



Safety Data Sheet

Section 01 - Identification

Product Identifier	Soda Ash, Dense
Other Means of Identification	Disodium carbonate, calcined soda, soda ash, soda ash light, sodium carbonate, carbonic acid, disodium salt, sodium carbonate anhydrous, bisodium carbonate, sodium salt, chrysol carbonate, soda, soda monohydrate, sodium carbonate decahydrate, sodium carbonate heptahydrate, sodium carbonate monohydrate, solvay soda, and washing soda.
Product Use and Restrictions on Use	Glass manufacture, detergent manufacture, sodium chemical manufacture, carbonate chemicals manufacture, pulp and paper, brine treatment, water hardness removal, pH adjustment in water or waste water, flue gas desulfurization, coal treatment, ion exchange resin regeneration.
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

Serious Eye Damage/Irritation Category 2

Physical Hazards

No known physical hazards.

Warning

Hazards Statements

H319 – Causes serious eye irritation.

Pictograms



Precautionary Statements

P264 – Wash hands thoroughly after handling.

P280 – Wear eye protection and face protection.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 – If eye irritation persists: Get medical advice/attention.

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Sodium Carbonate	497-19-8	>99%	

Section 04 - First Aid Measures

Inhalation	If symptoms are experienced, remove source of contamination or move victim to fresh air. Seek medical attention.
Skin Contact / Absorption	Remove contaminated clothing. Wash affected area with soap and water for 5 minutes. Seek medical attention. Completely decontaminate clothing, shoes, and leather goods before re-use or discard.
Eye Contact	Contact lenses should never be worn when working with this product. Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. If irritation persists, seek medical attention.
Ingestion	If irritation or discomfort occur, obtain medical advice.
Additional Information	While internal toxicity is low, irritant effects of high concentrations may produce corneal opacities, and vesicular skin reactions in humans with abraded skin only. Treatment is symptomatic and supportive.

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Product does not burn. Use appropriate extinguishing media for material that is supplying the fuel to the fire.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	Corrosive fumes of sodium oxide, carbon monoxide and carbon dioxide are formed in a fire. Sodium carbonate slowly begins to decompose into corrosive sodium oxide and carbon dioxide at 400°C. Closed containers may rupture violently when heated.
Special Protective Equipment and Precautions for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
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. Remove chemicals that can react with the spilled material. If required, notify government occupational health and safety and environmental authorities.
Environmental Precautions	Do not allow sodium carbonate to enter sewers or water systems.
Methods and Materials for Containment and Cleaning Up	Contain material. Shovel or sweep up dry sodium carbonate for recycling or disposal. Neutralize final traces and flush area with water. Contain spilled solutions by diking with absorbent material, such as sand or earth. Solutions can be recovered or carefully diluted with water and cautiously neutralized with acids such as acetic acid or hydrochloric acid.

Section 07 - Handling and Storage

Precautions for Safe Handling	This material is an EYE IRRITANT and CORROSIVE (to aluminum). 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. Avoid generating dust.
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Conditions for Safe Storage Product is hygroscopic and tends to cake on storage. Store in a cool, dry well ventilated place. Keep container tightly closed away from acids and metals such as aluminum and magnesium.

Incompatibilities Aluminium, fluorine, humid air, moisture, acids, magnesium, phosphorus pentoxide, molten lithium, ammonia, nitromethane, phosphorus trichloride, calcium hypochlorite.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Sodium Carbonate	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 safety goggles. A face shield may also be necessary.

Hand Protection No specific requirement, but it is good practice to prevent skin contact.

Skin and Body Protection No specific requirement, but it is good practice to prevent skin contact. Wash contaminated clothing and dry thoroughly before reuse.

No special footwear is required other than what is mandated at place of work.

Respiratory Protection Respiratory protection is not normally required. If use creates dust formations, then a NIOSH approved respirator with a dust cartridge is recommended.

Thermal Hazards Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State Crystalline solid, powder. Grains or lumps.

