



MATERIAL SAFETY DATA SHEET

Sodium Bicarbonate

Section 01 - Chemical And Product And Company Information

Product Identifier Sodium Bicarbonate

Product Use Leavening agent, cleaner ingredient, bath salt ingredient, water softener, diaper rinse ingredient, feed additive.

Supplier Name..... ClearTech Industries Inc.
2302 Hanselman Avenue
Saskatoon, SK. Canada
S7L 5Z3

Prepared By..... ClearTech Industries Inc. Technical Department
Phone: (306)664-2522

Preparation Date..... December 18, 2009

24-Hour Emergency Phone..... 306-664-2522

Section 02 - Composition / Information on Ingredients

Hazardous Ingredients..... Sodium Bicarbonate 100%

CAS Number..... Sodium Bicarbonate 144-55-8

Synonym (s)..... Baking soda, bicarbonate of soda

Section 03 - Hazard Identification

Inhalation..... May cause coughing and mild respiratory irritation.

Skin Contact / Absorption..... Generally non-irritating but may cause mild skin irritation when moisture is present.

Eye Contact..... Causes mild eye irritation when excessive dust is present.

Ingestion..... Sodium bicarbonate is a GRAS (generally recognized as safe) food ingredient. Excessive consumption may cause nausea, vomiting, and abdominal pains. Doses over 5g/kg body weight can cause alkalosis and expansion in extracellular fluid volume with edema.



Exposure Limits..... OSHA/PEL-TWA= 15mg/m³ (total dust)
ACGIH/TLV-TWA= 10mg/m³ (total dust)
OSHA/PEL-TWA= 5mg/m³ (respirable dust)

Section 04 - First Aid Measures

Inhalation..... Remove victim to fresh air. Seek medical attention if breathing is difficult.

Skin Contact / Absorption..... Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.

Eye Contact..... Flush immediately with water for at least 20 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek medical attention if irritation occurs and persists.

Ingestion..... Give large amounts of water. Do not give anything by mouth to an unconscious or convulsing person. Seek medical attention if discomfort persists or large amounts were ingested.

Additional Information..... Internal toxicity is low. Treatment is symptomatic and supportive.

Section 05 - Fire Fighting

Conditions of Flammability..... Non-flammable

Means of Extinction..... Product does not burn. This material is used as a dry powder extinguishing agent. Use appropriate extinguishing media for material that is supplying the fuel to the fire.

Flash Point..... Not applicable

Auto-ignition Temperature..... Not applicable

Upper Flammable Limit Not applicable

Lower Flammable Limit..... Not applicable

Hazardous Combustible Products... If extremely large quantities are involved, significant levels of carbon dioxide may be generated. Soda ash, another decomposition product, exists at temperatures greater than 93°C.



Special Fire Fighting Procedures..... Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

Explosion Hazards..... Not applicable

Section 06 - Accidental Release Measures

Leak / Spill..... This product, if spilled, can be recovered and re-used if contamination does not present a problem. Vacuum or sweep up the material. If the spilled product is unusable, dispose of material as per provincial or federal regulations. Flush with water to remove any residue.

Deactivating Materials..... Not available

Section 07 - Handling and Storage

Handling Procedures..... Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Use approved respiratory protection when ventilation systems are not available.

Storage Requirements..... Store in a cool, dry, well-ventilated place. Keep container tightly closed, and away from incompatible materials. Long term storage may result in caking.

Section 08 - Personal Protection and Exposure Controls

Protective Equipment

Eyes..... Chemical goggles or safety glasses should be worn. Contact lenses should not be worn when working with this product.

Respiratory..... Use NIOSH/MSHA approved filter mask for excessive dusts.

Gloves..... 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, gloves are recommended to minimize skin contact.

Clothing..... 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.

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

Engineering Controls

Ventilation Requirements..... Mechanical ventilation (dilution or local exhaust) to prevent release of airborne dust and to supply sufficient replacement air to make up for air removed by exhaust systems.

