

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

SODIUM BICARBONATE

Version 5.2

Print Date 2020/09/02

Revision date / valid from 2020/09/02

MSDS code: MSBC010

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

1.1. Product identifier

Trade name : SODIUM BICARBONATE
Substance name : Sodium hydrogencarbonate
CAS-No. : 144-55-8
EC-No. : 205-633-8
EU REACH-Reg. No. : 01-2119457606-32-xxxx

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

Use of the Substance/Mixture : Agents adsorbing and absorbing gases or liquids, Flame retardants, Foaming (blowing) agents, Food/ feedstuff additives, Laboratory chemicals, Odour agents, Pharmaceutical substance, Processing aid

Uses advised against : At this moment we have not identified any uses advised against

1.3. Details of the supplier of the safety data sheet

Company : Brenntag UK Limited
Alpha House, Lawnswood Business Park
GB LS16 6QY Leeds
Telephone : +44 (0) 113 3879 200
Telefax : +44 (0) 113 3879 280
E-mail address : msds@brenntag.co.uk

1.4. Emergency telephone number

Emergency telephone number : Emergency only telephone number (open 24 hours):
+44 (0) 1865 407333 (N.C.E.C. Culham)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008.

Most important adverse effects

Human Health : See section 11 for toxicological information.

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Physical and chemical hazards : See section 9/10 for physicochemical information.
 Potential environmental effects : See section 12 for environmental information.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is not labeled as dangerous according to Regulation (EC) No. 1272/2008.

Additional Labelling:

Handle in accordance with good industrial hygiene and safety practice.

2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5.

SECTION 3: Composition/information on ingredients

3.1. Substances

Remarks : No dangerous ingredients according to Regulation (EC) No. 1907/2006

Non-hazardous component

Chemical name	Identification Number	Amount [%]
Sodium hydrogencarbonate	CAS-No. : 144-55-8	<= 100
	EC-No. 205-633-8	
	REACH-Reg. No. 01-2119457606-32-xxxx	

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice : No special precautions required.
 If inhaled : Remove to fresh air. If symptoms persist, call a physician.
 In case of skin contact : Wash off with soap and water. If skin irritation persists, call a physician.
 In case of eye contact : Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.

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If swallowed : Rinse mouth with water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If symptoms persist, call a physician.

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

Symptoms : See Section 11 for more detailed information on health effects and symptoms.

Effects : Health injuries are not known or expected under normal use. See Section 11 for more detailed information on health effects and symptoms.

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

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media : High volume water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting : Incomplete combustion may form toxic pyrolysis products.
Hazardous combustion products : Carbon monoxide, Carbon dioxide (CO₂)

5.3. Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Choose protective equipment according to size of fire.
Further advice : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions : Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin and eyes.

6.2. Environmental precautions

Environmental : Do not flush into surface water or sanitary sewer system.

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precautions : Avoid subsoil penetration.

6.3. Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up : Use mechanical handling equipment. Keep in suitable, closed containers for disposal.

Further information : Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on personal protective equipment.
See Section 13 for waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling : Keep container tightly closed. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice.

Hygiene measures : Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Further information on storage conditions : Keep tightly closed in a dry and cool place. Avoid moisture. Store away from acids.

Advice on common storage : Keep away from food, drink and animal feedingstuffs.

Suitable packaging materials : Paper bags, Polyethylene

7.3. Specific end use(s)

Specific use(s) : No information available.

SECTION 8: Exposure controls/personal protection

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8.1. Control parameters

Other Occupational Exposure Limit Values

(Additional) Information : Contains no substances with occupational exposure limit values.
Contains no substances with occupational exposure limit values.

Component:	Sodium hydrogencarbonate	CAS-No. 144-55-8
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Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)

no data available :

Predicted No Effect Concentration (PNEC)

no data available :

8.2. Exposure controls

Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection

Advice : Required, if exposure limit is exceeded (e.g. OEL).
Respiratory protection complying with EN 141.
Half mask with a particle filter P2 (EN 143)

Hand protection

Advice : Protective gloves complying with EN 374.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.
Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Protective gloves should be replaced at first signs of wear.

Eye protection

Advice : Safety goggles
Equipment should conform to EN 166

Skin and body protection

Advice : Protective work clothing

Environmental exposure controls

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General advice : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Form	: Crystalline powder
Colour	: white
Odour	: odourless
Odour Threshold	: no data available
pH	: 8.4 (8.4 g/l ; 25 °C)8.6 (52 g/l ; 25 °C)
Melting point/range	: > 50 °C Decomposes below the melting point.
Boiling point/boiling range	: no data available
Flash point	: Not applicable
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour pressure	: no data available
Relative vapour density	: no data available
Relative density	: 2.2 (20 °C)
Density	: 2.21 - 2.23 g/cm ³ (20 °C)
Water solubility	: 69 g/l (0 °C) 93 g/l (20 °C) 165 g/l (60 °C)
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: > 50 °C
Viscosity, dynamic	: no data available
Explosivity	: no data available
Oxidizing properties	: not oxidising

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9.2. Other information

Bulk density : 500 - 1,300 kg/m³

SECTION 10: Stability and reactivity

10.1. Reactivity

Advice : No decomposition if stored and applied as directed.

10.2. Chemical stability

Advice : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : No information available.

10.4. Conditions to avoid

Conditions to avoid : Avoid moisture.
Thermal decomposition : >50 °C

10.5. Incompatible materials

Materials to avoid : Acids, Alkali metals

10.6. Hazardous decomposition products

Hazardous decomposition products : No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Data for the product

Irritation

Skin

Result : Prolonged skin contact may cause skin irritation.

