



Prairie Mud Service

Fluid Solutions Thru Experience and Technology

SODIUM BICARBONATE

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

SODIUM BICARBONATE

24 HOUR EMERGENCY TELEPHONE:

CANUTEC : 613:996-6666

Medical Emergency Phone:

1-888-234-1828 (USA)

+001-952-853-1925(INT'L)

Supplier/Distributor: Prairie Mud Service

738 6th Street

Estevan, SK S4A 1A4 306-634-3411

Product Use: Feed ingredient, Water Treatment, General Industrial Use

Chemical Name: Sodium bicarbonate

Chemical Formula: NaHCO₃

Synonyms/Common Names: Baking Soda

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
White crystalline powder; no odor. Not a fire hazard. No significant health or environmental effects associated with this material.	
<u>HMIS Rating</u>	
Health	0
Fire	0
Reactivity	0

Potential Health Effects

EYE: Not an eye irritant.

SKIN CONTACT: Not a skin irritant.

INGESTION: Material is practically non-toxic. Small amounts (1-2 tablespoonfuls) swallowed during normal handling operations are not likely to cause injury as long as the stomach is not overly full; swallowing larger amounts may cause injury (see Note in Section IV).

INHALATION: None known.

SUBCHRONIC EFFECTS/CARCINOGENICITY: Based on published studies on its effects in animals and humans, sodium bicarbonate is not teratogenic or genotoxic. Only known subchronic effect is that

SAFETY DATA SHEET

of a marked systemic alkalosis. Not classified as carcinogenic by NTP, IARC, OSHA, ACGIH or NIOSH.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Ingredient (% by Weight)</u>		<u>CAS Number</u>	
Sodium Bicarbonate	100%	144-55-8	PAGE 2 OF 5
Not hazardous under OSHA Standard 29 CFR 1910.1200.			
Not a WHMIS controlled substance.			

4. FIRST AID MEASURES

EYES: Check for and remove contacts. Flood eyes with clean flowing water, low pressure and luke warm (not hot) if possible, occasionally lifting eyelids.

INGESTION: If large amounts of this material are swallowed, do not induce vomiting. Administer water if person is conscious. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Large doses may produce systemic alkalosis and expansion in extracellular fluid volume with edema.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASHPOINT: Not combustible

METHOD USED: Not applicable

EXTINGUISHING MEDIA: Non-combustible material. Use extinguishing media appropriate for surrounding fire.

FIRE-FIGHTING INSTRUCTIONS: Carbon Dioxide may be generated making necessary the use of a self-contained breathing apparatus (SCBA) and full protective equipment (Bunker Gear). Carbon dioxide is an asphyxiant at levels over 5% w/w. Sodium oxide, another thermal decomposition product existing at temperatures above 1564°F is a respiratory, eye, and skin irritant. Avoid inhalation, eye and skin contact with sodium oxide dusts.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

FLAMMABLE LIMITS

LFL: Not applicable

UFL: Not applicable

6. ACCIDENTAL RELEASE MEASURES

Scoop up into dry, clean containers. Wash away small uncontaminated amounts of residue with water.

7. HANDLING AND STORAGE

Store in cool, dry areas and away from incompatible substances (see Section 10).

Sodium Bicarbonate reacts with acids to yield carbon dioxide gas which can accumulate in confined spaces. Do not enter confined spaces until they have been well ventilated and carbon dioxide and oxygen levels have been determined to be safe.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

AIRBORNE EXPOSURE LIMITS: None established.

RESPIRATORY PROTECTION: Dust mask required if total dust level exceeds 10 mg/m³.

PROTECTIVE GLOVES: General purpose for handling dry product. Impervious gloves when working



with solutions.

EYE PROTECTION: Safety glasses when handling bulk material or when dusts are generated.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Full cover clothing. Apron where splashing may occur when working with solutions.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White crystalline powder.

ODOR: None.

PHYSICAL STATE: Solid

pH AS IS: Not Applicable

pH (1% SOLN. w/v): 8.2

VAPOR PRESSURE: Not applicable.

