

# Kloriclean

**Liquid Circulation Cleaner**

## DESCRIPTION

*Kloriclean* is a chlorinated, alkaline circulation cleaner and is used daily in dairy operations as well as other food processing plants, canneries and meat and poultry operations. *Kloriclean* is low foaming and highly alkaline with a built-in water conditioner that works very well on protein and starch type soils.

*Kloriclean* is a one-step cleaner specially designed for CIP or COP applications in food processing equipment and lines. It's cost effective formula works well in all water conditions and *Kloriclean* is non-corrosive to stainless steel at recommended use dilutions. Leaves stainless steel bright and shiny and prevents hard water precipitates. *Kloriclean* can be easily tested for appropriate dosage levels.

## SPECIAL INFORMATION

*Kloriclean* is a Canadian Food Inspection Agency (CFIA) approved product for use in registered food processing plants.

*Kloriclean* is BC Kosher approved.

## DIRECTIONS

Use at the rate of 0.25% to 1% of *Kloriclean* by volume with water. Best used at temperature range – 55°C to 80°C (130°F to 175°F).

For specific applications, please contact your Maxim Representative.

## PHYSICAL DATA

Appearance	Clear liquid
Color	Pale yellow
Foam	Low to no foam
Odor	Slight chlorine
pH	13.0 – 13.5

# MATERIAL SAFETY DATA SHEET

## SECTION 1 – PRODUCT/MANUFACTURER'S IDENTITY

Product Name: **KLORICLEAN**

WHMIS CODE: E  
 Proper Shipping Name: POTASSIUM HYDROXIDE, SOLUTION  
 Hazard Class: Class 8, P.G. II  
 UN Number: UN1814

HMIS	
3	Health
0	Flammability
0	Reactivity
C	Personal

Product Use: Chlorinated CIP cleaner.  
 Maxim Technologies Inc.  
 1607 Derwent Way  
 Delta, BC V3M 6K8, Canada  
 Phone: (604) 526-5655

**EMERGENCY PHONE**  
 Canada: Canutec 613-996-6666  
 U.S.A.: Chemtrec 800-424-9300

A=Goggles, B=Goggles & Gloves  
 C=Goggles, Gloves and Apron

ABBREVIATION KEY: N/A=Not Applicable, N/E=Not Established, N/D=Not Determined, > =Greater Than

## SECTION 2 – HAZARDOUS INGREDIENTS INFORMATION

INGREDIENT	CAS NO.	RANGE %	PEL	TLV
<b>SODIUM HYPOCHLORITE</b>	7681-52-9	1.0 - 5.0	N/A	N/E
LD50 (oral rat)	8910 mg/kg			
LD50 (dermal)	N/A			
LC50 (Inhal., rat, 4h)	5250 mg/m3			
<b>POTASSIUM HYDROXIDE</b>	1310-58-3	15.0 - 25.0	N/A	2 ppm
LD50 (oral rat)	273 mg/kg			
LD50 (dermal)	Not Available			
LC50	Not Available			

## SECTION 3 – PHYSICAL DATA

**Color and Odor:** Clear yellow, chlorine odor. **Boiling Point:** N/D **Vapor Pressure (mm HG):** N/A **pH:** 13.0 – 14.0  
**Physical State:** Liquid. **Melting Point:** N/A **Vapor Density:** N/D **Specific Gravity:** 1.36 @ 20°C  
**Coef. Water/Oil Dist:** Greater than 1.0 **Evaporation Rate:** N/D **Solubility in Water:** Soluble **Odor Threshold:** No Data

## SECTION 4 – FIRE AND EXPLOSION HAZARD DATA

**Flash Point and Method:** None combustible. **Sensitivity to Mechanical Impact:** None. **Conditions of Flammability:** None.  
**Flammable Limits:** None known. **Sensitivity to Static Discharge:** None. **Auto ignition Temperature:** None known.  
**Extinguishing Media:** Product is not flammable. Use extinguishing media suitable for surrounding fires.  
**Unusual Fire and Explosion Hazards:** Protective clothing for skin and eye protection to prevent highly alkaline material. Closed containers expose to heat may explode. Spilled material may cause floor slippery.  
**Hazardous Combustion Products:** Thermal decomposition products are toxic and may include oxide of chlorine and sodium.  
**Special Fire Fighting:** Wear full protective equipment, including a NIOSH/MSHA approved, self-contained breathing apparatus for fire fighting situations. Use water spray to cool all nearby fire exposed surfaces.

