

PRODUCT: SODIUM HYPOCHLORITE 12%

SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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PRODUCT NAME: Sodium Hypochlorite 12%

CHEMICAL FORMULA: NaOCl

CHEMICAL FAMILY: Chlorite.

MATERIAL USE: Water Purification, Bleaching Agent and Disinfectant.

EMERGENCY PHONE NUMBER: (613)-996-6666

SECTION 02: HAZARDS IDENTIFICATION

SIGNAL WORD: DANGER.

HAZARD CLASSIFICATION: Serious Eye Damage - Category 1.
Skin Corrosion - Category 1.
Specific Target Organ Toxicity (STOT) - Single Exposure - Category 3.
Respiratory Tract Irritation - Category 3.

HAZARD STATEMENT: **H290:** may be corrosive to metals.
H314: causes severe skin burns and eye damage.
H335: may cause respiratory irritation.

PRECAUTIONARY STATEMENT: **P234:** keep only in original container.
P260: do not breathe dust/fume/gas/mist/vapours/spray.
P264: wash thoroughly after handling.
P280: wear protective gloves/protective clothing/eye protection/face protection.
P271: use only outdoors or in a well-ventilated area.
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P305+P351+P338: IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353: IF ON SKIN (or hair): remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340: IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310: immediately call a POISON CENTER or doctor/physician.
P321: specific treatment (see on this label).
P363: wash contaminated clothing before reuse.
P390: absorb spillage to prevent material damage.
P405: store locked up.
P406: store in corrosive resistant/container with a resistant inner liner.
P501: dispose of contents/container according to all applicable regulations.

OTHER HAZARDS Very toxic to aquatic life with long lasting effects.

SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT(S)	CAS #	WT. %
Sodium Hypochlorite	7681-52-9	10-15
Sodium Hydroxide	1310-73-2	0.5-1.5

Definitions:

CAS - Chemical Abstract Service registry number.

WT. % - Percent Weight.

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SECTION 04: FIRST AID MEASURES

BY ROUTE OF ENTRY: Inhalation: move victim to fresh air. Give artificial respiration only if breathing has stopped. Obtain medical attention immediately. Skin contact: remove contaminated clothing and wash before reuse. Flush affected area with water for at least 20 minutes. Obtain medical attention. Eye contact: flush eyes immediately with running water for at least 30 minutes holding eyelids open. Obtain medical attention immediately. Ingestion: do not induce vomiting or give anything by mouth to an unconscious person. Rinse out mouth with water. Obtain immediate medical attention.

SECTION 05: FIRE FIGHTING MEASURES

FLAMMABILITY: Not Flammable.

SUITABLE EXTINGUISHING MEDIA: Use appropriate media to extinguish surrounding fire. Use water spray, alcohol-resistant foam. Dry chemical or carbon dioxide.

HAZARDOUS COMBUSTION PRODUCTS: May include and are not limited to: chlorine, hydrogen chloride gas, oxygen, sodium dioxides.

EXPLOSION DATA:

EXPLOSIVE POWER No Data.

RATE OF BURNING No Data.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Not Available

SPECIAL PROCEDURES: Full protective equipment, including a self-contained breathing apparatus, should be worn. Remove storage vessels from fire zone if possible. Use after spray to cool containers to avoid pressure build-up.

SECTION 06: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Steps to be taken in the event of a spill or leak: ventilate the area. Stop and contain leak or spill. Absorb using an inert material (sand, ashes, etc.), collect and dispose. For recovery, pump into polyethylene containers.

SECTION 07: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: See Section 8 for recommended personal protective equipment. Protect containers against physical damage.

CONDITIONS FOR SAFE STORAGE: Storage temperature: below 30°C and above freezing point. Store in a cool (below 30°C) dry, well-ventilated area away from incompatibles and direct sunlight. Do not store near acids. Long-term storage is impossible without decomposition. Use polyethylene containers.

