



Sodium Bicarbonate

Effective Date: 05-Aug-2004

Eli Lilly and Company
Material Safety Data Sheet

Section 1 - Chemical Product and Company

Manufacturer:
Eli Lilly and Company
Lilly Corporate Center
Indianapolis, IN 46285

Manufacturer's Emergency Phone:
1-317-276-2000
CHEMTREC:
1-800-424-9300 (North America)
1-703-527-3887 (International)

Common Name: Sodium Bicarbonate

CAS Number(s): 144-55-8

EC Number: 2056-33-8

Chemical Name: Carbonic acid monosodium salt

Chemical Family: Inorganic salt

Chemical Formula: C H O₃ . Na

Molecular Weight: 84.010000

Synonym(s): Sodium bicarbonate - cell culture grade; Sodium bicarbonate tablet mix; Sodium bicarbonate tablets; Soludal; Meylon; Soda; Monosodium carbonate; Sodium hydrogen carbonate; Sodium acid carbonate; Bicarbonate of soda; Baking soda; Soda mint; NaHCO₃

Lilly Serial Number(s): 237728

Lilly Item Code(s): QA049K; QA116D; QA192M; QA241X; QA281L; QA384W; QA476V; QD400T; QD472B; TA1260; TA1264; TA1265

See attached glossary for abbreviations.

Section 2 - Composition / Information on Ingredients

| <u>Ingredient</u> | <u>CAS</u> |
|--------------------|------------|
| Sodium Bicarbonate | 144-55-8 |

Exposure Guidelines:

Sodium bicarbonate - Exposure Guideline 1500 micrograms/m³ TWA for 12 hours, 2300 micrograms/m³ TWA for 8 hours. (Lilly-established guideline)
Dow Chemical Exposure Guideline 10 mg/m³ TWA.

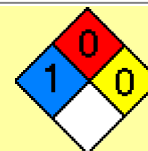
Section 3 - Hazards Identification

Appearance: White crystalline powder or granules or compressed uncoated tablets

Physical State: Solid

Odor: Odorless

Emergency Overview



Emergency Overview Effective Date: 07-Aug-2002

Lilly Laboratory Labeling Codes:

Health 1

Fire 0

Reactivity 0

Primary Physical and Health Hazards: No Significant Health Hazards.

Caution Statement: No significant health hazards have been reported for Sodium Bicarbonate.

Routes of Entry: Inhalation and skin contact.

Effects of Overexposure: Material has low acute oral or inhalation toxicity. Material may be slightly irritating to the eyes, skin, and respiratory tract. Inhalation of dust may cause coughing.

Medical Conditions Aggravated by Exposure: None known.

Carcinogenicity: No carcinogenicity data found. Not listed by IARC, NTP, ACGIH, or OSHA.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water. Get medical attention.

Skin: Remove contaminated clothing and clean before reuse. Wash all exposed areas of skin with plenty of soap and water. Get medical attention if irritation develops.

Inhalation: Move individual to fresh air. Get medical attention if breathing difficulty occurs. If not breathing, provide artificial respiration assistance (mouth-to-mouth) and call a physician immediately.

Ingestion: Call a physician or poison control center. No first aid procedures are normally required.

Section 5 - Fire Fighting Measures

Flash Point: Not applicable

UEL: Not applicable

LEL: Not applicable

Extinguishing Media: Use water, carbon dioxide, dry chemical, foam, or Halon.

Unusual Fire and Explosion Hazards: None known.

Hazardous Combustion Products: May emit toxic fumes when exposed to heat or fire.

Section 6 - Accidental Release Measures

Spills: Wear protective equipment, including eye protection, to avoid exposure (see Section 8 for specific handling precautions). Vacuum material with appropriate dust collection filter in place. Be aware of potential for dust explosion when using electrical equipment. If vacuum is not available, lightly mist material and remove by sweeping or wet wiping.

Section 7 - Handling and Storage

Lilly Warehouse Storage Category: 140X

Storage Conditions: Warehouse: 10 to 40 C (50 to 104 F). For certain items, other storage conditions may be required.

Section 8 - Exposure Controls / Personal Protection

See Section 2 for Exposure Guideline information.

Respiratory Protection: Use an approved respirator.

Eye Protection: Chemical goggles and/or face shield.

Ventilation: Laboratory fume hood or local exhaust ventilation.

Other Protective Equipment: Chemical-resistant gloves and body covering to minimize skin contact. If handled in a ventilated enclosure, as in a laboratory setting, respirator and goggles or face shield may not be required. Safety glasses are always required.

Section 9 - Physical and Chemical Properties

Appearance: White crystalline powder or granules or compressed uncoated tablets

Odor: Odorless

Boiling Point: Not applicable

Melting Point: Not applicable

Specific Gravity: 2.159

pH: 8.2 (1% solution)

Evaporation Rate: Not applicable

Water Solubility: 8.6 g/100 ml @ 20 C (68 F)

Vapor Density: Not applicable

Vapor Pressure: Not applicable

Section 10 - Stability and Reactivity

Stability: Stable at normal temperatures and pressures.