Component:

Sodium hydrogencarbonate

CAS-No. 144-55-8

Acute toxicity

Oral

LD50 : > 4000 mg/kg (Rat)

SODIUM BICARBONATE**Inhalation**

LC50 : > 4.74 mg/l (Rat)

Dermal

Study scientifically not justified.

Irritation**Skin**

Result : No skin irritation (Rabbit)

Eyes

Result : No eye irritation (Rabbit)

Sensitisation

Result : Study scientifically not justified.

CMR effects**CMR Properties**

Carcinogenicity : Animal testing did not show any carcinogenic effects.
Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Teratogenicity : Animal testing did not show any effects on foetal development.
Reproductive toxicity : Animal testing did not show any effects on fertility.

Specific Target Organ Toxicity**Single exposure**

Remarks : The substance or mixture is not classified as specific target organ toxicant, single exposure.

Repeated exposure

Remarks : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Other toxic properties**Aspiration hazard**

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No aspiration toxicity classification,

SECTION 12: Ecological information**12.1. Toxicity**

Component:	Sodium hydrogencarbonate	CAS-No. 144-55-8
Acute toxicity		

Fish

NOEC : 5,200 mg/l (Lepomis macrochirus (Bluegill sunfish); 96 h)
 NOEC : 2,300 mg/l (Oncorhynchus mykiss (rainbow trout); 96 h)

Toxicity to daphnia and other aquatic invertebrates

EC50 : 4,100 mg/l (Daphnia magna (Water flea); 48 h)

algae

: Study scientifically unjustified.

Bacteria

: Study scientifically unjustified.

Chronic toxicity**Aquatic invertebrates**

NOEC : > 576 mg/l (Daphnia magna (Water flea); 21 d)

12.2. Persistence and degradability

Component:	Sodium hydrogencarbonate	CAS-No. 144-55-8
Persistence and degradability		

Persistence

Result : decomposition by hydrolysis.

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Biodegradability

Result : The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

Component:	Sodium hydrogencarbonate	CAS-No. 144-55-8
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Bioaccumulation

Result : Not expected to be bioaccumulative

12.4. Mobility in soil

Component:	Sodium hydrogencarbonate	CAS-No. 144-55-8
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Mobility

Soil : Highly mobile in soils

12.5. Results of PBT and vPvB assessment

Component:	Sodium hydrogencarbonate	CAS-No. 144-55-8
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Results of PBT and vPvB assessment

Result : The PBT or vPvB criteria of Annex XIII to the REACH Regulation does not apply to inorganic substances.

12.6. Other adverse effects

Data for the product

Additional ecological information

Result : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.

Contaminated packaging : Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. If recycling is not

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practicable, dispose of in compliance with local regulations.

European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

SECTION 14: Transport information

Not dangerous goods for ADR, RID, IMDG and IATA.

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packaging group

Not applicable.

14.5. Environmental hazards

Not applicable.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IMDG : Not applicable.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Component:	Sodium hydrogencarbonate	CAS-No. 144-55-8
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EU. Regulation EU No. 649/2012 concerning the export and import of dangerous chemicals : ; The substance/mixture does not fall under this legislation.

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EU. REACH, Annex XVII, : ; The substance/mixture does not fall under this legislation.
Marketing and Use
Restrictions (Regulation
1907/2006/EC)

EU. Regulation No : EC Number: , 205-633-8; Listed
1451/2007 [Biocides],
Annex I, OJ (L 325)

EU. Directive : ; The substance/mixture does not fall under this legislation.
2012/18/EU (SEVESO
III) Annex I

Notification status

Sodium hydrogencarbonate:

Regulatory List	Notification	Notification number
AICS	YES	
DSL	YES	
EINECS	YES	205-633-8
ENCS (JP)	YES	(1)-164
IECSC	YES	
INSQ	YES	
ISHL (JP)	YES	(1)-164
KECI (KR)	YES	KE-31360
NZIOC	YES	
PHARM (JP)	YES	
PICCS (PH)	YES	
TSCA	YES	

15.2. Chemical safety assessment

no data available

SECTION 16: Other information

Abbreviations and Acronyms

BCF	bioconcentration factor
BOD	biochemical oxygen demand
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging

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CMR	carcinogenic, mutagenic or toxic to reproduction
COD	chemical oxygen demand
DNEL	derived no-effect level
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
LC50	median lethal concentration
LOAEC	lowest observed adverse effect concentration
LOAEL	lowest observed adverse effect level
LOEL	lowest observed effect level
NLP	no-longer polymer
NOAEC	no observed adverse effect concentration
NOAEL	no observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
OECD	Organisation for Economic Cooperation and Development
OEL	occupational exposure limit
PBT	persistent, bioaccumulative and toxic
REACH Auth. No.:	REACH Authorisation Number
REACH AuthAppC. No.	REACH Authorisation Application Consultation Number
PNEC	predicted no-effect concentration
STOT	specific target organ toxicity
SVHC	substance of very high concern
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
vPvB	very persistent and very bioaccumulative

Further information

Key literature references and sources for data	:	Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.
Methods used for product classification	:	The classification for human health, physical and chemical hazards and environmental hazards were derived from a combination of calculation methods and if available test data.
Hints for trainings	:	The workers have to be trained regularly on the safe handling of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National regulations for the training of workers in the handling of hazardous materials must be adhered to.
Other information	:	The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and

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does not constitute a legal relationship.

The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

|| Indicates updated section.