## SECTION 5 – REACTIVITY DATA

**Chemical Stability:** Unstable under normal storage conditions, Sodium Hypochlorite solution decompose slowly. Decomposition accelerated by heat (above 40 °C) and light.  
**Hazardous Polymerization:** Will not Occur.  
**Incompatibility (material to avoid):** Strong acids, reducing agents, ammonia solutions, organic compounds, heavy metals (i.e. iron, lead, tin, etc.) and their salts.  
**Hazardous Decomposition Products:** Thermal decomposition products are toxic and may include oxide of chlorine and sodium.

## SECTION 6 – TOXICOLOGICAL DATA

**Exposure Limits:** See Section 2 under Hazardous Ingredient. **Routes of Entry:** Skin, eyes, ingestion, inhalation.  
**Irritancy of Product:** Corrosive to skin, eyes and respiratory system. **Carcinogenicity:** Non hazardous by WHMIS criteria.  
**Sensitization:** None known. **Mutagenicity:** Result of tests in animal has been negative.  
**Name of Toxicological Synergistic Product:** None known. **Reproductive Toxicity:** None known.  
**Teratogenicity:** None known.  
**Effects of Chronic Exposure:** Prolonged or repeated exposure may cause productive cough, running nose, redness, pain and drying and cracking of skin.  
**Effects of Acute Exposure to Product:** Product exposure may cause irritation of the nose, throat, and respiratory trace.

## SECTION 7 – PREVENTATIVE AND CONTROL MEASURES

**Respiratory Protection:** If product is misted or sprayed, or used in a confined area, use a NIOSH/MSHA approved dust/mist respirator.  
**Ventilation:** Good general ventilation or local exhaust ventilation for spraying and misting in confined areas.  
**Protective Gloves:** Natural rubber, nitrile or PVC gloves.  
**Eye Protection:** Full face-shield and chemical safety goggles when there is potential for contact.  
**Protective Clothing and Equipment:** Long sleeve coveralls. Eye wash recommended in the immediate work area.  
**Storage and Handling Procedures:** Use good industrial hygiene. Do not get in eyes. Avoid contact with skin, and clothing. Avoid breathing sprays or mists. Store in a cool, dry place away from incompatibles. Vent caps may be required to prevent a build-up of pressure that could cause containers to burst. Do not mix with any other chemicals. Store below 29 °C (84°F). Keep from freezing.  
**Disposal Procedures for Spills or Leaks:** Wear protective equipment. Carefully neutralize by adding 35% hydrogen peroxide at one pint per pound of hypochlorite. Spilled material may cause floor and contact surface slippery. Collect product for recovery or disposal. Contain discharge by constructing dykes or absorbent if release to land or storm water runoff.  
**Waste Disposal Method:** Reuse if possible, or otherwise dispose recovered material in accordance with all local, Provincial or Federal Regulations.  
**Special Shipping Information:** Store at temperatures below 29°C (84°F) and keep from freezing.

## SECTION 8 – EMERGENCY FIRST AID PROCEDURES

**First Aid:**  
 If swallowed, give plenty of clean water to drink to dilute product. Do not induce vomiting. Call a Physician. In case of contact with eyes, flush with clean water for 15 minutes. Get medical attention. For contact with skin, wash with clean water and rinse well. If irritation occurs or persists, get medical attention.

## PREPARATION DATA

PREPARED BY: Technical Service / Regulatory Division      PHONE: 604-526-5655      LAST UPDATE: Dec. 24, 2014  
 THE INFORMATION PROVIDED IN THIS MATERIAL SAFETY DATA SHEET HAS BEEN OBTAINED FROM CURRENT SOURCES AND IS BELIEVED TO BE RELIABLE