



MEGA LAB Manufacturing Co. Ltd.
361 Connie Crescent
Concord, ON, Canada L4K 5R2
Tel: 905.532.9000 Fax: 905.532.9003
Toll Free: 1.877.634.2522

MATERIAL SAFETY DATA SHEET

COMPANY DETAILS

Name: Mega-Lab Manufacturing Co. Ltd.	CANUTEC Emergency #: 1-613-996-6666 (24HR)
Address: 361 Connie Crescent, Concord, ON L4K 5R2 Canada	Website: www.mega-lab.com
Tel: 905-532-9000	Fax: 905-532-9003

SECTION 1: PRODUCT INFORMATION Effective Date: 27/01/2014

Issued by:	Mega-Lab Manufacturing Co. Ltd. 7361 Connie Crescent, Concord, Ontario L4K 5R2 Concord, Ontario, L4K 5R2, Canada
CANUTEC EMERGENCY CONTACT NUMBER:	1-613-996-6666 (24HR)
Trade Name:	AQUAKLOR JACKETED CAPLET
Chemical name:	Calcium Hypochlorite 68%
Chemical abstract no:	N/A
Chemical family:	Hypochlorite, Hypochlorous Acid, Calcium Salt, Calcium Hypochlorite, Chlorinated lime.
NIOSH no.:	N/A
Synonyms:	Oxidizer, sterilizer.
UN no.:	1748
Formula:	$\text{Ca}(\text{OCl})_2$
INCI Name:	N/A

SECTION 2: COMPOSITION INFORMATION

Hazardous component	CAS Number	Amount %	Main Hazard
1. Calcium Hypochlorite	7778-54-3	75% to 85%	Strong Oxidizer 680g/kg
EEC classification:			N/A
R Phrases:			R22-R38, R41

SECTION 3: HAZARDS IDENTIFICATION

Main hazard:	Strong oxidizer, corrosive to skin.
Flammability:	None.
Chemical hazard:	N/A.
Biological hazard:	Currently no evidence.
Reproductive hazard:	None currently known.
Eye effects – eyes:	Can cause severe burns, redness and pain.
Health effects – skin:	Can cause severe burns, redness and irritation.

Health effects – ingestion:	Can cause severe burns to the mouth, throat and stomach.
Health effects – inhalation:	Can be extremely destructive to tissues of the mucous membranes and upper respiratory tract, causing burns and irritation to the respiratory system.
Carcinogenicity:	None currently known.
Mutagenicity:	Negative dominant lethal.
Neurotoxicity:	None currently known.

SECTION 4: FIRST AID MEASURES

Product in eye:	Move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.
Product on skin:	Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Rinse out clothes and shoes thoroughly. Get medical attention.
Product ingested:	Do NOT induce vomiting. Immediately get medical attention. Never give anything to an unconscious person by mouth. Get medical attention immediately.
Product inhaled:	Move to fresh air. Medical oxygen may be administered, if available, where breathing is difficult. Seek medical attention immediately.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing media:	Use flooding quantities of water as fog or spray. Use water spray to keep fire-exposed containers cool. Avoid direct contact with water; reacts with water releasing chlorine gas. Fight fire from protected location or maximum possible distance. Do not use dry chemical fire extinguishers containing ammonium compounds. Do not use carbon tetrachloride fire extinguishers. Do not allow water runoff to enter sewers or waterways.
Special hazards:	Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Thermally unstable; at higher temperatures, may undergo accelerated decomposition with release of heat, chlorine gases and oxygen.
Protective clothing:	In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions:	Remove all sources of ignition. Wear NIOSH / MSHA respirator approved for chloride dust. Follow OSHA regulations for respirator use (See 29 CFR 1910.134). Wear goggles, coveralls and rubber, neoprene or PVC gloves and boots
Environmental precautions:	Contamination of soil and water should be prevented. Flush any residual material with large quantities of water. Avoid dispersal of spilled material into waterways, drains, sewer or in soil. Clean up in a manner to minimize contamination with organic material. Do not return material to original container. Place in a fresh container and isolate outside or in a well-ventilated area. Do not seal the container. Wash all contaminated clothing before re-use
Small spills:	Stop leak without risk. Contain spill and absorb with compatible absorbent material and shovel with a clean, spark proof tool into a sealable container for disposal. Dispose of to licensed, approved waste disposal company.
Large spills:	In the event of a large spill contact emergency services and/or supplier for advice.

