genesisalkali

SODIUM BICARBONATE



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VERSATILITY FOR USES IN EVERYDAY LIFE

Sodium bicarbonate, often called baking soda, touches our lives every day in many different ways. Genesis Alkali sodium bicarbonate is used in a wide variety of industrial and consumer applications. Our various sodium bicarbonate grades are biodegradable, soluble in water, and environmentally friendly. The table below summarizes some of these uses and the functionality that sodium bicarbonate provides:

Industrial Applications	Food	Consumer Applications	Pharmaceutical & Health	Animal Feed
• **Abrasive blasting** - 'Soda Blasting' - abrasive agent for removal of surface coatings • **Chemical manufacturing** - Used in various reactions as a catalyst, stabilizer, and source of CO_2 • **Water treatment** - pH and buffer control; reduces levels of lead and other heavy metals; neutralizes contaminants in waste water • **Swimming pool treatment** - Buffers pool water against large swings in pH	• **Baking** - Releases CO_2 gas bubbles within the dough; basic component used in virtually all leavening processes for baked goods • **Baking soda** - Acts to buffer the dough, allowing other ingredients of the mix to react • **Candies** - Leavening system in peanut brittle and other candies • **Dry beverage mixes** - Creates CO_2 when liquid is added	• **Household cleaning products** - Odor absorbing and freshening in refrigerators, freezers, kitty litter, and carpet cleaning • **Deodorants and personal care** - Absorbing wetness and odor • **Laundry products** - Solubility and pH control; as a source of buffered, mild alkalinity	• **Antacid** - A natural antacid with excellent buffering and acid neutralization characteristics • **Effervescent** - Can be tabletized as an effervescent ingredient, not only in antacids, but also in denture cleaning products • **Toothpaste** - As a mild abrasive to remove acid forming plaque • **Hemodialysis** - Neutralizes the acids in dialysis treatment for millions of people who depend on this procedure	• **Feed grade** - For use in dairy, poultry, and swine diets • **Buffering agent** - Neutralizing and buffering the digestive system of cows, maximizing milk production • **Sodium source** - To maintain electrolyte balance, improve heat stress tolerance and litter quality

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Genesis Alkali provides the world's most reliable supply of high-quality, sodium bicarbonate to the U.S. and to strategic export markets around the world.

Product	OMRI	NSF-60	USP	Kosher	GFSI (FSSC)	Q7
Bicarb - USP #1	✓	✓	✓	✓	✓	
Bicarb - USP #2	✓	✓	✓	✓	✓	
Bicarb - USP #5	✓	✓	✓	✓	✓	
Bicarb - #1 TFF	✓	✓		✓	✓	
No. 5				✓		
No. 6		✓		✓		
Industrial	✓	✓		✓		
Pool		✓		✓		
Coarse Industrial		✓		✓		
Feed	✓	✓		✓		
Hemo Grade No. 2			✓	✓		
Hemo Grade Coarse			✓	✓		
Pharma Grade No. 2			✓	✓		✓
Pharma Grade No. 5			✓	✓		✓

- Sodium bicarbonate is available in bulk shipments or packaged in 50 lb. bags, 25 kg bags, various sized IBC's, or bulk.
- Delivery options include hopper truck, pneumatic truck, or rail car.
- Export delivery arrangements for sodium bicarbonate can be made as needed.

Our Green River facility is ISO 9001 certified and is registered with the FDA as a manufacturer of food (Food Facility Registration) and generic drugs (GDUFA). The Sodium bicarbonate plant is FSMA/CGMP/Q7 compliant and is GFSI certified (FSSC 22000).

Genesis Alkali Philadelphia Office
1735 Market Street
Philadelphia, PA 19103

Genesis Alkali Mining + Manufacturing
580 Westvaco Road
Green River, WY 82935



SAFETY DATA SHEET
Sodium Bicarbonate

SDS # : 144-55-8-8
Revision date: 2021-01-21
Format: NA
Version 3.10

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Sodium Bicarbonate, USP

Other means of identification

Product Code(s) 144-55-8

Synonyms Baking Soda, Bicarbonate of Soda

Recommended use of the chemical and restrictions on use

Recommended Use: Leavening agent, cleaner ingredient, bath salt ingredient, water softener, diaper rinse ingredient, direct food additive

Restrictions on Use: No information available

Manufacturer Address

Genesis Alkali Wyoming, LP.
1735 Market Street
Philadelphia, PA 19103
Tel: +1 877-362-2248 or +1 215-845-4500
www.alkali.genesisenergy.com

Emergency telephone number

1 307 / 872 2452 (Plant - Green River, WY)
(303) 595-9048 (Medical - U.S. - Call Collect)

For leak, fire, spill, or accident emergencies, call:
1 800 / 424-9300 (CHEMTREC - U.S.A. & Canada)
1 703 / 527 3887 (CHEMTREC - All Other Countries - Collect)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

The product contains no substances which at their given concentration, are considered to be hazardous to health

Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

Other Information

Product dust may cause mechanical eye irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula $NaHCO_3$

Chemical name	CAS-No	Weight %
Sodium Bicarbonate	144-55-8	100

Synonyms are provided in Section 1.

4. FIRST AID MEASURES

Eye Contact Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.

