



PMC WATER SYSTEMS SERVICES INC.

124 CONNIE CRES. UNIT 9 CONCORD, ONTARIO.

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MATERIAL SAFETY DATA SHEET

C-3612

Protection Required



SECTION 1 - MATERIAL IDENTIFICATION AND USE

Manufacturer's Name : PMC Water Systems Services Inc.
Manufacturer's Address : 124 Connie Crescent, Unit 9, Concord, ON L4K 1L7
Manufacturer's Phone # : (905) 669-8262
24 Emergency Phone # : Canutec (613) 996-6666
Product Identifier : C-3612
Product Use : Chlorine based bleaching agents, sterilization

SECTION 2 – COMPOSITION/INGREDIENTS OF MATERIAL

Ingredients	Concentration	CAS #	LD ₅₀	LC ₅₀
Sodium Hydroxide	0.2 – 5%	1310-73-2	800 mL/kg (oral – rat)	Not Available
Sodium Hypochlorite	12-14%	7681-52-9	3-5g/kg (oral- rat)	No Data

SECTION 3 – HAZARDS IDENTIFICATION

Classification	DANGER. CAUSES EYE BURNS. CAUSES SKIN BURNS
Emergency Overview	Clear, yellow-green liquid. Chlorine odour. Danger. May develop chlorine gas if mixed with acidic solutions. Contact with acids, contamination or heating may cause the release of corrosive chlorine gas. May react with water generating heat. Contact with metals may release small amounts of flammable hydrogen gas. Corrosive material. Causes eye burns. Prolonged contact may produce chemical burns to affected skin areas. May cause severe irritation to the nose, throat and respiratory tract. May cause severe irritation to the mouth, throat and stomach.
Potential Health Effects	Signs and Symptoms of Short-Term (Acute) Exposure
Eyes	May cause chemical burns. May cause blindness.
Skin	May cause chemical burns. Direct skin contact may cause skin burns and deep ulcerations.
Inhalation	Inhalation of high concentrations of fumes or mists may cause severe irritation and corrosive damage to nose, throat and upper respiratory tract.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach. Symptoms may include abdominal pain, vomiting, burns, perforations and bleeding.
Chronic Effects	Prolonged or repeated contact may cause drying, cracking and defatting of the skin. Repeated inhalation may cause permanent lung damage.
Signs and Symptoms Potential	The product may cause burns to eyes, skin and mucous membranes.
Environmental Effect	Components of this product have been identified as having potential environmental concerns.

SECTION 4 – FIRST AID MEASURES

Eye Contact	Flush eyes thoroughly with running water for at least 20 minutes, holding eyelids open to ensure complete flushing. Remove contact lenses, if present, after the first five minutes then continue rinsing the eye. Seek immediate medical attention/advice.
Skin Contact	Immediately remove all contaminated clothing. Wash thoroughly with soap and water for at least 20 minutes. Obtain medical attention immediately. Discard or wash contaminated clothing before reuse.
Inhalation	Immediately remove victim to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration. Seek immediate medical attention/advice.
Ingestion	Call a poison control centre immediately. Do not induce vomiting. Rinse mouth with water and then drink one to two glasses of water. Never give anything by mouth to an unconscious or convulsing person. Do not give acidic antidotes such as juice, soft drinks, vinegar, etc. Seek immediate medical attention/advice.

SECTION 5 - FIRE FIGHTING MEASURES

Flammability	Stable. Not flammable under normal use conditions. May react with water generating heat. Generated heat may be sufficient to ignite nearby combustible materials. Product may react with some metals and release small amounts of flammable hydrogen gas.
Flash Point	Not Available
Autoignition	Not Available
Temperature	
Extinguishing Media	Treat with surrounding material. Do not use dry chemical extinguishing agents that contain ammonium compounds.
Special Firefighting Procedures/Equipment	Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe. Use water to cool fire exposed containers.
Explosion Data	Not expected to be sensitive to mechanical impact or static discharge.
Hazardous Combustion Products	May include and not limited to: chlorine, hydrogen chloride gas, oxygen, sodium oxides.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions	Restrict area until completion of clean up. Ensure cleanup is conducted by trained personnel only. Do not touch and walk through spilled material. All individuals dealing with clean up should wear appropriate protective equipment including self-contained breathing apparatus.
Environment Precautions:	Ensure spilled product does not enter drains, sewers, waterways or confined spaces. If necessary, dike ahead of the spill to prevent runoff into drains, sewers or any natural waterway or drinking supply.
Spill Response/Cleanup	Remove all sources of ignition. Ventilate area of release. Stop the spill at source if safe to do so. Contain and absorb spilled liquid with non combustible inert absorbent material (eg sand). Then place absorbent material into a container for later disposal (see section 13). Flush with water. Do not flush into surface water or sanitary sewer system. Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.
Prohibited Materials	Do not use combust absorbents such as sawdust.

