

Sodium Hypochlorite 5% - 20% (by weight)

SECTION 1. IDENTIFICATION

Product Identifier	Sodium Hypochlorite 5% - 20% (by weight)
Other Means of Identification	Sodium Oxychloride, Bleach
Product Code(s)	SO3780, SO3782, SO3783, SO3784
Product Family	Chlorite
Recommended Use	Industrial.
Restrictions on Use	None known.
Supplier Identifier	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
Emergency Phone No.	CANUTEC CANADA, 613-996-6666, 24 Hours CHEMTREC, 800-424-9300, 24 Hours
SDS No.	0108

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

Classification

Corrosive to metals - Category 1; Skin corrosion - Category 1

Label Elements



Signal Word:
Danger

Hazard Statement(s):

Causes severe skin burns and eye damage.
May cause respiratory irritation.

Precautionary Statement(s):

Wash hands and skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust/fume/gas/mist/vapours/spray.
Use only outdoors or in a well-ventilated area.

Other Hazards

Contact with acids liberates toxic gas.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Water	7732-18-5	80 - 95	Dihydrogen Oxide
Sodium hypochlorite solutions	7681-52-9	5 - 20	Sodium Oxychloride, Bleach

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Avoid mouth-to-mouth contact by using a barrier device.

Skin Contact

Immediately rinse skin with lukewarm, gently flowing water for at least 30 minutes. Immediately call a Poison Centre or doctor. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face.

Ingestion

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water.

First-aid Comments

Some of the first-aid procedures recommended here require advanced first-aid training. If exposed or concerned, get medical advice or attention.

Most Important Symptoms and Effects, Acute and Delayed

If on skin: contact can cause pain, redness, burns, and blistering. Permanent scarring can result. If in eyes: contact causes severe burns with redness, swelling, pain and blurred vision. Permanent damage including blindness can result.

Immediate Medical Attention and Special Treatment

Special Instructions

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

DO NOT use dry chemical fire extinguishing agents containing ammonium compounds (such as some A:B:C agents).

Specific Hazards Arising from the Product

Does not burn. Closed containers may rupture violently when heated releasing contents.

In a fire, the following hazardous materials may be generated: corrosive chlorine; corrosive hydrogen chloride.

Special Protective Equipment and Precautions for Fire-fighters

Evacuate area. Fight fire from a protected, explosion-resistant location or maximum distance possible. Approach fire from upwind to avoid hazardous vapours or gases. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles. Fight fire remotely due to the risk of explosion.

Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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Personal Precautions, Protective Equipment, and Emergency Procedures

Emergency responders: use the personal protective equipment recommended in Section 8 of this safety data sheet. Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway. It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: contact emergency services and manufacturer/supplier for advice.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Only use where there is adequate ventilation. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). Keep only in original packaging. Prevent accidental contact with incompatible chemicals. Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs.

Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated. Protect from sunlight. Separate from incompatible materials (see Section 10: Stability and Reactivity). Keep amount in storage to a minimum. Store in the original, labelled, shipping container. Regularly inspect for physical changes or signs of crystallization, damage or leaks. Have escape-type respiratory protective equipment readily available, in case of leaks or spills. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Sodium hypochlorite solutions	Not established		Not established			
Water	Not established		Not established			

Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Exhaust directly to the outside, taking any necessary precautions for environmental protection. Use a corrosion-resistant exhaust ventilation system separate from other ventilation systems.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: butyl rubber, natural rubber, neoprene rubber, nitrile rubber, polyethylene, polyvinyl chloride, Viton®, Silver Shield/4H® (PE/EVAL/PE), Tychem® TK, Tychem® SL (Saranex™).

Respiratory Protection

No specific guidelines are available. Contact chemical manufacturer/supplier for advice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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Basic Physical and Chemical Properties

Appearance	Green - yellow liquid.
Odour	Pungent
Odour Threshold	Not available
pH	~ 10.8 (10% solution)
Melting Point/Freezing Point	-20 °C (-4 °F) (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	Not applicable
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	~ 1.1 (estimated) (Sodium hypochlorite solutions)
Solubility	Soluble in all proportions in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	-3.42
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not available (dynamic)
Other Information	
Physical State	Liquid
Other Physical Property 1	Boiling Point - Decomposes on heating

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

Decomposes in the presence of light, acidic conditions (low pH), alkaline conditions (high pH), increased temperature.

Conditions to Avoid

High temperatures. Heat. Light. Sunlight. Incompatible materials. Acidic conditions (low pH). Alkaline conditions (high pH). Contamination.

Incompatible Materials

Amines (e.g. triethylamine), ammonia, alcohols (e.g. ethanol), aldehydes (e.g. acetaldehyde), reducing agents (e.g. hydroquinone), strong bases (e.g. sodium hydroxide), strong acids (e.g. hydrochloric acid), inorganic acids (e.g. hydrofluoric acid), organic acids (e.g. acetic acid).

Hazardous Decomposition Products

Corrosive chlorine.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

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Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Sodium hypochlorite solutions	> 5250 mg/m ³ (rat) (4-hour exposure)	~ 7540 mg/kg (female rat)	> 10000 mg/kg (rabbit)
Water	Not available	> 89840 mg/kg (rat)	Not available

Skin Corrosion/Irritation

Animal tests show moderate or severe irritation.

Serious Eye Damage/Irritation

Causes serious eye irritation based on skin irritation information.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

No information was located.

Skin Absorption

No information was located.

Ingestion

Serious stomach damage may result. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Liver function tests may show abnormal results.

Respiratory and/or Skin Sensitization

No information was located.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Sodium hypochlorite solutions	Group 3	Not Listed	Not Listed	Not Listed
Water	Not Listed	Not Listed	Not Listed	Not Listed

IARC: Group 3 – Not classifiable as to its carcinogenicity to humans.

Reproductive Toxicity

Development of Offspring

Conclusions cannot be drawn from the limited studies available.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

No information was located.

Conclusions cannot be drawn from the limited studies available.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

SECTION 13. DISPOSAL CONSIDERATIONS

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Disposal Methods

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction. Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN1791	Hypochlorite Solutions	8	III
US DOT	UN1791	Hypchlorite Solutions	8	III

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

SECTION 16. OTHER INFORMATION

NFPA Rating Health - 2 Flammability - 0 Instability - 2

SDS Prepared By Alphachem Limited

Phone No. (905)-821-2995

Date of Preparation September 03, 2015

Date of Last Revision April 15, 2016

References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

Disclaimer This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.