Safety Data Sheet

Section 01 - Identification

Product Identifier	Sodium Chlorite 80K Powder
Other Means of Identification	None.
Product Use and Restrictions on Use	Bleaching and oxidizing agent for cellulosic and synthetic fibres; generation of chlorine dioxide.
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
Prepared By	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
24-Hour Emergency Phone	Phone: 1 (306) 664 – 2522

Section 02 - Hazard Identification

GHS-Classification

Acute Toxicity-Oral	Category 3
Acute Toxicity-Dermal	Category 2
Skin Corrosion/Irritation	Category 1B
STOT-Repeated Exposure	Category 2

Physical Hazards

Oxidizing Solid	Category 1

Danger

Hazards Statements

H301 – Toxic if swallowed.
H310 – Fatal in contact with skin.
H314 – Causes severe skin burns and eye damage.
H373 – May cause damage to the spleen through prolonged or repeated exposure.
H271 – May cause fire or explosion; strong oxidizer.

Pictograms

Precautionary Statements
P405 – Store locked up.
P420 – Store away from other materials.
P210 – Keep away from heat, sparks, open flames, and hot surfaces. — No smoking.
P220 – Keep/Store away from clothing, incompatible and combustible materials.
P371 + P380 + P375 – In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
P370 + P378 – In case of fire: Use flooding quantities of water spray or fog for extinction.
P260 – Do not breathe dust.
P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P280 – Wear protective gloves, protective clothing, eye protection, and face protection.
P283 – Wear fire/flame resistant/retardant clothing.
P262 – Do not get in eyes, on skin, or on clothing.
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P306 + P360 – IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P363 – Wash contaminated clothing before reuse.
P270 – Do not eat, drink or smoke when using this product.
P301 +P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310 – Immediately call a POISON CENTER or doctor/physician.
P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Sodium Chlorite	7758-19-2	60-100%	
Sodium Nitrate	7631-99-4	10-30%	

Section 04 - First Aid Measures

Inhalation
Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention.

Skin Contact / Absorption
Immediately rinse contaminated clothing and skin with lukewarm, gently flowing water for 30 minutes before removing clothing. Seek immediate medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.

Eye Contact
Immediately flush eye(s) with lukewarm, gently flowing water for 30 minutes, while forcibly holding the eyelid(s) open to ensure complete irrigation of the eye tissue. If a contact lens is present, remove only if easy to do so. Seek immediate medical attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Give large amounts of water. Seek immediate medical attention.

Additional Information
Not Available

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media
Use extinguishing media suitable for surrounding fire. Sodium chlorite is an oxidizing agent. Therefore, flooding quantities of water spray or fog should be used to fight fires.

Unsuitable Extinguishing Media
Do NOT use dry chemical fire extinguishing agents containing ammonium compounds, since an explosive compound can be formed. Do NOT use carbon dioxide, dry chemical powder or other extinguishing agents the smother flames.

Specific Hazards Arising From the Chemical
Dry sodium chlorite decomposes above approximately 175°C forming sodium chlorate, sodium chloride and oxygen. During a fire, hydrogen chloride gas may be generated.

Special Protective Equipment and Precautions for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective gear.
Further Information	Not Available

Section 06 - Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.
Environmental Precautions	Prevent product from entering sewers, waterways or confined spaces.
Methods and Materials for Containment and Cleaning Up	Shovel spilled material into suitable, labelled containers for proper disposal. Large spills: Contact fire and emergency services and supplier for advice.

Section 07 - Handling and Storage

Precautions for Safe Handling	Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, out of direct sunlight. Keep container tightly closed and away from incompatible materials.
Incompatibilities	Combustible, oxidizable or organic materials, acids, metals, sulfur and sulfur compounds, ethylene glycol, red phosphorus, ammonia and amines, and reducing agents.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Sodium Chlorite	Not Established		

Engineering Control(s)

Ventilation Requirements	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
Other	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

Protective Equipment

Eyes/Face	Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.
Hand Protection	Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.
Skin and Body Protection	Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse. Impervious boots of chemically resistant material should be worn at all times. No special footwear is required other than what is mandated at place of work.