SECTION 7 – HANDLING AND STORAGE

Handling	Wear chemically resistant protective equipment during handling. Use only in well ventilated areas. Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep away from heat, flame and incompatibles. Keep containers tightly closed when not in use. Empty containers retain residue (liquid and/or vapour) and can be dangerous.
Storage Requirements	Keep out of reach of children. Store in a cool, dry, well-ventilated area. Storage area should be clearly identified, free from obstruction and accessible only to trained and authorized personnel. Use polyethylene, polypropylene, FRP or PVC containers. Inspect periodically for damage or leaks. Protect from sunlight. Do not freeze. Store product at -10 to 30°C, away from sunlight or high temperatures. Keep from freezing. Always keep in containers made of the same materials as the supplier's container.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation	Use only in well ventilated areas. Use local exhaust if mist or spray is generated
Respiratory Protection	Respiratory protection is required if the concentrations exceed 2 mg/m ³ . NIOSH approved respirators are recommended. Seek advice from respiratory protection specialists.
Skin Protection	Impervious gloves
Eye/Face Protection	Chemical splash goggles; full face shield may be necessary
Other Comments	Chemical resistant clothing and boots. An eyewash station and safety shower should be available
General Hygiene	Avoid breathing vapor or mist. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke while using this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash thoroughly before reuse.

Exposure Limits	ACGIH TLV		OSHA	
Ingredients	TWA	STEL	PEL	STEL
Sodium Hydroxide	2 mg/m ³	N/D	2 mg/m ³	N/D
Sodium Hypochlorite	N/D	2 mg/m ³	N/D	N/D

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State	:	Liquid
Odour and Appearance	:	Chlorine; greenish-yellow solution
Odour Threshold	:	Not Available
Specific Gravity (Water = 1)	:	1.10 – 1.18
Vapour Pressure (mmHg)	:	22 @ 20°C
Vapour Density (Air = 1)	:	Not Available
Evaporation Rate	:	Not Available
Boiling Point	:	Decomposes upon heating
Freezing/Melting Point	:	-20°C, -4°F
pH	:	11.5-13.5
Coefficient Water/Oil Distribution	:	Not Available
Solubility in Water	:	Miscible / soluble

SECTION 10 – STABILITY AND REACTIVITY

Stability/Reactivity	Stable under recommended storage and handling conditions prescribed. Contact with some reactive metals may produce flammable hydrogen gas. Product may slowly decompose in sunlight generating small amounts of oxygen. Reacts with amines and ammonia compounds to form explosively unstable compounds. May develop chlorine if mixed with acidic solutions. Corrosive to metals.
Conditions for Chemical Instability	Heat, open flame and direct sunlight. Keep away from incompatibles. Keep container tightly closed when not in use.
Hazardous Decomposition Products	May include and not limited to: hydrogen chloride, chlorine gas, oxygen, disodium oxide.
Hazardous Polymerization	Not expected under prescribed storage and handling conditions.
Incompatible Materials	Acids, oxidizers, primary amines, ammonium salts, ammonia and urea.

SECTION 11 – TOXICOLOGICAL INFORMATION

Target Organs	:	Eyes, skin, respiratory and digestive system
Routes of Entry	:	Inhalation, skin and eye contact, ingestion
Effects of Acute Exposure		
Skin Contact	:	May cause chemical burns
Eye Contact	:	May cause chemical burns. May cause blindness.
Ingestion	:	Avoid swallowing. May cause chemical burns to mouth, throat and stomach. Symptoms may include abdominal pain, vomiting, burns, perforations and bleeding.
Inhalation	:	May cause chemical burns.
Chronic Exposure Effects	:	Non-hazardous by WHMIS criteria.
Irritancy	:	Corrosive
Sensitization	:	No data available to indicate product or components may be respiratory sensitizers. May cause allergic skin reaction (eg hives, rash) in some hypersensitive individuals.
Carcinogenicity	:	Non-hazardous by WHMIS criteria.
Teratogenicity	:	Non-hazardous by WHMIS criteria.
Mutagenicity	:	Non-hazardous by WHMIS criteria.
Reproductive Effects	:	Non-hazardous by WHMIS criteria.

SECTION 12 – ECOLOGICAL INFORMATION

General Comments	Harmful to aquatic life.
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SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal	Dispose in accordance with federal, provincial or local government requirements. Contact your local, provincial or federal environmental agency for specific regulations.
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SECTION 14 – TRANSPORT INFORMATION

TDG Shipping Regulations	UN 1791, Sodium Hypochlorite Solution, Class 8 (9.2), PG III
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SECTION 15 – REGULATORY INFORMATION

WHMIS Classification Domestic Substances List

Class E: Corrosive Material

All ingredients are listed on the DSL or are not required to be listed.

SECTION 16 – OTHER INFORMATION

Prepared by:

Lab Services
PMC Water Systems Services Inc.
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Concord, ON L4K 1L7

Preparation Date:

January 3, 2017

While all the data presented is believed to be accurate at the time of preparation, PMC Water Systems Services Inc. makes no warranty; the data is offered for your consideration, investigation and verification.