


Material Safety Data Sheet

Section 1. Chemical Product and Company Identification		
Product Name:	Sodium Hypochlorite 12 %	Version: 5 Effective Date: June 24, 2014
Supplier/ Manufacturer:	Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055	
Material Uses	Sanitiser, bleaching agent	
24 Hour Emergency	Canutec (613) 996-6666	
WHMIS		
		
This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR		
HMIS Ratings for this product are: Health 3 , Flammability 0 , Reactivity 2		

Section 2. Composition and Information on Ingredients		
Name	CAS#	% by weight
Sodium hypochlorite	7681-52-9	10 - 20
See Section 8 for information on permissible exposure limits and threshold limit values		

Section 3. Hazards Identification	
Physical State and Appearance	Clear, colourless liquid with chlorine odour
Hazard Summary	Corrosive
Routes of Exposure	Skin and eye contact, inhalation, ingestion
Potential Acute Health Effects	<p>Skin: Corrosive. May cause severe skin irritation. Prolonged contact may lead to burns and blisters. May cause whitening or bleaching of the skin.</p> <p>Eyes: Corrosive. May cause severe damage resulting in blindness</p> <p>Inhalation: Corrosive to the respiratory tract. Causes irritation to</p>

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	<p>the mouth, nose and throat. Repeated and prolonged exposure may cause cough, running nose, bronchopneumonia, pulmonary oedema (fluid in the lungs) and reduction of lung function. Mixing with acids or at elevated temperatures, sodium hypochlorite releases chlorine gas. Chlorine gas causes severe irritation of the nose and throat, exposure to high levels of chlorine gas may result in severe ling damage.</p> <p>Ingestion: Corrosive. Causes burns to the mouth, throat and stomach. Causes vomiting, nausea and diarrhea. Coma, shock and death may occur.</p>
Medical Conditions Aggravated by Exposure	Dermatitis and respiratory conditions such as asthma
See Toxicological Information – Section 11	
Additional Hazard	None
Identification Remarks	

Section 4. First Aid Measures	
Eye Contact	Flush eyes with water for 30 minutes until no chemical remains. Seek immediate medical attention.
Skin Contact	Flush area with water. If irritation persists seek medical attention. Launder clothing before reuse.
Inhalation	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
Ingestion	Rinse mouth with water. Do not induce vomiting. Lay victim on left side to prevent aspiration of any vomit. Seek immediate medical attention.
Notes to Physician	Due to the severely irritating or corrosive nature of the material, swallowing may lead to ulceration and inflammation of the upper alimentary tract with haemorrhage and fluid loss. Also perforation of the oesophagus or stomach may occur, leading to mediastinitis or peritonitis and resultant complications
Additional First Aid Remarks	None

Section 5. Fire Fighting Measures	
Flammability of the Product	Non flammable
Flash Point	Not applicable
Explosive Limits	Not applicable
Auto Ignition Temperature	Not applicable
Static Discharge	No

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Suitable Extinguishing Media	Use extinguishing media suitable for the surrounding fire
Hazardous Combustion Products	Chlorine, oxygen and oxides of sodium
Precautions for Fire Fighting	Fire fighters should wear self contained breathing apparatus and full protective clothing. Use water spray to cool containers and structures exposed to fire.

Section 6. Accidental Release Measures	
Personal Precautions	Chemical resistant (rubber, neoprene) gloves, coveralls, footwear and safety glasses
Environmental Precautions	Do not allow material to enter surface drains and water courses
Methods for Clean Up	Ventilate area, dike large spills, pump up and place in containers for disposal. Soak up residues or small spills and scoop into containers. Flush area with water to remove residues which may leave a slippery film.

Section 7. Handling and Storage	
Handling	Handle with care. Keep containers closed when not in use. Empty containers may contain hazardous residues. Never add water to this product, when diluting add small amounts of product to water to avoid splattering.
Storage	Store in a cool dry place, away from direct sunlight. Store below 29 °C. Product segregation should be practiced.

