

# Sodium hydrogen carbonate

## Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022

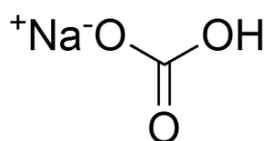
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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance  
Substance name : Sodium hydrogen carbonate  
EC-No. : 205-633-8  
CAS-No. : 144-55-8  
Type of product : Pure substance, Hygroscopic substance. Preventive measures apply to the substance in dry state only  
Formula :  $\text{CHNaO}_3$   
Chemical structure :



Synonyms : ALKAKARB / baking soda / BICAR / bicarbonate of soda / C: Natron (= sodium bicarbonate) / carbonic acid monosodium salt / COL EVAC / colevac / DESSIKARB / JUSONIN / monosodium carbonate / NEUT / SODA BICARB / SODA MINT / sodium hydrogen carbonate / Sodium bicarbonate

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory Chemicals  
Reagents  
Fire extinguishing medium  
Food industry: auxiliary substance

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

ISOLAB Laborgeräte GmbH  
Am Dillhof 2 - 63863 Eschau / GERMANY  
Tel: + 49 93 74 / 978 55-0  
Fax: +49 93 74 / 978 55-29  
[prodsafe@isolab.de](mailto:prodsafe@isolab.de)

#### 1.4. Emergency telephone number

| Country | Organisation/Company  | Address                           | Emergency number | Comment |
|---------|---|-----------------------------------|------------------|---------|
| Germany | Giftnotruf der Charité<br>CBF, Haus VIII (Wirtschaftsgebäude), UG | Hindenburgdamm 30<br>12203 Berlin | +49 30 19240     |         |

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

#### 2.3. Other hazards

No additional information available

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

| Name                     | Product identifier                       | %   |
|--------------------------|--|-----|
| Sodium hydrogencarbonate | (CAS-No.) 144-55-8<br>(EC-No.) 205-633-8 | 100 |

Full text of H-statements: see section 16

#### 3.2. Mixtures

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

|                                       |   |
|---------------------------------------|---|
| First-aid measures general            | : If you feel unwell, seek medical advice.  |
| First-aid measures after inhalation   | : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.   |
| First-aid measures after skin contact | : Rinse with water. Soap may be used. Consult a doctor/medical service.   |
| First-aid measures after eye contact  | : Rinse with water. Take victim to a doctor/medical service if irritation persists. Take victim to an ophthalmologist if irritation persists.   |
| First-aid measures after ingestion    | : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Call Poison Information Centre ( <a href="http://www.big.be/antigif.htm">www.big.be/antigif.htm</a> ). Consult a doctor/medical service if you feel unwell. |

#### 4.2. Most important symptoms and effects, both acute and delayed

|                                     |  |
|-------------------------------------|--|
| Symptoms/effects after inhalation   | : AFTER INHALATION OF DUST: Slight irritation. EXPOSURE TO HIGH CONCENTRATIONS: Coughing.  |
| Symptoms/effects after skin contact | : Slight irritation.   |
| Symptoms/effects after eye contact  | : Slight irritation.   |
| Symptoms/effects after ingestion    | : AFTER ABSORPTION OF HIGH QUANTITIES: ON CONTINUOUS EXPOSURE/CONTACT: Vomiting. Abdominal pain. Diarrhoea. Dizziness. Change in the haemogramme/blood composition.                            |
| Chronic symptoms                    | : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Nausea. Headache. Dizziness. Change in the haemogramme/blood composition. Affection of the renal tissue. Red skin. Tingling/irritation of the skin. |

#### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

### SECTION 5: Fire-fighting measures

#### 5.1. Extinguishing media

|                                |   |
|--------------------------------|---|
| Suitable extinguishing media   | : Adapt extinguishing media to the environment. |
| Unsuitable extinguishing media | : No unsuitable extinguishing media known.      |

#### 5.2. Special hazards arising from the substance or mixture

|                  |   |
|------------------|---|
| Fire hazard      | : DIRECT FIRE HAZARD. Non combustible.  |
| Explosion hazard | : DIRECT EXPLOSION HAZARD. Not applicable. INDIRECT EXPLOSION HAZARD. Not applicable. |

#### 5.3. Advice for firefighters

|                                |  |
|--------------------------------|--|
| Precautionary measures fire    | : Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows. |
| Firefighting instructions      | : Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat.    |
| Protection during firefighting | : Heat/fire exposure: compressed air/oxygen apparatus.   |

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

|                                  |   |
|----------------------------------|---|
| Protective equipment             | : Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. See "Material-Handling" to select protective clothing. |
| Emergency procedures             | : Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes.                            |
| Measures in case of dust release | : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.                                       |

