

# S A F E T Y   D A T A   S H E E T



**3141 Clifty Drive • Madison, IN 47250**

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**NAME:**

**CHALLENGE**

**TYPE:**

Chlorinated Alkaline Cleaner

**PRODUCT #**

229001

**FOR INDUSTRIAL USE ONLY – KEEP OUT OF THE REACH OF CHILDREN**

### EMERGENCY RESPONSE INFORMATION:

CHEMTREC

800-424-9300

24-Hour Service

Company Offices:

812-273-6000

Weekdays

**PREPARED DATE:**

11-17-15

**PREPARED BY:**

David Craft

## SECTION 2: HAZARDS IDENTIFICATION

**GHS Classification**

Corrosive to Metals	Category 1	H290
Acute Toxicity Oral	Category 4	H302
Skin Corrosion/Irritation	Category 1A	H314
Serious Eye Damage/Eye Irritation	Category 1	H318
Aquatic Toxicity (Acute)	Category 1	H400

**Signal Word**

**DANGER**

**Symbol**



**Hazard Statements**

H290	May be corrosive to metals.
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage.
H302	Harmful if swallowed.
H400	Very toxic to aquatic life.

**Precautionary Statements**

P260	Do not breathe mist, spray, vapors.
P264	Wash hands, forearms, and exposed areas thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear eye protection, face protection, protective clothing, protective gloves.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower
P304 + P340	IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor / physician.
P321	Specific treatment (see Section 4).
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents / container according to local, regional, national and international regulations.

# SAFETY DATA SHEET

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<u>COMPONENT</u>	<u>SYNONYM</u>	<u>CAS NO.</u>	<u>% BY WEIGHT</u>
Potassium hydroxide	Caustic potash	1310-58-3	10 - 20
Sodium hypochlorite	None	7681-52-9	1 - 10

\*If Chemical Name/CAS No is "proprietary" and/or % By Weight is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret\*

## SECTION 4: FIRST AID MEASURES

### DESCRIPTION OF FIRST AID MEASURES:

<b>EYES:</b>	Immediately flush with large quantities of cool water continuously for at least 15 minutes. Call a physician.
<b>SKIN:</b>	Immediately flush with large quantities of cool water continuously for at least 15 minutes. Call a physician. Remove contaminated clothing and shoes. Do not put contaminated clothing and shoes back on. Wash clothing and shoes thoroughly in soap and water; rinse repeatedly in clean water and dry before reuse.
<b>INGESTION:</b>	If conscious, immediately give large quantities of water. DO NOT INDUCE VOMITING. Call a physician at once. DO NOT give anything by mouth if the person is unconscious or if having convulsions.
<b>INHALATION:</b>	Remove subject to fresh air. Give artificial respiration if necessary. Get medical attention immediately.
<b>SIGNS AND SYMPTOMS OF EXPOSURE:</b>	Contacted areas will exhibit irritation or burns. Burns may not be immediately apparent. Eye contact may cause permanent injury, including blindness. If ingested, may cause nausea and vomiting. May act as a sensitizer.
<b>PRIMARY ROUTE(S) OF ENTRY:</b>	Eyes, skin, inhalation.

### MOST IMPORTANT SYMPTOMS / EFFECTS, ACUTE AND DELAYED:

<b>EYE CONTACT:</b>	Causes serious eye damage.
<b>SKIN CONTACT:</b>	Corrosive. Causes burns.
<b>INGESTION:</b>	Harmful if swallowed.
<b>INHALATION:</b>	Causes burns to alimentary canal and mucous membranes..
<b>CHRONIC SYMPTOMS:</b>	None expected under normal conditions of use.

### INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY:

If you experience any of the symptoms / effects listed above seek medical advice.

## SECTION 5: FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA:

Use extinguishing media as appropriate for surrounding fire.

### SPECIFIC HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Not considered flammable or explosive. Hazardous reactions will not occur under normal conditions.

### ADVICE FOR FIRE FIGHTERS:

Wear self-contained breathing apparatus and full protective clothing. Use water spray to keep containers cool. **Hazardous Combustion Products:** Chlorine gas, carbon monoxide, carbon dioxide.  
Chlorine gas is an oxidizer and will support combustion.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES:

Avoid all contact with skin, eyes and clothing. Avoid breathing. Wear nitrile, neoprene, or natural rubber gloves. Goggles and faceshield necessary. Wear suitable protective clothing. Use NIOSH / MSHA approved positive pressure self-contained breathing apparatus when any material is involved in a fire.

### METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

Contain liquid spills with sand and absorb on inert material such as Hazorb or clay. Dispose with solid waste. See Waste Disposal Method. Avoid breathing vapors. Ventilate areas. Do not discharge to sewers or waterways without proper treatment.

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## SECTION 7: HANDLING AND STORAGE

### PRECAUTIONS FOR SAFE HANDLING:

Wear proper safety equipment when handling this product. Handle in accordance with good industrial hygiene and safety procedures. DO NOT MIX WITH ACIDS! THIS WILL FORM TOXIC CHLORINE GAS!

### CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES:

Store in a cool, dry area away from heat and direct sunlight to avoid deterioration. Store away from acids and reducing agents. Keep container closed when not in use. Keep from freezing.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE GUIDELINES:

#### CHEMICAL IDENTITY

Potassium hydroxide  
Sodium hypochlorite

#### CAS NO.

1310-58-3  
7681-52-9

#### OSHA PEL

N.E.  
N.E.\*\*

#### ACGIH TLV

2 mg / M<sup>3</sup>\*  
N.E.\*\*

\*Denotes ceiling limit. \*\*Manufacturer recommends a ceiling limit of 0.5 ppm.

### ENGINEERING CONTROLS:

Use good ventilation. Local exhaust is recommended if TLVs are exceeded.

### INDIVIDUAL PROTECTION MEASURES:

Selection of personal protective equipment should be based upon the anticipated exposure and made in accordance with OSHA's Personal Protective Equipment Standard found in 29 CFR 1910 Subpart I. The following information may be used to assist in PPE selection.

### RESPIRATORY PROTECTION:

In absence of proper environmental control, use NIOSH / MSHA approved positive pressure supplied air respirator for mists where airborne exposure is excessive.

### SKIN PROTECTION:

Impermeable type rubber gloves. Other equipment as required to avoid contact.

### EYE PROTECTION:

Goggles and faceshield necessary.

### GENERAL HYGIENE CONSIDERATIONS:

Eyewash facility and emergency shower should be in close proximity. Always wash hands after handling any chemical.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE:

Off-white liquid.

### ODOR:

Mild chlorine

### ODOR THRESHOLD:

Not available.

### pH (100%):

13.8 – 14.2

### MELTING POINT/FREEZING POINT

28°F (-2.2)

### INITIAL BOILING POINT AND BOILING RANGE

215°F (101.7°C)

### FLASH POINT (METHOD USED)

Not available.

### EVAPORATION RATE

Not available.

### FLAMMABILITY (SOLID, GAS)

Not available.

### UPPER/LOWER FLAMMABLE OR EXPLOSIVE LIMIT

Not available.

### VAPOR PRESSURE

Not available.

### VAPOR DENSITY

Not available.

### SPECIFIC GRAVITY

1.20

### SOLUBILITY IN WATER

Complete.

### PARTITION COEFFICIENT: N-OCTANOL/WATER

Not available.

### AUTO-IGNITION TEMPERATURE

Not available.

### VISCOSITY, DYNAMIC

Not available.

### DECOMPOSITION TEMPERATURE

Not available.

### VISCOSITY

Not available.

## SECTION 10: STABILITY AND REACTIVITY

### REACTIVITY:

Will react with acids and ammonia to release toxic chlorine gas.

### CHEMICAL STABILITY:

Stable under recommended handling and storage conditions (see Section 7).

### POSSIBILITY OF HAZARDOUS REACTIONS:

Hazardous polymerization will not occur.

### CONDITIONS TO AVOID:

Heat and open flame.

### INCOMPATIBLE MATERIALS:

Acids, ammonia, amines, easily oxidized materials. DO NOT MIX WITH ACIDS! THIS WILL FORM TOXIC CHLORINE GAS!

