

## SAFETY DATA SHEET PACKET

### Product Identifier

**SRM Number:** 191d  
**SRM Name:** Sodium Bicarbonate (191d-I) Sodium Carbonate (191d-II)  
(pH Standard)

### SRM Description:

A unit of SRM 191d consists of 25 g of sodium bicarbonate (191d-I) and 30 g of sodium carbonate (191d-II), each contained in its respective clear glass bottle. Attached are the individual Safety Data Sheets for the materials in this Standard Reference Material (SRM).

### SRM 191d Parts:

pH Standard Sodium Bicarbonate (191d-I)  
pH Standard Sodium Carbonate (191d-II)

### Company Information

National Institute of Standards and Technology  
Standard Reference Materials Program  
100 Bureau Drive, Stop 2300  
Gaithersburg, Maryland 20899-2300

Telephone: 301-975-2200  
FAX: 301-948-3730  
E-mail: [SRMMSDS@nist.gov](mailto:SRMMSDS@nist.gov)  
Website: <https://www.nist.gov/srm>

Emergency Telephone ChemTrec:  
1-800-424-9300 (North America)  
+1-703-527-3887 (International)

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## SAFETY DATA SHEET

### 1. SUBSTANCE AND SOURCE IDENTIFICATION

#### Product Identifier

**SRM Number:** 191d  
**SRM Name:** Sodium Bicarbonate (191d-I) Sodium Carbonate (191d-II)  
(pH Standard)  
**SRM Part:** pH Standard Sodium Bicarbonate (191d-I)  
**Other Means of Identification:** Not applicable.

#### Recommended Use of This Material and Restrictions of Use

This Standard Reference Material (SRM) consists of two components, each prepared to ensure high purity and uniformity: Sodium Bicarbonate, NaHCO<sub>3</sub> (191d-I); and Sodium Carbonate, Na<sub>2</sub>CO<sub>3</sub> (191d-II). A unit of SRM 191d consists of 25 g of sodium bicarbonate (191d-I) and 30 g of sodium carbonate (191d-II), each contained in its respective clear glass bottle. This SRM is intended for use in preparing solutions for calibrating electrodes for pH measuring systems.

#### Company Information

National Institute of Standards and Technology  
Standard Reference Materials Program  
100 Bureau Drive, Stop 2300  
Gaithersburg, Maryland 20899-2300

Telephone: 301-975-2200  
E-mail: SRMMSDS@nist.gov  
Website: <https://www.nist.gov/srm>

Emergency Telephone ChemTrec:  
1-800-424-9300 (North America)  
+1-703-527-3887 (International)

### 2. HAZARDS IDENTIFICATION

**Note:** This SDS addresses the classification for the sodium bicarbonate material, SRM 191d-I; see additional SDS for the classification for the sodium carbonate material, 191d-II.

#### Classification

**Physical Hazard:** Not classified.  
**Health Hazard:** Not classified.

#### Label Elements

**Symbol:** No symbol.

**Signal Word:** No signal word.

**Hazard Statement(s):** Not applicable.

**Precautionary Statement(s):** Not applicable.

**Hazards Not Otherwise Classified:** Not applicable.

**Ingredients(s) with Unknown Acute Toxicity:** Not applicable.

### 3. COMPOSITION AND INFORMATION ON HAZARDOUS INGREDIENTS

**Substance:** Sodium bicarbonate

**Other Designations:** Baking soda; bicarbonate of soda; carbonic acid, monosodium salt; sodium hydrogen carbonate; CHNaO<sub>3</sub>

Hazardous Component(s)	CAS Number	EC Number (EINECS)	Nominal Mass Concentration (%)
Sodium bicarbonate	144-55-8	205-633-8	100

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## 4. FIRST AID MEASURES

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### Description of First Aid Measures:

**Inhalation:** If adverse effects occur, remove to uncontaminated area. If not breathing, give artificial respiration or oxygen by qualified personnel. Seek immediate medical attention.

**Skin Contact:** Wash skin with soap and water for at least 15 minutes. Thoroughly clean and dry contaminated clothing before reuse.