Respiratory Protection	Use a dust mask and fume hood as necessary.
Thermal Hazards	Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State	Solid, powder
Colour	White
Odour	Odourless
Odour Threshold	Not Applicable

Property

pH	10-11 (10% solution)
Melting Point/Freezing Point	180°C (decomposes)
Initial Boiling Point and Boiling Range	Not Available
Flash Point	Not Applicable
Evaporation Rate	Not Available
Flammability	Non-flammable
Upper Flammable Limit	Not Applicable
Lower Flammable Limit	Not Applicable
Vapour Pressure (mm Hg, 20^{o}C)	Not Available
Vapour Density (Air=1)	Not Available
Relative Density	Not Available
Solubility(ies)	800g/L @ 20°C
Partition Coefficient: n-octanol/water	Not Available
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	Not Available
Viscosity	Not Available
Explosive Properties	Sodium chlorite is a strong oxidizer as presents a serious fire and explosions hazard when contaminated with oxidizable, combustible, or organic materials.
Specific Gravity (Water=1)	Not Available
% Volatiles by Volume	Not Available

Formula	$NaClO_2$
Molecular Weight	90.44

Section 10 - Stability and Reactivity

Reactivity	The National Fire Prevention Association lists sodium chlorite (over 40% by weight) as a Class 3 Oxidizer. Class 3 Oxidizers cause a severe increase in the burning rate of combustible materials with which they come into contact.
Stability	Normally stable, unless contaminated with organic matter.
Possibility of Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Heat, sparks, friction, shock, impact, open flames, contaminants which react with sodium chlorite, acidic (low) pH.
Incompatible Materials	Combustible, oxidizable or organic materials, acids, metals, sulfur and sulfur compounds, ethylene glycol, red phosphorus, ammonia and amines, and reducing agents.
Hazardous Decomposition Products	Chlorine dioxide (at low pH)

Section 11 - Toxicological Information

Acute Toxicity

Component	Oral LD_{50}	Dermal LD_{50}	Inhalation LC_{50}
Sodium Chlorite	165mg/kg (rat)		230 mg/m^3 (rat, 4hr)

Chronic Toxicity – Carcinogenicity

Component	IARC
Sodium Chlorite	Not Available

Skin Corrosion/Irritation	Corrosive. Capable of producing severe burns, blister and permanent scarring.
Ingestion	Toxic if swallowed. Can cause burns to the lips, mouth and throat with vomiting, nausea and diarrhea.
Inhalation	Generation of dust can cause irritation and burns to the respiratory tract.
Serious Eye Damage/Irritation	Corrosive. Capable of producing serious eye damage, burns and permanent damage, including blindness.
Respiratory or Skin Sensitization	Not Available
Germ Cell Mutagenicity	Not Available
Reproductive Toxicity	Not Available
STOT-Single Exposure	Not Available
STOT-Repeated Exposure	Can cause damage to the spleen through prolonged or repeated exposure.
Aspiration Hazard	Not Available
Synergistic Materials	Not Available

Section 12 – Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Sodium Chlorite	EC_{50}(Green algae, 4d): 1.32g/L	LC_{50}(Cyprinodon variegatus, 96hr): 75g/L	EC_{50}(Daphnia magna, 48hr): 0.0146g/L

Biodegradability	Not Available
Bioaccumulation	Not Available
Mobility	Not Available
Other Adverse Effects	Not Available

Section 13 – Disposal Considerations

Waste From Residues/Unused Products	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 – Transport Information

UN Number	UN1479
UN Proper Shipping Name	OXIDIZING SOLID, N.O.S. (Sodium chlorite)
Transport Hazard Class(es)	5.1
Packaging Group	II
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special Precautions	Not Available
Transport in Bulk	Not Available

Additional Information

Packing Group	Limited Quantity Index
I	0
II	1 Kg
III	5 Kg

TDG

Other	Secure containers (full and/or empty) with suitable hold down devises during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

Section 15 – Regulatory Information

NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

Section 16 – Other Information

Preparation Date August 23, 2016

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution® initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

References:

1) CHEMINFO
2) eChemPortal
3) TOXNET
4) Transportation of Dangerous Goods Canada
5) HSDB
6) ECHA

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