



# MATERIAL SAFETY DATA SHEET

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## BICARBONATE OF SODA

### SECTION I: IDENTIFICATION OF PRODUCT

**Product Name:** BICARBONATE OF SODA  
**Chemical Family:** Alkali Inorganic sodium salt  
**WHMIS Classification:** Not controlled  
**Workplace Hazard:** Not applicable

**Product Use:** Calcium Sequestor  
**TDG Classification:** Not regulated  
**Packaging Group:** Not applicable  
**PIN:** Not applicable

### SECTION II: HAZARDOUS INGREDIENTS

Ingredients	Percent	CAS Number	LD <sub>50</sub> (Rat/Oral)	LC <sub>50</sub> (Species/Route)
Sodium Bicarbonate	100	144-55-8	4300 mg/kg	Not determined

### SECTION III: TOXICOLOGICAL PROPERTIES

**Route of entry:**  Skin  Eye Contact  Inhalation  Ingestion

**Effects of acute exposure:** Skin irritation may be aggravated in persons with existing skin lesions. Breathing of dust may aggravate acute or chronic asthma and other chronic pulmonary disease.

**Effects of chronic exposure:** Repeated exposure may lead to contact dermatitis. Prolonged contact with dusts or vapours may cause conjunctivitis

**Exposure limits:** ACGIH TLV – 10 mg/ m<sup>3</sup>

**Irritancy of product:** Application of large amounts to the skin may cause alkalosis. May cause mild skin irritation. Causes mild eye irritation. Mildly toxic by ingestion. May cause nausea, vomiting, and abdominal pains.

**Sensitization to product:** Not available

**Carcinogenicity:** Not reported

**Reproductive toxicity:** Not available

**Teratogenicity:** Not available

**Mutagenicity:** Not available

**Name of toxicological synergistic products:** Not available



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## SECTION IV: FIRST AID MEASURES

**Skin contact:** Wash with soap and water. If adverse symptoms develop, seek medical attention. Wash clothing separately before reuse.

**Eye contact:** Flush eyes with water for at least 15 minutes. If adverse symptoms develop, seek medical attention.

**Inhalation:** Remove victim to fresh air. If breathing has stopped administer CPR and seek medical attention.

**Ingestion:** If conscious give 2 to 4 glasses of water to drink, but DO NOT induce vomiting. Get medical attention. Do not give anything by mouth to an unconscious or convulsing person.

## SECTION V: PHYSICAL DATA

**Physical state:** Solid

**Appearance and odour:** White, granular; odourless

**Odour threshold:** Not applicable

**Specific gravity:** 2.20

**Vapor pressure (mmHG):** Not applicable

**Vapor density (Air=1):** Not applicable

**Evaporation rate:** Not applicable

**Boiling point (°C):** Not applicable

**Freeze/Melting point (°C):** Decomposes

**pH:** 8.3 (1% wt/wt)

**Solubility:** 8.8 % by wt.@20°C



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## SECTION VI: FIRE AND EXPLOSION DATA

**Conditions of flammability:** Non-flammable. Does not support combustion or flame

**Means of extinguishing:** Not combustible. This material is used as a dry powder extinguishing agent suitable for all classes of fires.

**Flash point:** Not applicable

**Upper flammable limit:** Not applicable

**Lower flammable limit:** Not applicable

**Auto-ignition temperature:** Not applicable

**Hazardous combustion products:** Not applicable

**Explosion data-sensitivity to mechanical impact / static discharge:** If extremely large quantities are involved, significant levels of carbon dioxide may be generated making necessary the use of self-contained breathing apparatus. (Carbon dioxide is an asphyxiate at levels >5%). Soda ash, another decomposition product existing at temperatures >93°C, is a respiratory and skin irritant.

## SECTION VII: REACTIVITY DATA

**Chemically unstable (conditions):** Stable

**Product incompatible with:** Avoid contact with acids except under controlled conditions. Moisture and heat sensitive; decomposes weak acids releasing heat forming salt, water and carbon dioxide.

**Conditions of reactivity:** At ambient temperatures and atmospheric pressure, tends to evolve carbon dioxide slowly and absorb moisture. At elevated temperatures carbon dioxide and water are evolved.

**Hazardous decomposition products:** When temperature > 190 C, carbon dioxide gas will be released to the atmosphere. The resulting dust may be irritation to the eyes, skin and respiratory tract.



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## SECTION VIII: PREVENTATIVE MEASURES

**Personal protective equipment:** Suggest NIOSH/MSHA approved dust mask. 10 changes per hour suggested for ventilation. Suggest plastic or rubber gloves. Suggest goggles with side shields. Chemical resistant boots. Maintain a sink, safety shower, and eyewash fountain in work area. Have oxygen readily available.

**Specific engineering controls:** Use general room dilution or local exhaust ventilation when excessive dust is expected in the work environment.

**Procedures for leak/spills:** Use appropriate safety equipment. Small spills: sweep up and put into approved DOT containers for disposal or reuse. Large spills, do not allow to enter waterways, sweep or shovel into approved DOT containers for reuse or disposal.

**Waste disposal:** All waste should be disposed of according to Federal, Provincial and local regulations. Containers should NOT be reused. Containers should be disposed of in accordance with government regulations

**Handling procedures and equipment:** Avoid ingestion. Practice reasonable caution and personal cleanliness. Avoid skin and eye contact.

**Storage requirements:** Keep in a cool, dry place, in tightly closed containers away from acids. Long-term storage may result in caking.

**Special shipping information:** Not applicable.

## SECTION IX: PREPARATION

**Date updated:** June, 2007

**Prepared by:** Product Safety Committee

All the recommendations and suggestions herein concerning this product are based upon tests and data believed to be reliable, however it is the user's responsibility to determine the safety, toxicity and sustainability for their own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Q'Max Solutions Inc. as to the effects of such use, the results to be obtained, or the safety and toxicity of the product nor does Q'Max Solutions Inc. assume any liability arising out of use by others. Nor is the information herein to be considered as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.