**Eye Contact:** Flush eyes with water for at least 15 minutes. If necessary, seek medical attention.

**Ingestion:** If a large amount is swallowed, get medical attention.

**Most Important Symptoms/Effects, Acute and Delayed:** May cause irritation.

**Indication of any immediate medical attention and special treatment needed, if necessary:** If any of the above symptoms are present, seek medical attention if needed.

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## 5. FIRE FIGHTING MEASURES

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**Fire and Explosion Hazards:** Negligible fire hazard. See Section 9, "Physical and Chemical Properties" for flammability properties.

### Extinguishing Media:

Suitable: Use extinguishing agents appropriate for surrounding fire.

Unsuitable: None listed.

**Specific Hazards Arising from the Chemical:** None listed.

**Special Protective Equipment and Precautions for Fire-Fighters:** Avoid inhalation of material or combustion byproducts. Wear full protective clothing and NIOSH approved self-contained breathing apparatus (SCBA).

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal Precautions, Protective Equipment and Emergency Procedures:** Use suitable protective equipment; see Section 8, "Exposure Controls and Personal Protection".

**Methods and Materials for Containment and Clean up:** Collect spilled material in appropriate container for disposal.

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## 7. HANDLING AND STORAGE

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**Safe Handling Precautions:** Minimize dust generation. See Section 8, "Exposure Controls and Personal Protection".

**Storage:** Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances (see Section 10, "Stability and Reactivity").

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## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

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**Exposure Limits:** No occupational exposure limits have been established. The exposure limits for Particulates Not Otherwise Regulated are applicable.

OSHA (PEL): 15 mg/m<sup>3</sup> (TWA, total particulates)  
5 mg/m<sup>3</sup> (TWA, respirable particulates)

**Engineering Controls:** Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

**Personal Protection:** In accordance with OSHA 29 CFR 1910.132, subpart I, wear appropriate Personal Protective Equipment (PPE) to minimize exposure to this material.

**Respiratory Protection:** If workplace conditions warrant a respirator, a respiratory protection program that meets OSHA 29CFR 1910.134 must be followed. Refer to NIOSH 42 CFR 84 for applicable certified respirators.

**Eye/Face Protection:** Wear splash resistant safety goggles with a face shield. An eye wash station should be readily available near areas of use.

**Skin and Body Protection:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Chemical-resistant gloves should be worn at all times when handling chemicals.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Descriptive Properties:

<b>Appearance (physical state, color, etc.):</b>	white granules, powder
<b>Molecular Formula:</b>	NaHCO <sub>3</sub>
<b>Molar Mass (g/mol):</b>	84.01
<b>Odor:</b>	odorless
<b>Odor threshold:</b>	not available
<b>pH (solution):</b>	8.3 (0.84 % solution)
<b>Evaporation rate:</b>	not applicable
<b>Melting point/freezing point (°C):</b>	not available
<b>Relative Density (g/mL):</b>	2.159
<b>Vapor Pressure (mmHg):</b>	not applicable
<b>Vapor Density (air = 1):</b>	not applicable
<b>Viscosity (cP):</b>	not applicable
<b>Solubility(ies):</b>	water soluble (10 %); slightly soluble: alcohol
<b>Partition coefficient (n-octanol/water):</b>	not available
<b>Particle Size:</b>	not available

### Thermal Stability Properties:

<b>Autoignition Temperature (°C):</b>	not applicable
<b>Thermal Decomposition (°C):</b>	not available
<b>Initial boiling point and boiling range (°C):</b>	not applicable
<b>Explosive Limits, LEL (Volume %):</b>	not applicable
<b>Explosive Limits, UEL (Volume %):</b>	not applicable
<b>Flash Point (°C):</b>	not applicable
<b>Flammability (solid, gas):</b>	not available

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## 10. STABILITY AND REACTIVITY

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**Reactivity:** Stable at normal temperatures and pressure.

**Stability:**  Stable  Unstable

**Possible Hazardous Reactions:** None listed.

**Conditions to Avoid:** None reported.

**Incompatible Materials:** Acids, combustible materials, metals.

**Fire/Explosion Information:** See Section 5, "Fire Fighting Measures".

**Hazardous Decomposition:** Thermal decomposition will produce oxides of carbon.

**Hazardous Polymerization:**  Will Occur  Will Not Occur

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## 11. TOXICOLOGICAL INFORMATION

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**Route of Exposure:**  Inhalation  Skin  Ingestion

**Symptoms Related to the Physical, Chemical and Toxicological Characteristics:** Exposure may cause irritation, aggravate high blood pressure, and kidney disorders.

