



Safety Data Sheet

Section 01 Identification

Product Identifier	Sodium Bicarbonate Sodium bicarbonate U.S.P. Powdered No. 1
Other Means of Identification	Baking soda, bicarbonate of soda.
Product Use and Restrictions on Use	Leavening agent, cleaner ingredient, bath salt ingredient, water softener, diaper rinse ingredient, feed additive, fire extinguishers, sponge rubber and plastics.
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7 Phone: 800.387.7503 Fax: 888.281.8109 www.cleartech.ca
Prepared By	ClearTech Industries Inc. technical writer
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Section 02 Hazard Identification

GHS-Classification

This product has been assessed in accordance with the Hazardous Products Regulations and is not classified as a hazardous substance or mixture.

Hazards Not Otherwise Classified

Not available

Supplemental Information

Not available

Section 03 Composition / Information on Ingredients

Hazardous Ingredients:

Chemical name	Common name(s)	CAS number	Concentration (w/w%)
Sodium Bicarbonate		144-55-8	>99%

Section 04 First-Aid Measures

Description of necessary first-aid measures

Inhalation	Get medical advice / attention if you feel unwell or are concerned.
Ingestion	Get medical advice / attention if you feel unwell or are concerned.
Skin contact	Rinse / wash with lukewarm, gently flowing water for 5 minutes or until product is removed. If skin irritation occurs or if you feel unwell: Get medical advice / attention.

Eye contact Gently brush product off face. Do not rub eyes. Let the eyes water naturally for a few minutes. Look right and left, then up and down. If particle / dust does not come out, cautiously rinse eye with lukewarm gently flowing water for 5 minutes or until particle / dust is removed, while holding the eyelids open. If eye irritation persists: Get medical advice / attention. Do not attempt to manually remove anything from the eyes.

Most important symptoms and effects, both acute and delayed

Inhalation Coughing.
Ingestion Not available
Skin contact Not available
Eye contact May cause eye irritation. Redness.
Further information For further information see Section 11 Toxicological Information.

Section 05 Fire Fighting Measures

Suitable extinguishing media Extinguish fire using extinguishing agents suitable for the surrounding 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 bicarbonate starts decomposing when heated over 50°C, releasing carbon dioxide, sodium carbonate and water, with total decomposition at 270°C. If extremely large quantities are involved in a fire, significant levels of carbon dioxide may be generated by heat.
Special protective equipment for fire-fighters Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

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.
Environmental Precautions Prevent material from entering sewers or confined spaces. Notify local health and wildlife officials. Notify operators of nearby water intakes.
Methods and Materials for Containment and Cleaning Up Dry sweeping is not recommended. Pre-dampening the material or use of a vacuum is preferred. Shovel into clean, dry, labelled containers and cover. Flush area with water.

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. Avoid generating dust. Prevent the release of dust into the workplace air. Inspect containers for damage or leaks before handling. If the original label is damaged or missing replace with a workplace label.

Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, out of direct sunlight, away from heat sources and incompatible materials. Always store in original labeled container. Keep containers tightly closed when not in use and when empty. Protect label and keep it visible.
Incompatibilities	Acids, monoammonium phosphate, sodium-potassium alloy, 2-furaldehyde.

Section 08 Exposure Controls and Personal Protection

Exposure limits

There are no known exposure limits for this product.

Engineering controls

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 No specific requirement beyond the required hygiene facilities at the place of work.

Protective equipment

Eye and face protection Safety glasses should be worn while handling this product. Contact lenses should not be worn.
No specific requirement, but it is good practice to wear chemical safety goggles.

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

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

Skin and body protection Dry product is generally non-irritating to intact skin. However, this product can be irritating where skin has been damaged and can create skin irritation after long exposures when moisture is present. Under such conditions, long-sleeved clothing is recommended to minimize skin contact.

Respiratory protection No specific guidelines are available. Where required, an approved respirator suitable for non-toxic dust may be adequate.

Thermal hazards Not available

Section 09 Physical and Chemical Properties

Appearance

Physical state Solid powder

Colour White

Odour Odourless

Odour threshold Not available

Property

pH 8.0 - 8.6 (1% solution)

Melting point / freezing point Decomposes

Initial boiling point and boiling range	Decomposes
Flash point	Not applicable
Evaporation rate	Not available
Flammability	Non-flammable
Upper flammable limit	Not available
Lower flammable limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	2.1 g/cm ³
Solubility	100 g/L @ 25°C
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	50°C
Viscosity	Not available
Specific gravity	Not applicable
Formula	NaHCO ₃
Molecular weight	84.01 g/mol

Section 10 Stability and Reactivity

Reactivity	Readily decomposed by acids. In aqueous solution, it begins to break up into carbon dioxide and sodium carbonate at about 20°C and completely on boiling.
Stability	Normally stable in dry air at room temperature. In moist air, it slowly decomposes and loses carbon dioxide.
Possibility of hazardous reactions	None known.
Conditions to avoid	Heat, moisture
Incompatible materials	Acids, monoammonium phosphate, sodium-potassium alloy, 2-furaldehyde.
Hazardous decomposition products	Corrosive fumes of sodium oxide, carbon monoxide and carbon dioxide are formed in a fire. Sodium bicarbonate starts decomposing when heated over 50°C, releasing carbon dioxide, sodium carbonate and water.

Section 11 Toxicological Information

Acute Toxicity (LD50 values)

Safety Data Sheet

Sodium Bicarbonate
ClearTech Industries Inc

Component	Route	Species	Value	Exposure time
Sodium Bicarbonate	Oral	Rat	4220 mg/kg	
	Inhalation	Rat	>4740 mg/L	4.5 hours

Percentage of product with unknown toxicity:

Toxic Health Effect Summary

Chemical Characteristics	Sodium bicarbonate is generally regarded as safe.
Skin	Not available
Ingestion	May cause nausea, vomiting and abdominal pain. Large doses can cause alkalosis.
Inhalation	May cause coughing or difficulty in breathing. Adverse symptoms may include: respiratory tract irritation, coughing.
Eye contact	Mild irritant
Delayed and Chronic	Not available

Section 12 Ecological Information

Ecotoxicity

Component	Type	Species	Value	Exposure Time
Sodium Bicarbonate	EC50	Diatom	650 mg/L	96 hours
	LC50	Bluegill	7100 mg/L	96 hours
	EC50	Ceriodaphnia dubia	1020 mg/L	48 hours

Biodegradability	Product is a metabolite in many biological systems
Bioaccumulation	Naturally present in the environment
Mobility	Water soluble
Other adverse effects	Not available

Section 13 Disposal Considerations

Waste From Residues / Unused Products	Dispose in accordance with all federal, provincial, and local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Do not remove label, follow label warnings even after the container is empty. Empty containers should be recycled or disposed of at an approved waste handling facility.

Section 14 Transport Information

UN number	Not available
UN proper shipping name	Not available
Transport hazard class(es)	Not available
Packing group	Not available
Excepted quantities	Not available

Environmental hazards	Not available
Special precautions	Not available
Transport in bulk	Not available
Additional information	Secure containers (full 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 16 of this SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and published test data regarding the classification of this product are listed in the references at section 16 of this SDS.

Section 15 Regulatory Information

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

Section 16 Other Information

Date of latest revision: January 22, 2019

Note: The responsibility to provide a safe workplace remains with the buyer / user. The buyer / 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 buyer / user to comply with all applicable laws and regulations regarding handling, using, reselling and shipping this product.

Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the RDC 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) TOXNET
- 3) eChemPortal
- 4) ECHA
- 5) Transportation of Dangerous Goods Canada
- 6) HSDB
- 7) PAN