

SECTION 1	IDENTIFICATION
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**Product Trade Name:** Kloriclean  
**Recommended Use:** Chlorinated, alkaline circulation cleaner.  
**Restrictions on Use:** For Industrial and Institutional use only  
**Manufacturer:** Maxim Chemical International Inc.  
 1607 Derwent Way, Delta, B.C. Canada V3M 6K8  
 (800) 663-9925  
**Emergency Phone Number/ 24-Hour Number:** Canada: Canutec 613-996-6666  
 U.S.A.: Chemtrec 800-424-9300

SECTION 2	HAZARD IDENTIFICATION
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**Physical Hazards:** CORROSIVE TO METALS  
**Health Hazards:** SKIN CORROSION/IRRITATION - Category 1  
 EYE DAMAGE/IRRITATION - Category 1

**Label Elements:**



**Signal word:** Danger  
**Hazard Statement:** H290 May be corrosive to metals.  
 H314 Causes severe skin burns and eye damage.  
 H318 Causes serious eye damage.

**Precautionary Statements:**

**Prevention:** P234 Keep only in original packaging.  
 P260 Do not breathe dusts or mists.  
 P264 Wash hands or affected area thoroughly after handling.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Responses:** P390 Absorb spillage to prevent material damage.  
 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 [or shower]. P363 Wash contaminated clothing before reuse.  
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P310 Immediately call a POISON CENTER/doctor/physician.  
 P321 Specific treatment (see supplemental first aid information on this label).  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**Storage:** P406 Store in a corrosion resistant container with a resistant inner liner. P405 Store locked up.  
**Disposal:** P501 Dispose of contents/ container to an approved waste disposal plant.

SECTION 3	COMPOSITION/INFORMATION ON INGREDIENTS
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Ingredient	Approx. Wt.%	CAS Number
Sodium Hypochlorite	1-5	7681-52-9
Potassium Hydroxide	10-30	1310-58-3

SECTION 4	FIRST-AID MEASURES
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**Inhalation:** Immediately remove the affected victim to fresh air. If symptoms persist, obtain medical attention. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician if feeling unwell.

**Skin Contact:** Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

**Eye Contact:** Immediately flush with warm running water for at least 15 minutes, holding eyelids open during flushing. Remove contact lenses, if present and easy to do. If irritation persists, repeat flushing and obtain medical attention immediately.

**Ingestion:** Call a physician or poison control center immediately. Rinse mouth. Do not induce

vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

If irritation occurs or persists, get medical attention.

### SECTION 5 FIRE-FIGHTING MEASURES

<b>Extinguishing Media:</b>	Water fog, alcohol foam, or dry chemical.
<b>Flammability:</b>	Not flammable.
<b>Flash Point:</b>	Not flammable.
<b>Special Firefighting Procedures:</b>	Wear NIOSH/MSHA approved, self-contained breathing apparatus for firefighting situation. Use water spray to cool all nearby fire exposed surfaces.
<b>Unusual Fire / Explosion Hazards:</b>	Closed containers exposed to heat may explode. Spilled material may cause floor slippery. May react with zinc, aluminum, tin and other active metals liberating flammable hydrogen gas. Dilution in water evolves large amounts of heat. Reacts with ethyleneimine, primary amines, urea, ammonium salts, methanol to form explosives.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition products are toxic and may include oxide of chlorine and sodium.

### SECTION 6 ACCIDENTAL RELEASE MEASURES

**Environmental Protection Precautions:** Do not release to the environment or water source.  
**Steps To Be Taken In Case Material Is Released Or Spilled:** Wear protective equipment. Soak up spills with absorbents, then dispose of in an appropriate waste container. Keep material away from sewers. Reuse if possible. Otherwise dispose recovered material in accordance with all local, Provincial or Federal regulations.

### SECTION 7 HANDLING AND STORAGE

**Precautions To Be Taken In Handling And Storage:** 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. Keep container closed when not in use. Do not mix with any other chemicals. Store at temperatures below 30°C (86°F) and keep from freezing. Do not mix with acid/ammonia.

### SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Limits:**  
 OSHA (PEL): N/A  
 ACGIH TLV: N/A  
 Other exposure limit: N/A  
**Appropriate Engineering Controls:** Good general ventilation.  
**Individual Protection Measures / Personal Protective Equipment:**  
**Gloves:** Non-permeable gloves (rubber, nitrile) recommended.  
**Masks/Goggles:** Use chemical goggles or safety glasses.  
**Respirator:** Good general ventilation or local exhaust ventilation for spraying and misting in confined areas.  
**Apron:** Rubber/PVC aprons when skin contact may occur.  
**Boots:** Rubber boots.  
**Other Protective Equipment:** Eye wash, safety shower and full protective clothing recommended in the immediate work area.

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear, light yellow/green color.
<b>Odor:</b>	Pungent, chlorine odor.
<b>Odor threshold:</b>	N/A
<b>pH:</b>	>13
<b>Melting point/Freezing point:</b>	N/A
<b>Initial boiling point and boiling range:</b>	N/A
<b>Flash Point:</b>	>100 °C

Evaporation Rate (Water=1):	N/A
Flammability:	Not flammable
Upper/Lower flammability or explosive limits:	None.
Vapor pressure:	N/A
Vapor density:	N/A
Relative density/Specific gravity (Water = 1):	1.4 @ 20 °C
Solubility(ies):	Soluble in water
Partition coefficient: n-octanol/water:	N/A
Auto-ignition temperature:	Not flammable
Decomposition temperature:	N/A
Viscosity:	N/A

### SECTION 10 STABILITY AND REACTIVITY

<b>Chemical stability:</b>	Unstable under normal storage conditions. Sodium hypochlorite solution decompose slowly. Decomposition accelerated by heat (above 40°C) and light.
<b>Possibility of hazardous reactions:</b>	Avoid contact with acid/oxidizers.
<b>Conditions to avoid:</b>	Temperatures above 30°C (86°F) and below 5°C (41°F). Avoid contact with strong reducing agents, organic compounds, lewis or mineral acid, methanol acid, ammonia, urea.
<b>Incompatibility:</b>	Incompatible with acid, ammonia, urea and other organic compounds.
<b>Hazardous Decomposition Products:</b>	Chlorine gas, oxide of sodium. Hydrochloric acid.

### SECTION 11 TOXICOLOGICAL INFORMATION

<b>Likely routes of exposure:</b>	Ingestion, skin and eye contact.
<b>Symptoms:</b>	Corrosive to eyes and skin. May cause productive cough, running nose, redness, pain and drying and cracking of skin. Acute exposure may cause irritation of nose, throat and respiratory trace.
<b>Acute Toxicity Estimates:</b>	Oral >2000 mg/kg, dermal >2000 mg/kg
<b>Carcinogenicity:</b>	Not listed by NTP, IARC, OSHA, ACGIH.

### SECTION 12 ECOLOGICAL INFORMATION

Not required.

### SECTION 13 DISPOSAL CONSIDERATIONS

**Recommended Waste Disposal Methods:** Reuse if possible. Otherwise dispose recovered material in accordance with all local, Provincial or Federal regulations.

### SECTION 14 TRANSPORT INFORMATION

<b>Canadian TDG</b>	
<b>UN Number:</b>	1814
<b>UN Proper Shipping Name:</b>	POTASSIUM HYDROXIDE, SOLUTION
<b>Transport Hazard Class(es):</b>	8
<b>Packing Group:</b>	II

### SECTION 15 REGULATORY INFORMATION

#### HAZARD RATING INFORMATION

4=Extreme  
3=High  
2=Moderate  
1=Slight  
0=Insignificant

#### HMIS

3	Health
0	Flammability
0	Reactivity
C	Personal

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

HMIS Protection  
Group C



All pertinent hazard information has been provided in this SDS, per the requirements of the U.S. Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalent Standards, and the Canadian Workplace Hazardous Materials Identification System Standards (CPR 4).

## SECTION 16 OTHER INFORMATION

### Acronym List:

ACGIH	American Conference of Governmental Industrial Hygienists
CFR	Code of Federal Regulations
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
MSHA	Mine Safety and Health Administration
N/A	Not Available
NIOSH	The National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
TDG	Transportation of Dangerous Goods
TLV	Threshold Limit Value
UN	United Nations
WHMIS	Workplace Hazardous Materials Information System

It is the responsibility of the user to provide a safe workplace, using the health and safety information contained herein as a guide. **Maxim Chemical International Inc.** will accept no liability for damages or loss incurred from the improper handling and use of this product.

The information provided in the Safety Data Sheet has been obtained from current sources and is believed to be reliable.

PREPARED BY: Technical Service/Regulatory Division

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