SECTION 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT(S)	ACGIH TLV		OSHA PEL		NIOSH REL
	TWA	STEL	PEL	STEL	
Sodium Hypochlorite	Not Established	Ceiling: 2 mg/m ³	2 mg/m ³	Not Established	-
Sodium Hydroxide	Not Established	2 mg/m ³	2 mg/m ³	Not Established	-

Definitions:

ACGIH - American Conference of Governmental Industrial Hygienists.
 NIOSH - National Institute for Occupational Safety and Health.
 OSHA - Occupational Safety and Health Administration.
 PEL - Permissible Exposure Limit.

RELs - Recommended Exposure Limits.
 STEL - Short-term Exposure Limit.
 TLV - Threshold Limit Value.
 TWA - Time Weighted Average.

SECTION 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMIT OF MATERIAL: ACGIH - TLV: 0.5 ppm, (as chlorine).

ENGINEERING CONTROLS: Local Exhaust Ventilation.

SKIN AND BODY PROTECTION: Use rubber gloves. Gloves must be inspected prior to use.

RESPIRATORY PROTECTION: NIOSH/MSHA approved air-purifying respirator equipped with chlorine cartridges when necessary.

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SECTION 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE/FACE PROTECTION:	Use chemical safety goggles when there is a potential for eye contact.
FOOTWEAR/TYPE:	Rubber boots if necessary.
CLOTHING/TYPE:	Rubber apron.
OTHER/TYPE:	Safety showers and eyewash fountains should be installed in storage and handling areas.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Clear, Yellow To Greenish Liquid. Translucent.
ODOUR:	Strong Chlorine Odour.
ODOUR THRESHOLD:	No Data.
pH:	> 12.5.
FREEZING POINT / MELTING POINT:	-30 To -20°C.
BOILING POINT:	96 To 120°C.
FLASH POINT, METHOD:	Non-Flammable.
EVAPORATION RATE:	No Data.
FLAMMABILITY (SOLIDS AND GASES):	Not Applicable.
UPPER FLAMMABLE LIMIT (% BY VOL):	Not Applicable.
LOWER FLAMMABLE LIMIT (% BY VOL):	Not Applicable.
VAPOUR PRESSURE:	17.5 mmHg At 20°C.
VAPOUR DENSITY (AIR=1):	No Data.
SPECIFIC GRAVITY (WATER=1):	Approximately 1.165 g/mL for a 12%; 1.26 g/mL for a 20%.
SOLUBILITY IN WATER (% W/W):	Miscible in all proportion in water.
COEFFICIENT OF WATER/OIL DIST:	No Data Available.
AUTO IGNITION TEMPERATURE:	Not Available.
DECOMPOSITION TEMPERATURE:	No Data Available
VISCOSITY:	No Data Available

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Not Stable: Under fire conditions. Unstable above 40°C, when exposed to sunlight or in contact with metals.
REACTIVITY:	Temperatures above 40°C.
REACTIVITY CONDITIONS:	Acids, ammonia, oxidizable materials, urea, nickel, copper, tin, manganese, iron, most metals.
POSSIBILITY OF HAZARDOUS REACTIONS:	See Reactivity.
SENSITIVITY TO STATIC DISCHARGE:	No Data.
SENSITIVITY TO IMPACT:	No Data.
HAZARDOUS DECOMPOSITION PRODUCTS:	May include and are not limited to: hydrogen chloride, chlorine gas, sodium dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENT(S)	LC50	LD50
Sodium Hypochlorite	Inhalation:>10.5 mg/kg (rat)	Oral:8200 mg/kg (Rat); Oral:5800 mg/kg (Mice)
Sodium Hydroxide	-	Oral:2400 mg/kg (Rat); Dermal:>2000 mg/kg (<i>Leporidae</i> sp.) (Rabbit)

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SECTION 11: TOXICOLOGICAL INFORMATION

