

CHLOR DISCS

2. Hazards identification

Medical conditions aggravated by over-exposure
Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.
See toxicological information (section 11)

3. Composition/information on ingredients

Name	CAS number	%
calcium hypochlorite	7778-54-3	60 - 100
calcium carbonate	471-34-1	1 - 5
calcium dihydroxide	1305-62-0	1 - 5
calcium chloride liquid	10043-52-4	1 - 5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

5. Fire-fighting measures

- Flammability of the product** : Strong oxidizing agent.
- Extinguishing media**
- Suitable** : Use flooding quantities of water. USE WATER ONLY
- Not suitable** : Do not use water jet Do not use dry chemical extinguishers containing ammonium compounds.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon monoxide
carbon dioxide
halogenated compounds
metal oxide/oxides
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

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7 Handling and storage

Handling : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage : Do not store above the following temperature: 52 °C (125.6°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8 Exposure controls/personal protection

Occupational exposure limits	TWA (8 hours)			STEL (15 mins)			Ceiling					
	Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	Notations
calcium chloride liquid calcium dihydroxide	US ACGIH	-	10	-	-	-	-	-	-	-	-	[a]
	US ACGIH 1/2009	-	5	-	-	-	-	-	-	-	-	[3]
	AB 4/2009	-	5	-	-	-	-	-	-	-	-	[3]
	BC 9/2009	-	5	-	-	-	-	-	-	-	-	
	ON 8/2008	-	5	-	-	-	-	-	-	-	-	
	CC 6/2008	-	5	-	-	-	-	-	-	-	-	
	AB 4/2009	-	10	-	-	-	-	-	-	-	-	[3]
	CC 6/2008	-	10	-	-	-	-	-	-	-	-	[b]

[3]Skin sensitization
Form: [a]Liquidified mist [b]Total dust.

Consult local authorities for acceptable exposure limits.

Recommended monitoring : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: disposable particulate mask

Hands : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. >8 hours (breakthrough time): Chemical-resistant, impervious gloves 1-4 hours (breakthrough time): Chemical-resistant, impervious gloves <1 hours (breakthrough time): Chemical-resistant, impervious gloves

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: safety glasses with side-shields

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Personal protective equipment :
(Pictograms)



9. Physical and chemical properties

Physical state : Solid [Solid beads, Granular solid, or Powder.] **Flash point :** Not available.

Color : White. **Auto-ignition temperature :** Not available.

Odor : LIKE BLEACHING POWDER [Strong] **Flammable limits :** Not available.

Relative density : 2.35 **Burning time :** Not available.

pH : 10.4 [Conc. (% w/w): 1%] **Burning rate :** Not available.

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9 Physical and chemical properties

Molecular weight : Not applicable. **Boiling/condensation point** : Not available.
 Molecular formula : Not applicable. **Melting/freezing point** : 100 °C (212 °F)
 Viscosity : Not available. **Critical temperature** : Not available.
 Ionlicity (in water) : Not available. **Vapor pressure** : Not available.
 Evaporation rate : Not available. **Vapor density** : Not available.
 Odor threshold : 1.4 ppm **Volatility** : Not available.
Solubility : Partially soluble in the following materials: cold water and hot water.
Dispersibility properties : Not dispersible in the following materials: cold water and hot water.

10 Stability and reactivity

Chemical stability : The product is stable.
Conditions to avoid : No specific data.
Materials to avoid : No specific data.
 Reactive or incompatible with the following materials: oxidizing materials, reducing materials, combustible materials, organic materials and acids.
 This product is chemically reactive with many substances, including, other pool treatment products, acids, organics, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, corrosive, flammable or combustible materials.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

11 Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
calcium hypochlorite	LD50 Oral	Rat	850 mg/kg	-
calcium chloride liquid	LD50 Oral	Mouse	1940 mg/kg	-
calcium dihydroxide	LD50 Oral	Rat	1000 mg/kg	-
calcium carbonate	LD50 Oral	Rat	7340 mg/kg	-
	LD50 Oral	Rat	7340 mg/kg	-
	LD50 Oral	Rat	6450 mg/kg	-

Carcinogenicity Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
calcium hypochlorite	-	3	-	-	-	-

12 Ecological information

Ecotoxicity : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Exposure	Species
calcium hypochlorite	-	Acute EC50 0.073 ppm Fresh water	48 hours	Daphnia - Water flea - Daphnia magna - LARVAE
calcium dihydroxide	-	Acute LC50 <50 ug/L Marine water	48 hours	Crustaceans - Calanoid copepod - Acartia tonsa
calcium carbonate	-	Acute LC50 33884.4 ug/L Fresh water	96 hours	Fish - Rainbow smelt - Osmerus mordax - FRY
	-	Acute LC50 56 mg/L Marine water	96 hours	Fish - Zambesi barb - Ciaras gariepinus - Fingerling
	-	Chronic NOEC 56 mg/L Marine water	96 hours	Fish - Guppy - Poecilia reticulata - Young - 3 weeks
	-	Acute LC50 >56000000 ug/L Fresh water	96 hours	Fish - Western mosquitofish - Gambusia affinis - Adult
CHLOR GRAN	-	Acute EC50 0.073 ppm Fresh water	48 hours	Daphnia - Water flea - Daphnia magna - LARVAE
	-	Acute LC50 <50 ug/L Marine water	48 hours	Crustaceans - Calanoid copepod - Acartia tonsa

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Acute LC50 0.11 mg/L	48 hours	Acartia tonsa
Acute LC50 23 ug/L Fresh water	96 hours	Daphnia - Daphnia magna
Acute LC50 0.16 mg/L	96 hours	Fish - Rainbow smelt - Osmerus mordax - FRY
		Fish - Trout

Toxicity of the products of biodegradation : The products of degradation are more toxic than the product itself.

13 Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Waste stream : Not available.
Disposal should be in accordance with applicable regional, national and local laws and regulations.
Refer to **Section 7: HANDLING AND STORAGE** and **Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION** for additional handling information and protection of employees.

14 Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	1748	UN1748 CALCIUM HYPOCHLORITE DRY MIXTURE	5.1	II		Reportable quantity 10 lbs. (4.54 kg)
TDG Classification	1748	UN1748 CALCIUM HYPOCHLORITE DRY MIXTURE	5.1	II		

PG* : Packing group

15 Regulatory information

United States Inventory (TSCA 8b) : All components are listed or exempted.
WHMIS (Canada) : Not controlled under WHMIS (Canada).
Canadian lists : CEPA Toxic substances: None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NIPRI: None of the components are listed.
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.

Canada Inventory

: All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

16 Other information on the product

Label requirements : CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

References : - Manufacturer's Material Safety Data Sheet.

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Note: MSDS are valid for a 3 years period after the date of issue **G6P 7E3**
819-758-1541

Indicates information that has changed from previously issued version.
Notice to reader

16 Other information on the product

There are potential hazards to people and goods associated with the use of this product which are detailed in the present Material Safety Data Sheet (MSDS). To minimize potential hazards associated with this product it is of users responsibility to conform the directions for use and all other instructions provided in the Material Safety Data Sheet (MSDS) of this product. The manufacturer, distributors and suppliers of this product are exonerating themselves and consequently shall not be liable for any prejudice or damage of any kind, resulting from the use of this product which may not be in accordance with the directions for use or all the instructions provided in the present Material Safety Data Sheet (MSDS) or resulting from an unadvised use of the present product..

Emergency phone: CANUTEC (613) 996-6666 (Collect calls accepted)