### HAZARDOUS DECOMPOSITION PRODUCTS:

Chlorine gas, carbon monoxide, carbon dioxide

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## SECTION 11: TOXOLOGICAL INFORMATION

<b>ACUTE TOXICITY:</b>	Not classified.
<b>LD50 AND LC50 DATA:</b>	Not available.
<b>ROUTES OF EXPOSURE / SYMPTOMS</b>	
<b>EYES:</b>	DANGER! Causes burns.
<b>SKIN:</b>	DANGER! Causes burns.
<b>INGESTION:</b>	WARNING! Harmful if swallowed
<b>INHALATION:</b>	DANGER! Causes burns to alimentary canal and mucous membranes.
<b>GERM CELL MUTAGENICITY:</b>	Not classified.
<b>TERATOGENICITY:</b>	Not available.
<b>CHRONIC EFFECTS / CARCINOGENICITY:</b>	This material contains no ingredient above de minimus concentrations known or suspected to cause cancer.
<b>SPECIFIC TARGET ORGAN TOXICITY (Repeated exposure):</b>	Not classified.
<b>REPRODUCTIVE TOXICITY:</b>	Not classified.
<b>SPECIFIC TARGET ORGAN TOXICITY (Single exposure):</b>	Not classified.
<b>ASPIRATION HAZARD:</b>	Not classified.
<b>COMPONENT INFORMATION:</b>	
Potassium hydroxide	LD50 Oral Rat: 284 mg/kg LD50 Dermal: No data LC50 Inhalation: No Data
Sodium hypochlorite	LD50 Oral Rat: 8910 mg/kg LD50 Dermal Rabbit: >10,000 mg/m <sup>3</sup> LC50 Inhalation: No data

## SECTION 12: ECOLOGICAL INFORMATION

**ECOTOXICITY** The ecotoxicity of this product is not known

### COMPONENT INFORMATION

Potassium hydroxide	<b><u>Freshwater Fish Data:</u></b> LC50 Mosquito fish: 80 mg/L/96hr LC50 Fathead monnow: 179 mg/L/96 hr <b><u>Invertebrate Toxicity Data:</u></b> EC50 <i>daphnia magna</i> : 60 ppm
Sodium hypochlorite	<b><u>Freshwater Fish Data:</u></b> No data <b><u>Invertebrate Toxicity Data:</u></b> No data

<b>PERSISTENCE AND DEGRADABILITY:</b>	Material is inorganic and not subject to biodegradation.
<b>BIOACCUMULATIVE POTENTIAL:</b>	Not available.
<b>MOBILITY IN SOIL:</b>	Not available.
<b>OTHER ADVERSE EFFECTS:</b>	This material contains no hazardous air pollutants (HAPS).

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## SECTION 13: DISPOSAL CONSIDERATIONS

### WASTE DISPOSAL METHOD

Normal for alkaline, chlorine and phosphate containing wastes. Sodium metabisulfite may be used to neutralize chlorine. May require pH adjustment for neutralization. Dispose in accordance with local, state and federal regulations.

## SECTION 14: TRANSPORTATION INFORMATION

### DOT PROPER SHIPPING NAME:

Corrosive liquid, basic, inorganic, n.o.s. (contains potassium hydroxide, and sodium hypochlorite)

### HAZARD CLASS:

8

### IDENTIFICATION NUMBER:

UN3266

### PACKING GROUP:

III

### EMERGENCY RESPONSE GUIDE:

ERG #154

## SECTION 15: REGULATORY INFORMATION

### VOC:

0.04 pounds per gallon (5 grams per liter).

### TSCA STATUS

All ingredients are listed on the TSCA inventory.

### CERCLA REPORTABLE QUANTITY

1,000 pounds for potassium hydroxide (approximately 714 gallons)

100 pounds for sodium hypochlorite (approximately 500 gallons)

### SARA 311 / 312 HAZARD CLASSES

<b>x</b>	ACUTE HEALTH
	FIRE
	SUDDEN RELEASE OF PRESSURE
	CHRONIC HEALTH
	REACTIVE

### SARA 312 INFORMATION

Storage of 10,000 pounds or more may require filing a Tier 2 form. Threshold planning quantity for reporting is 10,000 pounds. This material is not an extremely hazardous substance (EHS).

### SARA 313 INFORMATION

This material contains the following substances subject to the reporting requirements of Section 313 of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372

#### CHEMICAL NAME

#### CATEGORY CODE

#### CAS NUMBER

#### % BY WEIGHT

NONE

### STATE REGULATORY INFORMATION

### CALIFORNIA PROPOSITION 65

California has not identified the ingredients listed in Section 3 as known to cause cancer or reproductive toxicity.

## SECTION 16: OTHER INFORMATION

### SDS STATUS:

Revised sections 1, 3, and 16 on 11-17-15.

<b>HEALTH</b>	<b>2</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

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