



SODIUM BICARBONATE

Material Safety Data Sheet

CHEMICAL PRODUCT & COMPANY IDENTIFICATION	
PRODUCT NAME: Sodium Bicarbonate MANUFACTURER: Natural Soda, Inc. 3200 Rio Blanco County Road 31 Rifle, Colorado 81650 USA Phone Number: 1-970-878-3674	EMERGENCY PHONE NUMBERS (24/7): CHEMTREC: 800-424-9300 PREPARATIONS/REVISION DATE: April 24, 2014 <i>Supersedes August 17, 2011 Version</i>
COMPOSITION / INFORMATION ON INGREDIENTS	
NOTE: See Section 15 for Exposure Limits PRODUCT NAME: Sodium Bicarbonate FORMULA: NaHCO ₃ CHEMICAL NAME: Sodium Bicarbonate SYNONYMS: Baking Soda, Bicarbonate of Soda	COMPONENTS: Material: Sodium Bicarbonate CAS Number: 144-55-8 Percent: 99% Maximum Use: 100 mg/L
HAZARD IDENTIFICATIONS	
EMERGENCY OVERVIEW: Sodium Bicarbonate is a white, granular solid. It will not burn in a fire; can be used as a dry power-extinguishing agent. PRIMARY ROUTES OF EXPOSURE: Inhalation (breathing); eye and skin contact.	SIGNS AND SYMPTOMS OF EXPOSURE: INHALATION: Breathing dusts may cause coughing or difficulty breathing. EYE CONTACT: Direct eye contact may produce irritation, reddening or tearing. SKIN CONTACT: Direct contact may produce irritation.
EMERGENCY & FIRST AID PROCEDURES	
EYES: Immediately rinse eyes with water. Remove any contact lenses, and continue flushing eyes with running water for at least 15 minutes. Get immediate medical attention. SKIN: Wash affected areas with plenty of water, and soap if available, for several minutes. Seek medical attention if irritation develops or persists.	INHALATION: Remove from area to fresh air. Seek medical attention if respiratory irritation develops or if breathing becomes difficult. INGESTION: May cause nausea, vomiting and abdominal pain. Large doses can cause alkalosis. SKIN CONTACT: Direct contact may produce irritation.
FIRE FIGHTING MEASURES	
GENERAL HAZARDS: This product will not burn, and can be used as a dry powder extinguishing medium. UEL/LEL: Not Applicable FLASHPOINT: Not Applicable	AUTOIGNITION TEMPERATURE: Not Applicable FLAMMABILITY CLASSIFICATION: Not Applicable EXTINGUISHING MEDIA: Use material suitable for surrounding fire conditions.
ACCIDENTAL RELEASE MEASURES	
ACTION TO TAKE FOR SPILLS OR LEAKS: For dry spills, sweep or shovel and place in containers for disposal in accordance with applicable regulations (see Disposal Considerations and Regulatory Information Sections). Avoid contamination of bodies of water during cleanup.	
HANDLING & STORAGE	
GENERAL: Store in a cool, dry area. Good housekeeping should be maintained to minimize dust accumulation and generation.	HYGIENE PRACTICES: Avoid contact with eyes, skin and clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking or smoking.
EXPOSURE CONTROL/ PERSONAL PROTECTION	
ENGINEERING CONTROLS: Use local exhaust ventilation to keep airborne levels below exposure limits (see Regulatory Information Section). EYE PROTECTION: Use vented goggles or safety glasses in excessively dusty conditions. SKIN PROTECTION: Not required under normal conditions. Use gloves, protective clothing if excessively dusty, or if skin is damaged.	RESPIRATORY PROTECTION: None required where adequate ventilation is provided. If airborne concentrations are high, use a NIOSH/ MSHA approved respirator that has been selected by a technically qualified person for the specific work conditions.
PHYSICAL & CHEMICAL PROPERTIES	
SOLUBILITY IN WATER: 8.8% at 20°C APPEARANCE: White granular solid MOLECULAR WIEGHT: 84.01 BOILING POINT: Decomposes MELTING POINT: N/A Decomposes without melting	pH VALUE: 1% Solution = 8.2-8.5 FLASH POINT: Not Applicable SPECIFIC GRAVITY: (H ₂ O) = 4°C): 2.16 BULK DENSITY: 60 lbs/ ft ³ VAPOR PRESSURE: Not Applicable
STABLILITY & REACTIVITY DATA	
STABILITY: Stable in dry air, in moist air forms sodium carbonate, an irritant. INCOMPATIBILITY: Acids, aluminum and phosphoric-pent oxide.	HAZARDOUS DECOMPOSITION PRODUCTS: When heated to decomposition, sodium bicarbonate produces carbon dioxide. HAZORDOUS POLYMERIZATION: Will not occur.
TOXICOLOGICAL EFFECTS	
EYES: Mid (rabbit) 100 mg/ 30 sec SKIN: Mid (human) 30 mg/ 3 days-intermittent INGESTION: Oral LD60 (rat) 4220 mg/kg Oral LD60 (mouse) 3360 mg/kg Oral LD5 (man) 20 mg/kg/ 5 days-intermittent Oral LD5 (infant) 1260 mg/kg	CARDCINOGENICITY: Sodium Bicarbonate is not listed as a carcinogen by the Environmental Protection Agency (EPA), the State of California, the National Toxicology Program, or the International Agency for Research on Cancer. See Regulatory Information Section for additional information.