**Potential Health Effects (Acute, Chronic and Delayed):**

**Inhalation:** Dust may cause irritation.

**Skin Contact:** Prolonged contact may cause slight irritation.

**Eye Contact:** May cause irritation.

**Ingestion:** Ingestion of this material may cause irritation of the mouth, esophagus, and stomach. Carbon dioxide gas may be released causing distention, belching, and possible rupture of the stomach. Ingestion of up to 140 g per day for 3 weeks may result in fluid retention.

**Numerical Measures of Toxicity:**

**Acute Toxicity:** Not classified.

Rat, Oral LD50: 4220 mg/kg

**Skin Corrosion/Irritation:** Not classified.

Human, Skin (mild): 30 mg (3 d)

**Serious Eye Damage/Eye Irritation:** Not classified.

Rabbit, Eyes (mild): 100 mg (30 s)

**Respiratory Sensitization:** Not classified; no data available.

**Skin Sensitization:** Not classified; no data available.

**Germ Cell Mutagenicity:** Not classified; no data available.

**Carcinogenicity:** Not classified.

**Listed as a Carcinogen/Potential Carcinogen** \_\_\_\_\_ Yes        X   No

Sodium bicarbonate is not listed by IARC, NTP or OSHA as a carcinogen.

**Reproductive Toxicity:** Not classified.

Mouse, Intraperitoneal TDLo: 40 mg/kg (pregnant 7 d)

**Specific Target Organ Toxicity, Single Exposure:** Not classified; no data available.

**Specific Target Organ Toxicity, Repeated Exposure:** Not classified; no data available.

**Aspiration Hazard:** Not classified; no data available.

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**12. ECOLOGICAL INFORMATION**

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**Ecotoxicity Data:**

Fish: bluegill (*Lepomis macrochirus*) LC50 (static): 8250 mg/L to 9000 mg/L (96 h)

Invertebrate: water flea (*Daphnia magna*) EC50: 2350 mg/L (48 h)

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Other Adverse effects:** No data available.

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**13. DISPOSAL CONSIDERATIONS**

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**Waste Disposal:** Dispose of waste in accordance with all applicable federal, state, and local regulations.

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**14. TRANSPORTATION INFORMATION**

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**U.S. DOT and IATA:** Not regulated by DOT or IATA.

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## 15. REGULATORY INFORMATION

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### U.S. Regulations:

CERCLA Sections 102a/103 (40 CFR 302.4): Not regulated.

SARA Title III Section 302 (40 CFR 355.30): Not regulated.

SARA Title III Section 304 (40 CFR 355.40): Not regulated.

SARA Title III Section 313 (40 CFR 372.65): Not regulated.

OSHA Process Safety (29 CFR 1910.119): Not regulated.

SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21):

ACUTE HEALTH: No.

CHRONIC HEALTH: No.

FIRE: No.

REACTIVE: No.

PRESSURE: No.

### State Regulations:

California Proposition 65: Not listed.

**U.S. TSCA Inventory:** Listed.

**TSCA 12(b), Export Notification:** Not listed.

### Canadian Regulations:

WHMIS Information: Not provided for this material.

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## 16. OTHER INFORMATION

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**Issue Date:** 09 December 2024

**Sources:** ChemAdvisor, Inc., SDS *Sodium Bicarbonate*, 09 December 2015.

Center for Disease Control (CDC), NIOSH Pocket Guide to Chemical Hazards, *Particulates Not Otherwise Regulated*, available at <https://www.cdc.gov/niosh/npg/npgd0480.html> (accessed Dec 2024).