Incompatibility: May react with strong oxidizing agents (e.g., peroxides, permanganates, nitric acid, etc.) and strong acids.

Hazardous Decomposition: May emit toxic fumes when heated to decomposition.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

Acute Exposure

Oral:

Sodium bicarbonate - Rat, median lethal dose 4220 mg/kg.

Skin: No applicable information found.

Inhalation:

Sodium bicarbonate - Rat, median lethal concentration greater than 4740 mg/m³ (duration unspecified).

Skin Contact: No applicable information found.

Eye Contact:

Sodium bicarbonate - Rabbit, mild irritant

Chronic Exposure

Target Organ Effects: No applicable information found.

Reproduction:

Sodium bicarbonate - No teratogenic effects reported in rats or mice given large doses during pregnancy.

Sensitization: No applicable information found.

Mutagenicity:

Sodium bicarbonate - Negative in Ames assay.

Section 12 - Ecological Information

Ecotoxicity Data:

Sodium bicarbonate

Daphnia magna 48-hour median lethal concentration: 11.7 mmol/L to 26.3 mmol/L

Western mosquitofish 96-hour median lethal concentration: 5.6 g/L

Bluegill 96-hour median lethal concentration: 8.25 g/L

Rainbow trout median lethal concentration (duration unspecified): 7.7 g/L

Environmental Fate: No applicable information found.

Environmental Summary:

Sodium bicarbonate - This material is practically non-toxic to aquatic organisms. Material is soluble in water and may leach from soil into groundwater.

Section 13 - Disposal Considerations

Waste Disposal: Dispose of any cleanup materials and waste residue according to all applicable laws and regulations.

Section 14 - Transport Information

Regulatory Organizations:

DOT: Not Regulated

ICAO/IATA: Not Regulated

IMO: Not Regulated

Section 15 - Regulatory Information

Below is selected regulatory information chosen primarily for possible Eli Lilly and Company usage. This section is not a complete analysis or reference to all applicable regulatory information. Please consider all applicable laws and regulations for your country/state.

U.S. Regulations

Sodium bicarbonate

TSCA - Yes

CERCLA - Not on this list

SARA 302 - Not on this list

SARA 313 - Not on this list

OSHA Substance Specific - No

EU Regulations

EC Classification

Not assigned an overall EC classification.

Section 16 - Other Information

MSDS Sections Revised: Section 7.

As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS MATERIAL SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

For additional information contact:

Eli Lilly and Company
Hazard Communication
317-277-6029

GLOSSARY:

ACGIH = American Conference of Governmental Industrial Hygienists
AIHA = American Industrial Hygiene Association
BEI = Biological Exposure Index
CAS Number = Chemical Abstract Service Registry Number
CERCLA = Comprehensive Environmental Response Compensation and Liability Act (of 1980)
CHAN = Chemical Hazard Alert Notice
CHEMTREC = Chemical Transportation Emergency Center
DOT = Department of Transportation
EC = European Community
EINECS = European Inventory of Existing Chemical Substances
ELINCS = European List of New Chemical Substances
EPA = Environmental Protection Agency
HEPA = High Efficiency Particulate Air (Filter)
IARC = International Agency for Research on Cancer
ICAO/IATA = International Civil Aviation Organization/International Air Transport Association
IEG = Lilly Interim Exposure Guideline
IMO = International Maritime Organization
Kow = Octanol/Water Partition Coefficient
LEG = Lilly Exposure Guideline
LEL = Lower Explosive Limit
MSDS = Material Safety Data Sheet
MSHA = Mine Safety and Health Administration
NA = Not Applicable, except in Section 14 where NA = North America
NADA = New Animal Drug Application
NAIF = No Applicable Information Found
NCI = National Cancer Institute
NIOSH = National Institute for Occupational Safety and Health
NOS = Not Otherwise Specified
NTP = National Toxicology Program

OSHA = Occupational Safety and Health Administration
PEL = Permissible Exposure Limit (OSHA)
RCRA = Resource Conservation and Recovery Act
RQ = Reportable Quantity
RTECS = Registry of Toxic Effects of Chemical Substances
SARA = Superfund Amendments and Reauthorization Act
STEG = Lilly Short Term Exposure Guideline
STEL = Short Term Exposure Limit
TLV = Threshold Limit Value (ACGIH)
TPQ = Threshold Planning Quantity
TSCA = Toxic Substances Control Act
TWA = Time Weighted Average/8 Hours Unless Otherwise Noted
UEL = Upper Explosive Limit
UN = United Nations
WEEL = Workplace Environmental Exposure Level (AIHA)