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BRENNTAG

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

SODIUM BICARBONATE SOLID (ALL GRADES)

Version 4.0 Print Date 2016/09/02

Revision date / valid from 2016/09/02 **MSDS code: MSBC010**

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

1.1. Product identifier

Trade name	:	SODIUM BICARBONATE SOLID (ALL GRADES)
Substance name	:	Sodium hydrogencarbonate
CAS-No.	:	144-55-8
EC-No.	:	205-633-8
EC Registration	:	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 & Ireland Albion House, Rawdon Park GB LS19 7XX Leeds Yeadon
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.

Physical and chemical hazards	:	See section 9 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.

2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5.
The product does not need to be labelled in accordance with EC directives or respective national laws.

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. EC-No. REACH-Reg. No.	: 144-55-8 205-633-8 01-2119457606-32-xxxx	<= 100

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	: No special precautions required.
If inhaled	: Move to fresh air. If symptoms persist, call a physician.
In case of skin contact	: Wash off with plenty of water. If symptoms persist, call a physician.
In case of eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes. If eye irritation persists, consult a specialist.

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	: 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. The product itself does not burn.
Unsuitable extinguishing media	:	No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Heating or fire can release toxic gas.
Hazardous combustion products	:	Carbon oxides

5.3. Advice for firefighters

Special protective equipment for firefighters	:	Use personal protective equipment.
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	: Avoid dust formation. Avoid contact with skin, eyes and clothing. Refer to protective measures listed in sections 7 and 8.

6.2. Environmental precautions

Environmental precautions	: Do not flush into surface water or sanitary sewer system. 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. Sweep up or vacuum up spillage and collect in suitable container for disposal. Dispose of in accordance with local regulations. Flush with plenty of water.
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	:	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Avoid dust formation. Provide for appropriate exhaust ventilation and dust collection at machinery.
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. Remove and wash contaminated clothing before re-use. Avoid dust formation.

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.
Fire-fighting class	:	non-combustible
Further information on storage conditions	:	Keep container tightly closed and dry. Keep in a well-ventilated place. Protect from humidity; Keep away from heat.
Advice on common storage	:	Keep away from food, drink and animal feedingstuffs. Incompatible with acids.

7.3. Specific end use(s)

Specific use(s)	:	No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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

Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)

no data available :

Predicted No Effect Concentration (PNEC)

no data available :

Component:

Other Occupational Exposure Limit Values

UK. EH40 Workplace Exposure Limits (WELs), Time Weighted Average (TWA):, Inhalable dust., Inhalable dust.
10 mg/m3, 8 h

UK. EH40 Workplace Exposure Limits (WELs), Time Weighted Average (TWA):, Respirable dust., Respirable dust
4 mg/m3, 8 h

8.2. Exposure controls

Appropriate engineering controls

Provide for appropriate exhaust ventilation and dust collection at machinery.

Personal protective equipment

Respiratory protection

Advice : If ventilation is insufficient, suitable respiratory protection must be provided
Required, if exposure limit is exceeded (e.g. OEL).
In the case of dust or aerosol formation use respirator with an approved filter.
Respiratory protection complying with EN 143.

Filter Type : P2 filter

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.

Material	:	Chemical resistant gloves.

Eye protection

Advice	:	Safety goggles The applicable European standard can be found in EN 166. Ensure that eyewash stations and safety showers are close to the workstation location.

Environmental exposure controls

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 saturated aqueous solution
Freezing point	:	no data available
Boiling point	:	> 50 °C Decomposes below the boiling point.
Flash point	:	Not applicable
Evaporation rate	:	no data available
Flammability (solid, gas)	:	The product is not flammable. (Flammability (solids))
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Vapour pressure	:	Not applicable
Relative vapour density	:	no data available

Relative density	:	2.21 - 2.23 (20 °C) (EU Method A.3)
Water solubility	:	93.4 g/l (20 °C) (EU Method A.6)
Partition coefficient: n-octanol/water	:	no data available
Auto-ignition temperature	:	Not applicable
Thermal decomposition	:	> 50 °C
Viscosity, dynamic	:	no data available
Explosivity	:	Product is not explosive.
Oxidizing properties	:	not oxidising

9.2. Other information

Bulk density	:	>= 1.200 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 dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Conditions to avoid	:	Humid and hot environment can cause caking of productProtect from moisture contamination.humid air and water
Thermal decomposition	:	>50 °C

10.5. Incompatible materials

Materials to avoid	:	Acids, Avoid moisture.