Colour White

Odour Odourless

Odour Threshold Not Applicable

Property

pH 10.9 (0.1% solution)

Melting Point/Freezing Point 851°C

Initial Boiling Point and Boiling Range Not Applicable. Decomposes.

Flash Point	Not Applicable
Evaporation Rate	Negligible
Flammability	Non-Flammable
Upper Flammable Limit	Not Applicable
Lower Flammable Limit	Not Applicable
Vapour Pressure (mm Hg, 20°C)	Not Applicable
Vapour Density (Air=1)	Not Applicable
Relative Density	Not Available
Solubility(ies)	212.5 g/L water @ 20 °C Soluble in glycerol, insoluble in ethanol and acetone.
Partition Coefficient: n-octanol/water	Not Applicable
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	>400°C
Viscosity	Not Applicable
Explosive Properties	Not Applicable
Specific Gravity (Water=1)	2.53
% Volatiles by Volume	Not Applicable
Formula	Na ₂ CO ₃
Molecular Weight	105.99

Section 10 - Stability and Reactivity

Reactivity	Reacts with water vapour above 400°C to form sodium hydroxide and carbon dioxide.
Stability	Stable. Absorbs moisture and carbon dioxide from the air to form sodium bicarbonate.
Possibility of Hazardous Reactions	None known.
Conditions to Avoid	Generation of dust.
Incompatible Materials	Acids, ammonia, silver nitrate, aluminum, calcium hypochlorite, sodium hydrogen sulfate, starch, fluorine, phosphorus pentoxide, lithium, nitromethane, phosphorus trichloride, magnesium, 2,4,6-trinitrotoluene.
Hazardous Decomposition Products	Corrosive fumes of sodium oxide, carbon monoxide and carbon dioxide are formed in a fire.

Section 11 - Toxicological Information

Acute Toxicity

Component	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Sodium Carbonate	2800mg/kg (rat)	> 2000mg/kg (rat)	400mg/m ³ (guinea pig, 4hr)

Chronic Toxicity – Carcinogenicity

Component	IARC
Sodium Carbonate	Not considered to be carcinogenic by IARC, NTP, ACGIH and OSHA

Skin Corrosion/Irritation	Sodium carbonate moistened with water is a mild irritant. None to very mild irritation was observed when it was applied dry.
Ingestion	Low acute oral toxicity. May cause nausea, vomiting, diarrhea, irritation, and stomach ache.
Inhalation	May cause upper respiratory tract irritation.
Serious Eye Damage/Irritation	Can cause serious eye damage. Capable of producing severe eye burns, permanent injury including blindness.
Respiratory or Skin Sensitization	Not known to be a respiratory or skin sensitizer.
Germ Cell Mutagenicity	Not known to be a mutagen.
Reproductive Toxicity	No risk of developmental or reproductive toxicity.
STOT-Single Exposure	Due to its alkaline properties, an irritation of the respiratory tract is possible.
STOT-Repeated Exposure	Not Available
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 Carbonate	EC ₅₀ (Diatom, 96hr): 242 mg/L	LC ₅₀ (Lepomis macrochirus, 24hr): 167mg/L	LC ₅₀ (Daphnia magna, 24hr): 196mg/L
Biodegradability	Not Available		
Bioaccumulation	Low potential for bioaccumulation. [Low Kow <4]		
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	Not Regulated
UN Proper Shipping Name	Not Regulated
Transport Hazard Class(es)	Not Regulated
Packaging Group	Not Regulated
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special Precautions	Not Available
Transport in Bulk	Not Available

TDG

Other Secure containers (full and/or empty) with suitable hold down devices 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 September 1, 2015

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

ClearTech Industries Inc. - Locations

Corporate Head Office: 1500 Quebec Avenue, Saskatoon, SK, S7K 1V7

Phone: 1(306) 664 – 2522

Fax: 1(888) 281-8109

www.cleartech.ca

24 Hour Emergency Number - All Locations – 1(306) 664-2522