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### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

No additional information available

### 6.3. Methods and material for containment and cleaning up

- For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.
- Methods for cleaning up : Stop dust cloud by humidifying with water. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Wash down leftovers with plenty of water. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Comply with the legal requirements. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Avoid raising dust. Observe normal hygiene standards. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

### 7.2. Conditions for safe storage, including any incompatibilities

- Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.
- Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) acids. water/moisture.
- Storage area : Store in a dry area. Meet the legal requirements.
- Special rules on packaging : SPECIAL REQUIREMENTS: hermetical. watertight. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
- Packaging materials : SUITABLE MATERIAL: stainless steel. nickel. MATERIAL TO AVOID: No data available.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| Sodium bicarbonate (144-55-8) |                                  |   |
|-------------------------------|----------------------------------|---|
| Latvia                        | Local name                       | Nātrija hidroģēnkarbonāts (dzeramāsoda)   |
| Latvia                        | OEL TWA (mg/m <sup>3</sup> )     | 5 mg/m <sup>3</sup>                       |
| Russian Federation            | Local name                       | Натрий гидрокарбонат                      |
| Russian Federation            | OEL Ceiling (mg/m <sup>3</sup> ) | 5 mg/m <sup>3</sup>                       |
| Russian Federation            | Remark (RU)                      | 3 класс опасности - опасное; а (аэрозоль) |

### 8.2. Exposure controls

#### Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: butyl rubber. PVC. GIVE LESS RESISTANCE: No data available. GIVE POOR RESISTANCE: No data available

#### Hand protection:

Gloves

#### Eye protection:

Safety glasses. In case of dust production: protective goggles

#### Skin and body protection:

Protective clothing

#### Respiratory protection:

Dust production: dust mask with filter type P1

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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|  |   |
|--|---|
| Physical state                             | : Solid   |
| Appearance                                 | : Crystalline solid. Crystalline powder. Grains.                                  |
| Molecular mass                             | : 84.01 g/mol   |
| Colour                                     | : White.  |
| Odour                                      | : Odourless.  |
| Odour threshold                            | : No data available   |
| pH   | : 8.6 (50 g/l, H <sub>2</sub> O, 20 °C)   |
| Relative evaporation rate (butylacetate=1) | : No data available   |
| Melting point                              | : 270 °C (decomposition)  |
| Freezing point                             | : No data available   |
| Boiling point                              | : Not applicable  |
| Flash point                                | : Not applicable  |
| Auto-ignition temperature                  | : No data available   |
| Decomposition temperature                  | : 165 °C  |
| Flammability (solid, gas)                  | : No data available   |
| Vapour pressure                            | : No data available   |
| Relative vapour density at 20 °C           | : No data available   |
| Relative density                           | : No data available   |
| Density                                    | : 2.22 g/cm <sup>3</sup> (20 °C)  |
| Solubility                                 | : Moderately soluble in water. Substance sinks in water.<br>Water: 96 g/l (20 °C) |
| Log Pow                                    | : -4.01 (Estimated value)   |
| Viscosity, kinematic                       | : No data available   |
| Viscosity, dynamic                         | : No data available   |
| Explosive properties                       | : No data available   |
| Oxidising properties                       | : No data available   |
| Explosive limits                           | : Not applicable  |

#### 9.2. Other information

|                         |  |
|-------------------------|--|
| Minimum ignition energy | : Not applicable                             |
| VOC content             | : Not applicable (inorganic)                 |
| Other properties        | : Hygroscopic. Substance has basic reaction. |

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Decomposes slowly in moist air and on exposure to temperature rise: release of harmful gases/vapours (carbon dioxide). Reacts violently with (some) acids.

#### 10.2. Chemical stability

Hygroscopic.

#### 10.3. Possibility of hazardous reactions

No additional information available

#### 10.4. Conditions to avoid

No additional information available

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

No additional information available

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

|                |                  |
|----------------|------------------|
| Acute toxicity | : Not classified |
|----------------|------------------|

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|                                      |            |
|--------------------------------------|------------|
| <b>Sodium bicarbonate (144-55-8)</b> |            |
| LD50 oral rat                        | 4220 mg/kg |

|                                   |   |
|-----------------------------------|---|
| Skin corrosion/irritation         | : Not classified<br>pH: 8 (5 %; 8.4; 9.3 %) |
| Serious eye damage/irritation     | : Not classified<br>pH: 8 (5 %; 8.4; 9.3 %) |
| Respiratory or skin sensitisation | : Not classified                            |
| Germ cell mutagenicity            | : Not classified                            |
| Carcinogenicity                   | : Not classified                            |
| Reproductive toxicity             | : Not classified                            |
| STOT-single exposure              | : Not classified                            |
| STOT-repeated exposure            | : Not classified                            |
| Aspiration hazard                 | : Not classified                            |