Other..... Eyewash should be in close proximity.

Section 09 - Physical and Chemical Properties

Physical State..... Solid

Odor and Appearance..... Odourless white powder

Odor Threshold..... Not applicable

Specific Gravity (Water=1)..... 2.20

Vapor Pressure (mm Hg, 20C)..... Not available

Vapor Density (Air=1)..... Not applicable

Evaporation Rate..... Not applicable

Boiling Point..... Not applicable

Freeze/Melting Point..... >270°C (decomposes)

pH..... 8.3 (1% solution)

Water/Oil Distribution Coefficient.... Not available

Bulk Density..... 1057 kg/m³

% Volatiles by Volume..... Not available

Solubility in Water..... 9.0% by weight at 20°C

Molecular Formula..... NaHCO₃

Molecular Weight..... 84.01

Section 10 - Stability and Reactivity

- Stability**..... Stable under normal conditions.
- Incompatibility**..... Incompatible with acids except under controlled conditions.
- Hazardous Products of Decomposition**.. Reacts with acids to release carbon dioxide and heat.
- Polymerization**..... Will not occur

Section 11 - Toxicological Information

- Irritancy**..... Non-irritating (mild irritant in severe cases of overexposure)
- Sensitization**..... Skin irritation may be aggravated in persons with skin lesions.
- Chronic/Acute Effects**..... Repeated skin exposure may lead to contact dermatitis. Skin irritation may be aggravated in persons with existing skin lesions or when moisture is present. Prolonged contact with dusts or vapours may cause conjunctivitis. Breathing of dust may aggravate acute or chronic asthma and other chronic pulmonary disease.
- Synergistic Materials**..... Not available
- Animal Toxicity Data**..... LD50(rat,oral)= > 4300mg/kg (20% slurry)
LD50(rat,oral)= 6000mg/kg (50% slurry)
- Carcinogenicity**..... Not considered to be carcinogenic as per ACGIH, IARC, OSHA, and NTP.
- Reproductive Toxicity**..... Not available
- Teratogenicity**..... Not available
- Mutagenicity**..... Not available

Section 12 - Ecological Information

- Fish Toxicity**..... LC₅₀(Culex sp. larvae or mosquito,48 hour)= 2000mg/L
- Biodegradability**..... Not available
- Environmental Effects**..... Not available



Section 13 - Disposal Consideration

Waste Disposal..... Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 - Transportation Information

TDG Classification

Class..... Not regulated

Group..... Not regulated

PIN Number..... Not regulated

Other..... Secure containers (full and/or empty) with suitable hold down devices during shipment.

Section 15 - Regulatory Information

WHMIS Classification.....Not a controlled product

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

NSF Certification.....Product is certified under NSF/ANSI Standard 60 for corrosion/scale control and pH adjustment at a maximum dosage of 100mg/L.

Section 16 - Other Information

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 / MSDS 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 Material 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 or technical service department.



ClearTech Industries Inc. - Locations

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Location	Address	Postal Code	Phone Number	Fax Number
Richmond, B.C.	12431 Horseshoe Way	V7A 4X6	604-272-4000	604-272-4596
Calgary, AB.	5516E - 40 th St. S.E.	T2C 2A1	403-279-1096	403-236-0989
Edmonton, AB.	11750 - 180 th Street	T5S 1N7	780-452-6000	780-452-4600
Saskatoon, SK.	2302 Hanselman Avenue	S7L 5Z3	306-933-0177	306-933-3282
Regina, SK.	555 Henderson Drive	S42 5X2	306-721-7737	306-721-8611
Winnipeg, MB.	340 Saulteaux Crescent	R3J 3T2	204-987-9777	204-987-9770
Mississauga, ON.	7480 Bath Road	L4T 1L2	905-612-0566	905-612-0575

24 Hour Emergency Number - All Locations - 306-664-2522