VAPOR DENSITY: Not applicable.

BOILING POINT: Not applicable.

FREEZING/MELTING POINT: Not applicable.

SOLUBILITY IN WATER: 8.6 g/100 ml @ 20°C.

BULK DENSITY (g/cc): 62 lb/Ft³

% VOCs: Not applicable.

VOLATILE ORGANIC COMPOUNDS: Not applicable.

MOLECULAR WEIGHT: 84.02

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.

CONDITIONS TO AVOID: Temperatures above 65°C (150°F).

INCOMPATIBILITY WITH OTHER MATERIALS: Reacts with acids to yield carbon dioxide. May also yield free caustic in presence of lime dust (CaO) and moisture (i.e., water, perspiration). Dangerous reaction with monoammonium phosphate or a sodium-potassium alloy may occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Heating above 100°C may cause dangerous levels of carbon dioxide gas to be present in confined spaces. Yields sodium oxide if exposed to temperatures above 850°C. Avoid inhalation, eye and skin contact with sodium oxide.

HAZARDOUS POLYMERIZATION: Not applicable.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: The material was minimally irritating to unwashed eyes and practically non-irritating to washed eyes (rabbits).

SKIN EFFECTS: Not a skin irritant or dermally toxic. Not a contact sensitizer.

ACUTE ORAL EFFECTS: Acute Oral-rat LD₅₀ = 7.3 g/kg.

ACUTE INHALATION: LC₅₀ (rat) > 4.74 mg/l.

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY:

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Daphnids: EC₅₀ = 4100 mg/l.

Bluegill: LC₅₀ = 7100 mg/l.

Rainbow Trout: LC₅₀ = 7700mg/l.

PERSISTENCE: This product is not expected to persist in the environment.

BIOACCUMULATION: This product is not expected to bioaccumulate.

BIODEGRADATION: This material is inorganic and not subject to biodegradation.

13. DISPOSAL CONSIDERATIONS

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Bury in a secured landfill in accordance with all local, state and federal environmental regulations.

Empty containers may be incinerated or discarded as general trash.

14. TRANSPORTATION INFORMATION

D.O.T. SHIPPING NAME: Not regulated

15. REGULATORY INFORMATION

CLEAN AIR ACT SECTION 611: Material neither contains nor is it manufactured with ozone depleting substances (ODS).

FEDERAL WATER POLLUTION CONTROL ACT (40 CFR 401.15): Material contains no intentionally added or detectable (contaminant) levels of EPA priority toxic pollutants.

FOOD AND DRUG ADMINISTRATION: Generally Recognized As Safe (GRAS) direct food additive (21 CFR 184.1736).

US DEPARTMENT OF AGRICULTURE: List of Proprietary Substances - Permitted Use Codes 3A, J1, A1, G1, and L1.

CERCLA REPORTABLE QUANTITY: None

OSHA: Not hazardous under 29 CFR 1910.1200

RCRA: Not a hazardous material or a hazardous waste by listing or characteristic.

SARA TITLE III:

Section 302, Extremely Hazardous Substances: None

Section 311/312, Hazardous Categories: Non-hazardous

Section 313, Toxic Chemicals: None

Sodium Bicarbonate is reported in the EPA TSCA Inventory List.

Contains no VOCs.

NATIONAL STOCKING NUMBER: 6810002646618, Contract No. DLA 40086C1831

NSF STANDARD 60: Corrosion and Scale Control in Potable Water. Max use 200 mg/l.

CANADA-DSL

EUROPEAN INVENTORY (EINECS): 205-633-8

JAPANESE INVENTORY (MITI): 1-164

AUSTRALIAN INVENTORY (AICS): Carbonic acid, monosodium salt.

KOREA- yes

PHILLIPINE- yes

16. OTHER INFORMATION

SUPERSEDES DATE: 07/12/07

REASON FOR REVISION: New ANSI Revision.

Revised: 06 January 2016

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