III SARA Sections 311/312 Hazardous Categories (40 CFR 370.21):

Acute: Yes

Chronic: No

Fire: No

Reactive: No

Sudden Release: No

State Regulations:

California Proposition 65: This product is not listed

California Right to Know Hazardous Substance List:

Sodium Hypochlorite 7681-52-9

Sodium Hydroxide 1310-73-2

Potassium Hydroxide 1310-58-3

New Jersey Right to Know Hazardous Substance List:

Sodium Hypochlorite 7681-52-9

Sodium Hydroxide 1310-73-2

Potassium Hydroxide 1310-58-3

Pennsylvania Right to Know: Hazardous Substance List:

Sodium Hydroxide 1310-73-2

Potassium Hydroxide 1310-58-3

Canadian Regulations:

Controlled Products Regulations (CPR): This product has been classified in accordance with the criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the CPR.

WHMIS Classification: E

National Inventory Status: U.S. Inventory (TSCA): All the components of this substance are listed on or exempt from the inventory.

TSCA 12(b) Export Notification: Not Listed

Canada Inventory (DSL/NDSL): All components of this product are listed on the DSL

16) Other Information

GHS

4	FLAMMABILITY
2	HEALTH
2	REACTIVITY
J	Personal Protection

Hazard Index

1-Extreme Hazard

2-High

3-Moderate

4-Low Hazard

Preparer: Ramsey Johnson

Approved By: Terry L. McAninch

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