## SECTION 12: Ecological information

### 12.1. Toxicity

|                   |   |
|-------------------|---|
| Ecology - general | : Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.  |
| Ecology - air     | : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006). TA-Luft Klasse 5.2.1. |
| Ecology - water   | : Not harmful to fishes (LC50(96h) >1000 mg/l). Not harmful to invertebrates (Daphnia) (EC50 (48h) > 1000 mg/l). Harmful to bacteria.   |

### 12.2. Persistence and degradability

|                                      |   |
|--------------------------------------|---|
| <b>Sodium bicarbonate (144-55-8)</b> |   |
| Persistence and degradability        | Biodegradability: not applicable. No (test)data on mobility of the substance available. |
| ThOD                                 | Not applicable (inorganic)  |

### 12.3. Bioaccumulative potential

|                                      |                         |
|--------------------------------------|-------------------------|
| <b>Sodium bicarbonate (144-55-8)</b> |                         |
| Log Pow                              | -4.01 (Estimated value) |
| Bioaccumulative potential            | Not bioaccumulative.    |

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

|  |  |
|--|--|
| Product/Packaging disposal recommendations | : Remove waste in accordance with local and/or national regulations. Recycle/reuse. Precipitate/make insoluble. Remove to an authorized dump. Do not discharge into the sewer. Do not discharge into surface water. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants. |
| Additional information                     | : LWCA (the Netherlands): KGA category 05. Can be considered as non hazardous waste according to Directive 2008/98/EC.   |
| European List of Waste (LoW) code          | : 06 03 14 - solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13   |

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

| ADR                    | IMDG           | IATA           | ADN            | RID            |
|------------------------|----------------|----------------|----------------|----------------|
| <b>14.1. UN number</b> |                |                |                |                |
| Not applicable         | Not applicable | Not applicable | Not applicable | Not applicable |

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| ADR                                     | IMDG           | IATA           | ADN            | RID            |
|---|----------------|----------------|----------------|----------------|
| <b>14.2. UN proper shipping name</b>    |                |                |                |                |
| Not applicable                          | Not applicable | Not applicable | Not applicable | Not applicable |
| Not applicable                          | Not applicable | Not applicable | Not applicable | Not applicable |
| <b>14.3. Transport hazard class(es)</b> |                |                |                |                |
| Not applicable                          | Not applicable | Not applicable | Not applicable | Not applicable |
| Not applicable                          | Not applicable | Not applicable | Not applicable | Not applicable |
| <b>14.4. Packing group</b>              |                |                |                |                |
| Not applicable                          | Not applicable | Not applicable | Not applicable | Not applicable |
| <b>14.5. Environmental hazards</b>      |                |                |                |                |
| Not applicable                          | Not applicable | Not applicable | Not applicable | Not applicable |
| No supplementary information available  |                |                |                |                |

### 14.6. Special precautions for user

#### - Overland transport

Not applicable

#### - Transport by sea

Not applicable

#### - Air transport

Not applicable

#### - Inland waterway transport

Not applicable

#### - Rail transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Sodium bicarbonate is not on the REACH Candidate List

Sodium bicarbonate is not on the REACH Annex XIV List

VOC content : Not applicable (inorganic)

#### 15.1.2. National regulations

##### Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 1 or 2; ID No. 374)

WGK remark : Classification water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 2)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

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NIET-limitatieve lijst van voor de voortplanting : The substance is not listed  
giftige stoffen – Ontwikkeling

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Abbreviations and acronyms:

|       |   |
|-------|---|
| ADN   | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways   |
| ADR   | European Agreement concerning the International Carriage of Dangerous Goods by Road               |
| ATE   | Acute Toxicity Estimate   |
| BCF   | Bioconcentration factor   |
| CLP   | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008                       |
| EC50  | Median effective concentration  |
| IARC  | International Agency for Research on Cancer   |
| IATA  | International Air Transport Association   |
| IMDG  | International Maritime Dangerous Goods  |
| LC50  | Median lethal concentration   |
| LD50  | Median lethal dose  |
| PBT   | Persistent Bioaccumulative Toxic  |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| RID   | Regulations concerning the International Carriage of Dangerous Goods by Rail                      |
| SDS   | Safety Data Sheet   |
| vPvB  | Very Persistent and Very Bioaccumulative  |

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

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*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*