### Key of Acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists	NIOSH	National Institute for Occupational Safety and Health
ALI	Annual Limit on Intake	NIST	National Institute of Standards and Technology
CAS	Chemical Abstracts Service	NRC	Nuclear Regulatory Commission
CEN	European Committee for Standardization	NTP	National Toxicology Program
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	OSHA	Occupational Safety and Health Administration
CFR	Code of Federal Regulations	PEL	Permissible Exposure Limit
CPSU	Coal Mine Dust Personal Sample Unit	RCRA	Resource Conservation and Recovery Act
DOT	Department of Transportation	REL	Recommended Exposure Limit
EC50	Effective Concentration, 50 %	RM	Reference Material
EINECS	European Inventory of Existing Commercial Chemical Substances	RQ	Reportable Quantity
EPCRA	Emergency Planning and Community Right-to-Know Act	RTECS	Registry of Toxic Effects of Chemical Substances
IARC	International Agency for Research on Cancer	SARA	Superfund Amendments and Reauthorization Act
IATA	International Air Transport Association	SCBA	Self-Contained Breathing Apparatus
IDLH	Immediately Dangerous to Life and Health	SRM	Standard Reference Material
ISO	International Organization for Standardization	STEL	Short Term Exposure Limit
LC50	Lethal Concentration, 50 %	TDLo	Toxic Dose Low
LD50	Lethal Dose, 50 %	TLV	Threshold Limit Value
LEL	Lower Explosive Limit	TPQ	Threshold Planning Quantity
MSDS	Material Safety Data Sheet	TSCA	Toxic Substances Control Act
NFPA	National Fire Protection Association	TWA	Time Weighted Average
MSHA	Mine Safety and Health Administration	UEL	Upper Explosive Limit
		WHMIS	Workplace Hazardous Materials Information System

**Disclaimer:** The NIST SDS information is specific to the NIST product and is believed to be correct, based upon our current knowledge. The SDS may not necessarily be all inclusive and should be used only as a guide. NIST does not guarantee the accuracy or completeness of this information. The only official source for specific values and uncertainties is the certificate or report.

Users of this SRM should ensure that the SDS in their possession is current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; e-mail [srmmsds@nist.gov](mailto:srmmsds@nist.gov); or via the Internet at <https://www.nist.gov/srm>.



## SAFETY DATA SHEET

### 1. SUBSTANCE AND SOURCE IDENTIFICATION

#### Product Identifier

**SRM Number:** 191d  
**SRM Name:** Sodium Bicarbonate (191d-I) Sodium Carbonate (191d-II)  
(pH Standard)  
**SRM Part:** pH Standard Sodium Carbonate (191d-II)  
**Other Means of Identification:** Not applicable.

#### Recommended Use of This Material and Restrictions of Use

This Standard Reference Material (SRM) consists of two components, each prepared to ensure high purity and uniformity: Sodium Bicarbonate, NaHCO<sub>3</sub> (191d-I); and Sodium Carbonate, Na<sub>2</sub>CO<sub>3</sub> (191d-II). A unit of SRM 191d consists of 25 g of sodium bicarbonate (191d-I) and 30 g of sodium carbonate (191d-II), each contained in its respective clear glass bottle. This SRM is intended for use in preparing solutions for calibrating electrodes for pH measuring systems. This SDS addresses the sodium carbonate material, SRM 191d-II.

#### Company Information

National Institute of Standards and Technology  
Standard Reference Materials Program  
100 Bureau Drive, Stop 2300  
Gaithersburg, Maryland 20899-2300

Telephone: 301-975-2200  
E-mail: SRMMSDS@nist.gov  
Website: <https://www.nist.gov/srm>

Emergency Telephone ChemTrec:  
1-800-424-9300 (North America)  
+1-703-527-3887 (International)

### 2. HAZARDS IDENTIFICATION

**Note:** This SDS addresses the classification for the sodium carbonate material, 191d-II; see additional SDS for the classification for the sodium bicarbonate material, SRM 191d-I.

#### Classification

**Physical Hazard:** Not classified.  
**Health Hazard:** Serious Eye Damage/Eye Irritation Category 2A

#### Label Elements

##### Symbol



**Signal Word:** WARNING

#### Hazard Statement(s):

H319 Causes serious eye irritation.

#### Precautionary Statement(s):

P264 Wash hands thoroughly after handling.

P280 Wear eye protection.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical attention.

