

SECTION 1 IDENTIFICATION

Product Trade Name: Optima NCL
Recommended Use: Liquid alkaline circulation cleaner, non-chlorinated
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

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

Ingredient	Approx. Wt.%	CAS Number
Potassium Hydroxide	10-30	1310-58-3

SECTION 4 FIRST-AID MEASURES

Inhalation: Immediately remove the affected victim to fresh air. If symptoms persist, obtain medical attention.

Skin Contact: Flood area with cool water for at least 20 minutes or until help arrives. Make sure water doesn't flow onto another part of the person's body or onto you. Don't use a strong stream of water, if possible. As you flush the burn (not before), remove jewelry or articles of clothing with chemical on them, unless they're stuck to the person's body. Don't try to neutralize the burn with acid or alkali. This could cause a chemical reaction that worsens the burn. Don't put antibiotic ointment on the burn.

Eye Contact: Have the person immediately rinse the eye or eyes under a faucet, in a gentle shower, or with a clean container of water. Keep the person's face so that the injured eye is down and to the side. Avoid spraying a high-pressure water stream into the eye or eyes. Flush

with lukewarm water for 15 to 30 minutes. For severe burns, continue flushing until you see a doctor or you arrive in an emergency room. The person should keep the eye open as wide as possible. Wash the person's hands thoroughly to make sure no chemical is still on them. Flush the eye to remove contact lenses. If they do not come out, try to gently remove them AFTER flushing. Do not rub the eye or place a bandage over the eye. While waiting for medical care, have the person wear sunglasses to decrease light sensitivity.

Ingestion: Do not induce vomiting. If the victim is fully conscious, give plenty of clean water to drink to dilute product. Never give anything by mouth if victim is unconscious, is rapidly losing consciousness, or is convulsing. Call a Physician.

SECTION 5 FIRE-FIGHTING MEASURES

Extinguishing Media: Water fog, alcohol foam, or dry chemical.

Flammability: Not flammable.

Flash Point: Not flammable.

Special Firefighting Procedures: Wear NIOSH/MSHA approved, self-contained breathing apparatus for firefighting situation. Use water spray to cool all nearby fire exposed surfaces.

Unusual Fire / Explosion Hazards: Reacts violently with many organic chemicals, especially nitro carbons and chlorocarbons. May react with zinc, aluminum, tin and other active metals liberating flammable hydrogen gas. Dilution in water evolves large amounts of heat.

Hazardous Decomposition Products: Oxides of potassium.

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 store in aluminum, copper, copper alloys and galvanized containers.

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

Appearance: Clear, light brown liquid.

Odor: Mild odor. No added fragrance.

Odor threshold: N/A

pH: >13.0

Melting point/Freezing point:	N/A
Initial boiling point and boiling range:	N/A
Flash Point:	>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):	1.25 @ 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

Chemical stability:	Stable under normal storage conditions.
Possibility of hazardous reactions:	Avoid contact with acid/oxidizers.
Conditions to avoid:	Temperatures above 30°C (86°F) and below 5°C (41°F). Avoid contact with reactive metals.
Incompatibility:	Incompatible with acid, metals and alloys, zinc, tin, aluminum, organic chemicals, nitrocarbons, halocarbons.
Hazardous Decomposition Products:	Oxides of potassium, phosphorus, and other unidentifiable organic compounds.

SECTION 11 TOXICOLOGICAL INFORMATION

Likely routes of exposure:	Ingestion, skin and eye contact.
Symptoms:	Necrosis, tissue destruction, corrosion.
Acute Toxicity Estimates:	Oral >2000 mg/kg, dermal >2000 mg/kg
Carcinogenicity:	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

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

SECTION 15 REGULATORY INFORMATION

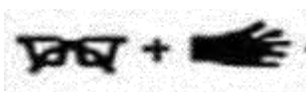
HAZARD RATING INFORMATION

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

HMIS

3	Health
0	Flammability
0	Reactivity
B	Personal

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



**HMIS Protection
Group B**

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

LAST UPDATE: October 9, 2018