10.6. Hazardous decomposition products

Hazardous decomposition products	:	No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Data for the product	
Acute toxicity	
Oral	
No adverse effect has been observed in acute toxicity tests., Please find this information in the listing of the component/components below in this section.	
Inhalation	
Please find this information in the listing of the component/components below in this section.	
Dermal	
Please find this information in the listing of the component/components below in this section.	
Irritation	
Skin	
Result	: Please find this information in the listing of the component/components below in this section.
Eyes	
Result	: Please find this information in the listing of the component/components below in this section.
Sensitisation	
Result	: Please find this information in the listing of the component/components below in this section.
CMR effects	
CMR Properties	
Carcinogenicity	: Please find this information in the listing of the component/components below in this section.
Mutagenicity	: Please find this information in the listing of the component/components below in this section.
Reproductive toxicity	: Please find this information in the listing of the component/components below in this section.

Further information		
Other relevant toxicity information	:	Symptoms Nausea Vomiting
Experience with human exposure	:	Health injuries are not known or expected under normal use.,

Component:	Sodium hydrogencarbonate	CAS-No. 144-55-8
Acute toxicity		
Oral		
LD50	:	> 4000 mg/kg (Rat)
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		
Remark	:	The substance or mixture is not classified as specific target organ toxicant, single exposure.
Repeated exposure		
Remark	:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Other toxic properties		
Aspiration hazard		
		No aspiration toxicity classification,

SECTION 12: Ecological information

12.1. Toxicity

Data for the product		
Acute toxicity		
Acute aquatic toxicity		
Result	:	This product has no known ecotoxicological effects.

Component:	Sodium hydrogencarbonate	CAS-No. 144-55-8
Acute toxicity		
Fish		
NOEC	:	5200 mg/l (Lepomis macrochirus (Bluegill sunfish); 96 h)
NOEC	:	2300 mg/l (Oncorhynchus mykiss (rainbow trout); 96 h)
Toxicity to daphnia and other aquatic invertebrates		
EC50	:	4100 mg/l (Daphnia magna (Water flea); 48 h)
algae		
		Study scientifically unjustified.
Bacteria		

Study scientifically unjustified.

12.2. Persistence and degradability

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

Result : The methods for determining biodegradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

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

Result : Not expected to be bioaccumulative

12.4. Mobility in soil

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

Soil : Highly mobile in soils

12.5. Results of PBT and vPvB assessment

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

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 containers should be taken to an approved waste handling site for recycling or disposal. Packagings that cannot be cleaned are to be disposed of in the same manner as the product. In accordance with local and national 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**

EU. Regulation EU No. 649/2012 concerning the export and import of	:	; The substance/mixture does not fall under this legislation.

dangerous chemicals

EU. REACH, Annex XVII, Marketing and Use Restrictions (Regulation 1907/2006/EC)	:	; The substance/mixture does not fall under this legislation.
EU. Regulation No 1451/2007 [Biocides], Annex I, OJ (L 325)	:	EC Number: , 205-633-8; Listed
EU. Directive 2012/18/EU (SEVESO III) Annex I	:	; The substance/mixture does not fall under this legislation.
WGK (DE)	:	WGK 1: slightly water endangering: 374; Classification source is Annex 2.

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	
ISHL (JP)	YES	(1)-164
KECI (KR)	YES	KE-31360
NZIOC	YES	
PICCS (PH)	YES	
TSCA	YES	

15.2. Chemical safety assessment

no data available

SECTION 16: Other information

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.
Other information	:	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other

materials or in any process, unless specified in the text.

|| Indicates updated section.