Section 8. Exposure Controls and Personal Protection			
Exposure Guidelines	TWA: 8 Hr	STEL: 15 min	Ceiling
Sodium hypochlorite	0.5 ppm as for chlorine		
Exposure Controls	Local exhaust ventilation		
Personal Protection			
Respiratory	Air purifying respirator fitted with appropriate cartridges		
Skin	Chemical resistant (neoprene) gloves, coveralls and footwear		
Eyes	Safety glasses		
Other	None		

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Section 9. Physical and Chemical Properties	
Physical State and Appearance	Clear green to yellow liquid with strong chlorine odour
Odour Threshold	No data
pH	12 – 13
Boiling Point	Decomposes at 40 °C
Melting Point / Freezing point	-25 °C
Evaporation Rate	No data
Vapour Density	No data
Vapour Pressure	12.1 mm Hg @ 20 °C
Specific Gravity	1.21
Solubility in Water	Completely soluble
% Volatile	No data
Other Data	None

Section 10. Stability and Reactivity	
Chemical Stability	Unstable above 40 °C
Hazardous Polymerisation	Will not occur
Conditions to Avoid	High temperatures. Exposure to light.
Materials to Avoid	Acids. Ammonia. Strong oxidisers. Reducing agents. metals
Hazardous Decomposition Products	When heated to decomposition it emits acrid smoke, irritating fumes, chlorine, oxygen and oxides of sodium. Hypochlorites may react with primary amines to form nitrogen trichloride which explodes spontaneously in air. Hypochlorite bleach reacts with urea to form nitrogen trichloride which explodes spontaneously in air. Some metals accelerate the decomposition of Sodium hypochlorite – ie nickel, copper, tin, iron and its alloys, manganese.

Section 11. Toxicological Information	
Principle Routes of Exposure	
Skin:	Corrosive. May cause severe skin irritation. Prolonged contact may lead to burns and blisters. May cause whitening or bleaching of the skin.
Eyes:	Corrosive. May cause severe damage resulting in blindness
Inhalation:	Corrosive to the respiratory tract. Causes irritation to the mouth, nose and throat. Repeated and prolonged exposure may cause cough, running nose, bronchopneumonia, pulmonary oedema (fluid in the lungs) and reduction of lung function. Mixing with acids or at elevated temperatures, sodium hypochlorite releases chlorine gas. Chlorine gas causes severe irritation of the nose and throat, exposure to high levels of chlorine gas may result in severe lung damage.

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Ingestion:	Corrosive. Causes burns to the mouth, throat and stomach. Causes vomiting, nausea and diarrhea. Coma, shock and death may occur.
Additional Information	
Acute Toxicity	
Sodium hypochlorite	LD50: 8200 mg/kg (Rat, oral) LD50: 10000 mg/kg (Rabbit, dermal)
Chronic Toxic Effects – May cause lung damage	
Carcinogenicity – IARC – Group 3 (sodium hypochlorite solution)	
Reproductive Toxicity / Teratogenicity / Embryotoxicity / Mutagenicity – None known	

Section 12. Ecological Information	
Ecotoxicity	Sodium hypochlorite LC50: 0.22 – 0.62 mg/L (Pimephales promelas) EC50: 0.095 mg/L (Skeletonema costatum)
BOD and COD	No data
Biodegradability / OECD	No data
Toxicity of the Products of Biodegradation	No data
Special Remarks	Harmful to aquatic life at low concentrations. Toxicity is primarily associated with pH

Section 13. Disposal Considerations	
Dispose of in accordance with local, provincial and federal regulations	

Section 14. Transport Information	
TDG Classification	Hypochlorite solution, UN 1791, Class 8, Packing Group III
Emergency Response Guide #	ERG# 154
Marine Pollutant	No
Special Precautions	None

Section 15. Regulatory Information	
Canada – DSL Inventory	All components of this product are either on the Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL) or exempt
TSCA	All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt
WHMIS Hazard Class	E
Additional Information	None

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Section 16. Other Information**Prepared by:**

Chemfax Products Ltd., Technical Department

Date Prepared: January 13, 2012**Revision Date:** June 24, 2014**Disclaimer**

Notice to reader

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