**Hazards Not Otherwise Classified:** Not applicable.

**Ingredients(s) with Unknown Acute Toxicity:** Not applicable.

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### 3. COMPOSITION AND INFORMATION ON HAZARDOUS INGREDIENTS

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**Substance:** Sodium carbonate

**Other Designations:** Bisodium carbonate; carbonic acid, disodium salt; soda ash; calcined soda

Hazardous Component(s)	CAS Number	EC Number (EINECS)	Nominal Mass Concentration (%)
Sodium carbonate	497-19-8	207-838-8	100

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### 4. FIRST AID MEASURES

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**Description of First Aid Measures:**

**Inhalation:** If adverse effects occur, remove to uncontaminated area. If not breathing, give artificial respiration or oxygen by qualified personnel. Seek immediate medical attention.

**Skin Contact:** Wash skin with soap and water for at least 15 minutes. Thoroughly clean and dry contaminated clothing before reuse.

**Eye Contact:** Flush eyes with water for at least 15 minutes. If necessary, seek medical attention.

**Ingestion:** If swallowed, drink plenty of water, do not induce vomiting. Get immediate medical attention.

**Most Important Symptoms/Effects, Acute and Delayed:** May irritate the eyes and skin.

**Indication of any immediate medical attention and special treatment needed, if necessary:** If any of the above symptoms are present, seek medical attention if needed.

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### 5. FIRE FIGHTING MEASURES

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**Fire and Explosion Hazards:** Negligible fire hazard. See Section 9, "Physical and Chemical Properties" for flammability properties.

**Extinguishing Media:**

Suitable: Regular dry chemical, carbon dioxide, water, regular foam.

Unsuitable: None listed.

**Specific Hazards Arising from the Chemical:** None listed.

**Special Protective Equipment and Precautions for Fire-Fighters:** Avoid inhalation of material or combustion byproducts. Wear full protective clothing and NIOSH approved self-contained breathing apparatus (SCBA).

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### 6. ACCIDENTAL RELEASE MEASURES

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**Personal Precautions, Protective Equipment and Emergency Procedures:** Use suitable protective equipment; see Section 8, "Exposure Controls and Personal Protection".

**Methods and Materials for Containment and Clean up:** Collect spilled material in appropriate container for disposal.

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### 7. HANDLING AND STORAGE

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**Safe Handling Precautions:** Minimize dust generation. See Section 8, "Exposure Controls and Personal Protection".

**Storage:** Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances (see Section 10, "Stability and Reactivity").

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### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

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**Exposure Limits:** No occupational exposure limits have been established. The exposure limits for Particulates Not Otherwise Regulated are applicable.

OSHA (PEL): 15 mg/m<sup>3</sup> (TWA, total particulates)

5 mg/m<sup>3</sup> (TWA, respirable particulates)

**Engineering Controls:** Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

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**Personal Protection:** In accordance with OSHA 29 CFR 1910.132, subpart I, wear appropriate Personal Protective Equipment (PPE) to minimize exposure to this material.

**Respiratory Protection:** If workplace conditions warrant a respirator, a respiratory protection program that meets OSHA 29CFR 1910.134 must be followed. Refer to NIOSH 42 CFR 84 for applicable certified respirators.

**Eye/Face Protection:** Wear splash resistant safety goggles with a face shield. An eye wash station should be readily available near areas of use.

**Skin and Body Protection:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Chemical-resistant gloves should be worn at all times when handling chemicals.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Descriptive Properties

<b>Appearance (physical state, color, etc.):</b>	colorless to white, hygroscopic, crystalline powder
<b>Molecular Formula:</b>	Na <sub>2</sub> CO <sub>3</sub>
<b>Molar Mass (g/mol):</b>	105.99
<b>Odor:</b>	odorless
<b>Odor threshold:</b>	not available
<b>pH (solution):</b>	11.5 (1 % aqueous solution)
<b>Evaporation rate:</b>	not applicable
<b>Melting point/freezing point (°C):</b>	851 (1564 °F)
<b>Specific Gravity (water = 1):</b>	2.536
<b>Vapor Pressure (mmHg):</b>	not applicable
<b>Vapor Density (air = 1):</b>	not applicable
<b>Viscosity (cP):</b>	not applicable
<b>Solubility(ies):</b>	water solubility 7.1 % at 0 °C; soluble: glycerol; insoluble in alcohol and acetone
<b>Partition coefficient (n-octanol/water):</b>	not available
<b>Particle Size:</b>	not available