Skin Contact Wash skin with soap and water. Get medical attention if irritation develops and persists.

Inhalation Remove person to fresh air. If signs/symptoms continue, get medical attention.

Ingestion Never give anything by mouth to an unconscious person Get medical attention if symptoms occur

Most important symptoms and effects, both acute and delayed None known.

Indication of immediate medical attention and special treatment needed, if necessary Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific Hazards Arising from the Chemical None in particular. Not flammable

Hazardous Combustion Products None.

Explosion data

Sensitivity to Mechanical Impact Not sensitive.
Sensitivity to Static Discharge Not sensitive.

Protective equipment and precautions for firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Avoid dust formation.

Other For further clean-up instructions, call Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

Environmental Precautions Prevent material from entering into soil, ditches, sewers, waterways, and/or groundwater. See Section 12, Ecological Information for more detailed information.

Methods for Containment Vacuum or shovel waste into a drum and label contents for disposal.

Methods for cleaning up Pick up and transfer to properly labeled containers. Keep in suitable and closed containers for disposal. Dispose of waste as indicated in Section 13.

7. HANDLING AND STORAGE

Handling Use air conveying/mechanical systems for bulk transfer to storage. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment if release of airborne dust is expected.

Storage Keep in a dry place. Keep away from incompatible products (acids). Do not store with strong smelling materials.

Incompatible products Except under controlled conditions: Acids

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies Local nuisance dust standards apply

Appropriate engineering controls

Engineering measures Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields.

Skin and Body Protection Wear suitable protective clothing. Protective shoes or boots.

Hand Protection Protective gloves

Respiratory Protection In case of inadequate ventilation wear respiratory protection.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

General information If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance Crystalline, Powder
Physical State Solid

Color	White
Odor	odorless
Odor threshold	Not applicable
pH	8.3 (1% solution) @ 25 °C
Melting point/freezing point	Not applicable
Boiling Point/Range	No information available
Flash point	Not applicable
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	Negligible
Vapor density	No information available
Density	No information available
Specific gravity	2.22
Water solubility	96 g/L @ 20 °C
Solubility in other solvents	No information available
Partition coefficient	Not applicable
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidizing properties	Non-oxidizing
Molecular weight	84.01
Bulk density	66 lb/cu ft

10. STABILITY AND REACTIVITY

Reactivity None under normal use conditions.

Chemical Stability Stable.

Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid Heat. Humid air. Avoid contact with acids except under controlled conditions. Keep away from strong odor.

Incompatible materials Except under controlled conditions: Acids.

Hazardous Decomposition Products Reacts with acids to release carbon dioxide gas and heat.

11. TOXICOLOGICAL INFORMATION

Product Information

LD50 Oral	> 5,000 mg/kg (rat)
LD50 Dermal	No information available
LC50 Inhalation	> 4.74 mg/L (rat) 4.5 hr
Eye Contact	Non-irritating.
Skin Contact	Non-irritating
Sensitization	Non-sensitizing.

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity	No known effect.
Mutagenicity	Not mutagenic.
Carcinogenicity	Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH).
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Sodium Bicarbonate (144-55-8)				
Active Ingredient(s)	Duration	Species	Value	Units
Sodium bicarbonate	96 hr.	*Lepomis macrochirus* (Bluefill sunfish)	NOEC: 5,200 LC50: 7,100	mg/L
Sodium bicarbonate	48 hr. immobilization test	*Daphnia magna*	NOEC: 3,100 EC50: 4,100	mg/L
Sodium bicarbonate	96 hr.	*Oncorhynchus mykiss* (rainbow trout)	NOEC: 2,300 LC50: 7,700	mg/L

Persistence and degradability Biodegradability does not pertain to inorganic substances.

Bioaccumulation Does not bio-accumulate.

Mobility Dissociates into ions.

Other Adverse Effects None known.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). Dispose of in accordance with local regulations.

Contaminated Packaging Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

DOT	NOT REGULATED
TDG	NOT REGULATED
ICAO/IATA	NOT REGULATED
IMDG/IMO	NOT REGULATED

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic health hazard	No

Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

WARNING: *This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov .*

U.S. State Right-to-Know Regulations

This product is not listed on state right-to-know regulations

International Inventories

Component	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Sodium Bicarbonate 144-55-8 (100)	X	X	X	X	X	X	X	X

WHMIS Hazard Class Non-controlled

16. OTHER INFORMATION

NFPA	**Health Hazards** 0	**Flammability** 0	**Instability** 0	**Special Hazards** -
HMIS	**Health Hazards** 0	**Flammability** 0	**Physical hazard** 0	**Personal Protection** X

NFPA/HMIS Ratings Legend Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

Product Certifications
This product meets the chemical testing specifications defined in the USP and Food Chemicals Codex (FCC), 10th Edition and is manufactured under GMP and in compliance with FSMA. The MUL (maximum use level) for sodium bicarbonate is 100 mg/L under NSF/ANSI Standard 60.

OU Kosher Certification

NSF Certified to NSF/ANSI 60

products available OMRI LISTED For Organic Use

Revision date: 2021-01-21
Revision note Updated Company Name

Disclaimer

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Prepared By:

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End of Safety Data Sheet