SECTION 7: HANDLING AND STORAGE	
Handling/storage precautions:	Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage and moisture. Isolate from any source of heat or ignition.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION	
Occupational exposure limits:	LD ₅₀ ^r oral-rat, 850mg/kg (rat) Acute Dermal LD ₅₀ ^r >2 g/kg (rabbit) Acute inhalation LD50, <20 mg/litre and >2 mg/litre of Inspired air for 1 hour (rat)
Engineering control measures:	Use local or general ventilation to maintain the concentration of dust in the working environment well below recommended OEL. Supply sufficient replacement air to make up for the air removed by exhaust system.
Personal Protection – respiratory:	Where inhalation exists, wear NIOSH / MSHA respirator approved for chloride dust. Follow OSHA regulations for respirator use (See 29 CFR 1910.134). Personal protection – hand: Wear PVC/rubber gloves.
Personal protection – eye:	Chemical safety goggles and a face shield may be required.
Personal protection – skin:	Wear acid proof overalls or protective clothing where skin contamination is likely.
Other protection:	Safety showers and eye wash fountains must be available in the immediate working area.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES	
Appearance:	White caplets in a white plastic jacket.
Odor:	Chlorine-like odor
pH:	1% aqueous solution 10.6 – 11.5
Exposure properties:	None known
Oxidizing properties:	Strong oxidizer
Density:	2.35 @ 20 degrees
Solubility – water:	Soluble in water, reacts and releases chlorine gas
Solubility – solvent:	Soluble in some solvent types.
Solubility – coefficient:	N/A
SECTION 10: STABILITY AND REACTIVITY	
Conditions to avoid:	When heated to 177°C it decomposes rapidly with evolution of oxygen, heat and chlorine.
Incompatible materials:	Calcium hypochlorite is a strong oxidizer. Reacts with water and acids giving off chlorine gas. Forms explosive compound with ammonia and amines. Incompatible with organic materials, nitrogen compounds and combustible materials.
Hazardous decomposition product:	Products of combustion is chlorine.
SECTION 11: TOXICOLOGICAL INFORMATION	
Acute toxicity:	No significant effects or critical hazards.
Skin and eye contact:	May cause irritation to the skin or eyes.

Chronic toxicity:	No significant effects or critical hazardous.
Carcinogenicity:	None.
Mutagenicity:	None.
Neurotoxicity:	None currently known.
Reproductive hazard:	None.

SECTION 12: ECOLOGICAL INFORMATION

Aquatic toxicity – fish:	Discharge of large quantities into the aquatic environment will kill fish and other aquatic organisms.
Aquatic toxicity – daphnia:	Discharge of large quantities into the aquatic environment will kill fish and other aquatic organisms.
Aquatic toxicity – algae:	Discharge of large quantities into the aquatic environment will kill fish and other aquatic organisms.
Biodegradable:	Readily biodegradable, 28day testing period.
Bio-accumulation:	Not expected to accumulate.
Mobility:	Not known.
German wvk:	Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal method:	Dispose of contaminated product and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate local regulatory agencies to ascertain proper disposal procedures.
Disposal of packaging:	Where possible wash and recycle or dispose at approved landfill sites.

SECTION 14: TRANSPORT INFORMATION

Domestic (Land, D.O.T)

Proper Shipping Name:	Calcium Hypochlorite Dry
Hazard Class:	5.1
UN/NA:	UN1748
Packing Group:	II

International (Water, I.M.O)

Proper Shipping Name:	Calcium Hypochlorite Dry
Hazard Class:	5.1
UN/NA:	UN1748
Packing Group:	II

International (Air, I.C.A.O)

Proper Shipping Name:	Calcium Hypochlorite
Hazard Class:	5.1
UN/NA:	UN1748
Packing Group:	II

SECTION 15: REGULATORY INFORMATION

Chemical Inventory Status

Ingredient	TCSA	C	Japan	Australia	
Calcium Hypochlorite	Yes	Yes	Yes	Yes	
	Canada	Korea	DSL	NDSL	
	Yes	Yes	Yes	Yes	

Federal, State & International Regulations

RQ	TPQ	LIST	Chem.Catg.	CERCLA	261.33	TSCA 8(d)	
No	No	No	No	10	No	No	
Chemical Weapons Convention: No		TSCA 12(b): No		CDTA: No			
SARA 311/312: Acute: Yes	Chronic: Yes	Fire: Yes	Pressure: No				
Reactivity: Yes (Pure/Solid)							

SECTION 16: OTHER INFORMATION

NFPA Rating:	Health: 3	Flammability: 0	Reactivity: 1	Other: Oxidizer
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Label Hazard Warning:

DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. CORROSIVE. CAUSES BURNS TO ANY AREA OF CONTACT. HARMFUL IF SWALLOWED OR INHALED. WATER REACTIVE.

Label Precautions:

- Keep from contact with clothing and other combustible materials.
- Store in a tightly closed container.
- Remove and wash contaminated clothing promptly.
- Do not store near combustible materials.
- Do not get in eyes, or on clothing.
- Do not breathe dust or vapor.
- Keep container closed.
- Use only the adequate ventilation.
- Wash thoroughly after handling.
- Do not get in contact with water.

Label First Aid:

If swallowed, DO NOT INDUCE VOMITTING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. In all cases get medical attention immediately.

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