ECOLOGICAL DATA	
None Available	
DISPOSAL CONSIDERATIONS	
DISPOSAL GUIDANCE: If permitted by local and state regulations, place in a hazardous or industrial waste landfill. Tonnage quantities are not, however, recommended for the landfill, and if possible, should be re-used for an appropriate application. Small quantities may be flushed to sewers if permitted by NPDES or POTW permit. Refer to federal, state, provincial and local regulations for applicable site-specific requirements. Keep out of drinking water sources. See Regulatory Information for more details.	
TRANSPORT REGULATIONS	
U.S. DEPARTMENT OF TRANSPORTATION (DOT) IDENTIFICATION NUMBER: Sodium Bicarbonate is not a DOT Hazardous Material.	
INTERNATIONAL TRANSPORTATION: Sodium Bicarbonate has no U.N. number, and is not regulated under international rail, highway, water, or air transport regulations.	
TRANSPORTATION OF DANGEROUS GOODS (TDG): Not Regulated.	
REGULATORY INFORMATION	
TSCA NUMBER: 144-55-8	CALIFORNIA PROPOSITION 65: Not listed.
RCRA (40 CFR 261): Not listed under any section.	FEDERAL DRUG AGENCY (FDA): Sodium bicarbonate is permitted for the following uses: Antibiotic manufacturing; cake, pancake and ready-mixes; catalyst manufacture; chemical; dentifrices; explosives; fire extinguishers; food colors; food conditioner; papermaking; pharmaceuticals; photography; self-rising flour; starches; sugar refining; textiles.
CERCLA (SUPERFUND): Not listed under any section.	
CLEAN WATER ACT (CWA): Not listed.	
SAFE WATER DRINKING ACT (SWDA): Not listed.	
OSHA: Treat as particulates not otherwise regulated.	
ACGIH: Treat as particulates not otherwise regulated.	
INTERNATIONAL AGENCY for RESEARCH on CANCER: Not listed.	WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEMS (WHMIS): Not a controlled product.
NTP ANNUAL REPORT ON CARCINOGENS:	EU CLASSIFICATION: Not a dangerous substance.
OSHA CARCINOGEN: Not listed.	SARA III: Section 302-No:311-Yes: 312-Yes: 313-No
CONEG MODEL LEGISLATION: Not listed.	
OTHER INFORMATION	
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASSIFICATION: 4=Severe, 3=Serious, 2=Moderate, 1=Slight, 0=Minimal	HAZARDOUS MATERIALS INFORMATION SYSTEM (HMIS): 4=Extreme, 3=High, 2=Moderate, 1=Slight, 0=Insignificant
HEALTH=1	BLUE (Acute Health)=1
FLAMMABILITY=0	RED (Flammability)=0
REACTIVITY=0	YELLOW (Reactivity)=0
NOTICE	
<i>Judgments as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, Natural Soda, Inc. extends no warranties, makes no representation, and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes for consequences of its use.</i>	
REFERENCES	
<p>American Conference of Governmental Industrial Hygienists (ACGIH). 1986. <i>Documentation of threshold limit values and biological exposure indices</i>. 5th ed. Cincinnati, OH. American Conference of Governmental Industrial Hygienists (ACGIH). 1990. <i>1990-1991 Threshold limit values for chemical substances and physical agents and biological exposure indices</i>. Cincinnati, OH.</p> <p>Budavari, S., M. J. O'Neil, A. Smith, and P. E. Heckelman, eds. 1989. <i>The Merck Index</i>. 11th ed. Rahway, NJ: Merck & Co., Inc.</p> <p>Clayton, G. D., and F. E. Clayton, eds. 1981. <i>Patty's Industrial Hygiene and Toxicology</i>. 3rd ed. New York: Wiley & Sons.</p> <p>Department of Transportation (DOT). 1990. 49 S172.102. October 1.</p> <p>Department of Transportation (DOT). 1991. 46 S150.105. August 23.</p> <p>International Agency for Research on Cancer (IARC). 1987. <i>IARC monographs on the evaluation of the carcinogenic risk of chemicals to humans. Supplement 7, Overall evaluation of carcinogenicity: An updating of IARC monographs 1 to 42</i>. Lyon, France: World Health Organization.</p> <p>National Library of Medicine (NLM). 1991a. <i>Hazardous substances databank</i>. Bethesda, MD.</p> <p>National Library of Medicine (NLM). National Institute for Occupational Safety and Health (NIOSH). Department of Health and Human Services. 1991b. <i>Registry of toxic effects of chemical substances (RTECS)</i>.</p> <p>National Toxicology Program (NTP). Division of Toxicology Research and Testing. 1991. <i>Chemical Status report</i>. Research Triangle Park, NC. July.</p> <p>Occupational Safety and Health Administration (OSHA). 1990. 29 S1910.1000. July 1.</p> <p>Sax, N. I., and R. J. Lewis, Sr., eds. 1989. <i>Dangerous properties of Industrial Materials</i>. 7th ed. New York: Van Nostrand Reinhold.</p> <p>Registry of Toxic Effects of Chemical Substances Accession Number: VZ0950000.</p>	