LC50 OF MATERIAL, SPECIES & ROUTE:	LC50 (Inhalation, Rat): >10.5 mg/kg.
LD50 OF MATERIAL, SPECIES & ROUTE:	LD50 (Oral, Rat): 8200 mg/kg; (Oral Mice): 5800 mg/kg.
ROUTE OF ENTRY:	
Inhalation:	Corrosive. May cause irritation of the nose and upper respiratory tract, headache and coughing.
Ingestion:	Corrosive. Burning in mouth and throat. Severe pain, vomiting, diarrhea.
Skin Corrosion / Irritation:	Corrosive. Can cause severe local irritation, burns and blisters. Prolonged or repeated contact with diluted solutions may bleach skin or cause dermatitis.
Skin Absorption:	Not Available
SERIOUS EYE DAMAGE / EYE IRRITATION:	Very corrosive!. Can cause irritation and severe damages resulting in blindness.
IRRITANCY OF MATERIAL:	See Section 4.
EFFECTS OF ACUTE EXPOSURE:	See Above.
SYNERGISTIC MATERIALS:	None Known.
EFFECTS OF CHRONIC EXPOSURE:	Not Available.
CARCINOGENICITY:	The ingredients of this product are not listed as carcinogens.
REPRODUCTIVE TOXICITY:	No Information Is Available.
SENSITIZING CAPABILITY OF MATERIAL:	No Information Is Available.
TERATOGENICITY:	No Information Is Available.

SECTION 12: ECOLOGICAL INFORMATION

ACUTE ECOTOXICITY:	96hrs LC50 <i>Oncorhynchus mykiss</i> (Rainbow trout): 0.030-0.070 mg/L (sodium hypochlorite) 48hrs LC50 <i>daphnia magna</i> (Water Flea): 0.032-0.036 mg/L (sodium hypochlorite) 96hrs LC50 <i>poecilia reticulata</i> (fish/guppy): 196 mg/L (sodium hydroxide).
OTHER ADVERSE EFFECTS:	Very toxic to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:	Dispose of in accordance with all applicable federal, provincial, and local environmental regulations.
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SECTION 14: TRANSPORT INFORMATION

Transportation of Dangerous Goods (TDG):	Regulated.
UNITED NATIONS (UN) NUMBER:	1791
TRANSPORT HAZARD CLASS:	8
PACKING GROUP:	III
PROPER SHIPPING NAME:	HYPOCHLORITE SOLUTION.
SPECIAL SHIPPING INSTRUCTIONS:	Not Applicable

SECTION 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION	D2A. E.
HAZARDOUS PRODUCTS REGULATIONS (HPR) COMPLIANCE:	This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.
NSF CERTIFICATION:	Product is certified under NSF/ANSI Standard 60 for disinfection and oxidation at a maximum dosage for the following:

PRODUCT: SODIUM HYPOCHLORITE 12%**SECTION 15: REGULATORY INFORMATION**

Sodium Hypochlorite 5%: 248mg/L	Sodium Hypochlorite 11%: 112mg/L	Sodium Hypochlorite 17%: 72mg/L
Sodium Hypochlorite 6%: 206mg/L	Sodium Hypochlorite 12%: 103mg/L	Sodium Hypochlorite 18%: 68mg/L
Sodium Hypochlorite 7%: 177mg/L	Sodium Hypochlorite 13%: 95mg/L	Sodium Hypochlorite 19%: 65mg/L
Sodium Hypochlorite 8%: 155mg/L	Sodium Hypochlorite 14%: 88mg/L	Sodium Hypochlorite 20%: 62mg/L
Sodium Hypochlorite 9%: 137mg/L	Sodium Hypochlorite 15%: 82mg/L	
Sodium Hypochlorite 10%: 124mg/L	Sodium Hypochlorite 16%: 77mg/L	

SANITIZER USE:

to obtain 10 liters of a 200 mg/L solution as available chlorine, use 16.7 mL of Hypochlor-12 for each 10 liters of clean, potable water. NSF product use restrictions based on requirements obtained from the NSF website for current requirements.

SECTION 16: OTHER INFORMATION

PREPARED BY:	T. Donovan & Son (1997) Ltd.
PREPARATION DATE:	May 2018

DISCLAIMER:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. Regulatory requirements are subject to change and may differ between various locations. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.