### Thermal Stability Properties

<b>Autoignition Temperature (°C):</b>	not applicable
<b>Thermal Decomposition (°C):</b>	not available
<b>Initial boiling point and boiling range:</b>	decomposes
<b>Explosive Limits, LEL (Volume %):</b>	not applicable
<b>Explosive Limits, UEL (Volume %):</b>	not applicable
<b>Flash Point (°C):</b>	not applicable
<b>Flammability (solid, gas):</b>	not available

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## 10. STABILITY AND REACTIVITY

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**Reactivity:** Stable at normal temperatures and pressure.

**Stability:**  X  Stable   Unstable

**Possible Hazardous Reactions:** May react with evolution of heat on contact with water.

**Conditions to Avoid:** Avoid heat, flames, sparks and other sources of ignition. Avoid generating dust. Keep out of water supplies and sewers.

**Incompatible Materials:** Acids, metals, combustible materials, halogens, reducing agents.

**Fire/Explosion Information:** See Section 5, "Fire Fighting Measures".

**Hazardous Decomposition:** Thermal decomposition will produce oxides of sodium and carbon.

**Hazardous Polymerization:**   Will Occur  X  Will Not Occur

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## 11. TOXICOLOGICAL INFORMATION

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**Route of Exposure:**      X   Inhalation      X   Skin      X   Ingestion

**Symptoms Related to the Physical, Chemical and Toxicological Characteristics:** May irritate the eyes and skin.

**Potential Health Effects (Acute, Chronic and Delayed):**

**Inhalation:** Dusts or vapors may cause mucous membrane irritation with coughing, shortness of breath, and gastrointestinal changes. Repeated or prolonged exposure may cause perforation of the nasal septum.

**Skin Contact:** Acute exposure of to the skin may cause irritation and redness. Concentrated solutions may cause irritation, blistering, or burns. Repeated or prolonged exposure may cause dermatitis and possible "soda ulcers" of the hands and wrists. Sensitivity reactions may occur from repeated exposures.

**Eye Contact:** Acute exposure may cause severe irritation, redness, pain, and blurred vision. In solution, sodium carbonate is sufficiently alkaline to damage the corneal epithelium, but if promptly flushed from the eyes with water, is unlikely to cause permanent damage. Repeated and prolonged exposure to irritants in general may cause conjunctivitis.

**Ingestion:** Sodium carbonate is used as a general food additive and no adverse effects have been reported from exposure to small amounts. Ingestion of large amounts may cause corrosion of the gastric mucosa with sore throat and pain. It may cause gastrointestinal disturbances such as nausea, vomiting, abdominal pain, and diarrhea. The estimated lethal human dose, due to circulatory collapse, is approximately 30 g.

**Numerical Measures of Toxicity:**

**Acute Toxicity:** Not classified.

Rat, Inhalation LC50: 2300 mg/m<sup>3</sup> (2 h)

Rat, Oral LD50: 4090 mg/kg

Mouse, Dermal LD50: 2210 mg/kg

**Skin Corrosion/Irritation:** Not classified.

Rabbit, Dermal (mild): 500 mg (24 h)

**Serious Eye Damage/Eye Irritation:** Category 2A

Rabbit, Eyes (mild): 100 mg (rinse 30 s)

Rabbit, Eyes (moderate): 100 mg (24 h)

Rabbit, Eyes (severe): 50 mg

**Respiratory Sensitization:** Not classified; no data available.

**Skin Sensitization:** Not classified; no data available.

**Germ Cell Mutagenicity:** Not classified; no data available.

**Carcinogenicity:** Not classified.

**Listed as a Carcinogen/Potential Carcinogen**                           Yes                      X   No

Sodium carbonate is not listed by IARC, NTP or OSHA as a carcinogen.

**Reproductive Toxicity:** Not classified.

Mouse, Intrauterine TDLo: 84 800 ng/kg (pregnant 4 d)

**Specific Target Organ Toxicity, Single Exposure:** Not classified; no data available.

**Specific Target Organ Toxicity, Repeated Exposure:** Not classified; no data available.

**Aspiration Hazard:** Not classified; no data available.

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## 12. ECOLOGICAL INFORMATION

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**Ecotoxicity Data:**

Fish Toxicity: bluegill (*Lepomis macrochirus*) LC50 (static): 300 mg/L (96 h)

Invertebrate: water flea (*Daphnia magna*) EC50 (static): 265 mg/L (48 h)

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** No bioaccumulation.

**Mobility in Soil:** No data available.

**Other Adverse effects:** No data available.

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### 13. DISPOSAL CONSIDERATIONS

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**Waste Disposal:** Dispose of waste in accordance with all applicable federal, state, and local regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262, Hazardous Waste Number: D003.

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### 14. TRANSPORTATION INFORMATION

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**U.S. DOT and IATA:** Not regulated by DOT or IATA.

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### 15. REGULATORY INFORMATION

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**U.S. Regulations:**

CERCLA Sections 102a/103 (40 CFR 302.4): Not regulated.

SARA Title III Section 302 (40 CFR 355.30): Not regulated.

SARA Title III Section 304 (40 CFR 355.40): Not regulated.

SARA Title III Section 313 (40 CFR 372.65): Not regulated.

OSHA Process Safety (29 CFR 1910.119): Not regulated.

SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21):

ACUTE HEALTH:	Yes.
CHRONIC HEALTH:	No.
FIRE:	No.
REACTIVE:	Yes.
PRESSURE:	No.

**State Regulations:**

California Proposition 65: Not listed.

**U.S. TSCA Inventory:** Listed.

**TSCA 12(b), Export Notification:** Not listed.

**Canadian Regulations:**

WHMIS Information: Not provided for this material.

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### 16. OTHER INFORMATION

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**Issue Date:** 09 December 2024

**Sources:** ChemAdvisor, Inc., SDS *Sodium Carbonate*, 09 December 2015.

Center for Disease Control (CDC), NIOSH Pocket Guide to Chemical Hazards, *Particulates Not Otherwise Regulated*, 04 April 2011, available at <https://www.cdc.gov/niosh/npg/npgd0480.html> (accessed Dec 2024).

PubChem Database, National Library of Medicine, *Sodium Carbonate* CAS# 497-19-8, Full Record, available at <https://pubchem.ncbi.nlm.nih.gov/compound/10340> (accessed Dec 2024).

### Key of Acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists	NIOSH	National Institute for Occupational Safety and Health
ALI	Annual Limit on Intake	NIST	National Institute of Standards and Technology
CAS	Chemical Abstracts Service	NRC	Nuclear Regulatory Commission
CEN	European Committee for Standardization	NTP	National Toxicology Program
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	OSHA	Occupational Safety and Health Administration
CFR	Code of Federal Regulations	PEL	Permissible Exposure Limit
CPSU	Coal Mine Dust Personal Sample Unit	RCRA	Resource Conservation and Recovery Act
DOT	Department of Transportation	REL	Recommended Exposure Limit
EC50	Effective Concentration, 50 %	RM	Reference Material
EINECS	European Inventory of Existing Commercial Chemical Substances	RQ	Reportable Quantity
EPCRA	Emergency Planning and Community Right-to-Know Act	RTECS	Registry of Toxic Effects of Chemical Substances
IARC	International Agency for Research on Cancer	SARA	Superfund Amendments and Reauthorization Act
IATA	International Air Transport Association	SCBA	Self-Contained Breathing Apparatus
IDLH	Immediately Dangerous to Life and Health	SRM	Standard Reference Material
ISO	International Organization for Standardization	STEL	Short Term Exposure Limit
LC50	Lethal Concentration, 50 %	TDLo	Toxic Dose Low
LD50	Lethal Dose, 50 %	TLV	Threshold Limit Value
LEL	Lower Explosive Limit	TPQ	Threshold Planning Quantity
MSDS	Material Safety Data Sheet	TSCA	Toxic Substances Control Act
NFPA	National Fire Protection Association	TWA	Time Weighted Average
MSHA	Mine Safety and Health Administration	UEL	Upper Explosive Limit
		WHMIS	Workplace Hazardous Materials Information System

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