

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

CHAMPION ALKALINITY INCREASER

Version 4.0

Print Date 2023/12/18

Revision date / valid from 2023/12/18

MSDS code: MAAA746

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

1.1. Product identifier

Trade name : CHAMPION ALKALINITY INCREASER
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 : Water treatment chemical
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 S.I. 2019/720 (GB CLP)

The product is not classified as dangerous according to Regulation S.I. 2019/720 (GB CLP).
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 : See section 9/10 for physicochemical information.

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hazards
Potential environmental effects : See section 12 for environmental information.

2.2. Label elements

Labelling according to Regulation S.I. 2019/720 (GB CLP)

The product is not labeled as dangerous according to Regulation S.I. 2019/720 (GB CLP).
The product is not labeled as dangerous according to Regulation (EC) No. 1272/2008.

2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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	> 98.5
	EC-No. 205-633-8	
	REACH-Reg. No. 01-2119457606-32-xxxx	

SECTION 4: First aid measures

4.1. Description of first aid measures

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General advice	: No known delayed effects
If inhaled	: Remove to fresh air. Keep at rest. If symptoms persist, call a physician.
In case of skin contact	: Wash off with soap and water. If symptoms occur, call a physician.
In case of eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, call a physician.
If swallowed	: Rinse mouth with water. Drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If symptoms call a physician.
Protection of First Aid Responders	: First Aid responders should pay attention to self-protection and use the recommended protective clothing.

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.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Not combustible. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: none

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 (CO ₂)

5.3. Advice for firefighters

Special protective	: In the event of fire, wear self-contained breathing
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equipment for firefighters	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. Avoid dust formation.
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6.2. Environmental precautions

Environmental precautions	: Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. Prevent any mixture with acid into the sewer/drain (gas formation). Dispose of any rinse water in accordance with local and national regulations
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6.3. Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up	: Use mechanical handling equipment. Clean up promptly by scoop or vacuum. 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. Avoid dust formation. 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.
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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.
Advice on common storage	: Keep away from food, drink and animal feedingstuffs. Do not store near acids.
Storage temperature	: < 25 °C
Other data	: Humidity less than 65%

7.3. Specific end use(s)

Specific use(s)	: No information available.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Contains no substances with occupational exposure limit values.

Component:

Other Occupational Exposure Limit Values

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

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

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.

Filter Type : P2 filter

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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 glasses with side-shields conforming to EN166

Skin and body protection

Advice : Protective work clothing

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.
Prevent any mixture with acid into the sewer/drain (gas formation).
Dispose of any rinse water in accordance with local and national regulations

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	:	Crystalline powder
Physical state	:	solid
Colour	:	white
Odour	:	odourless
Odour Threshold	:	No data available
Melting point/range	:	> 50 °C Decomposition
Boiling point/boiling range	:	Decomposes before boiling
Flammability (solid, gas)	:	
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available

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Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	> 50 °C
Self-Accelerating decomposition temperature (SADT)	:	No data available
pH	:	8.4 Method: EU Method A.6 saturated aqueous solution
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Flow time	:	No data available
Solubility(ies)		
Water solubility	:	93.4 g/l (20 °C) Method: EU Method A.6
Solubility in other solvents	:	No data available
Dissolution Rate	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Dispersion Stability	:	No data available
Vapour pressure	:	No data available
Relative density	:	2.21 - 2.23 (20 °C) Method: EU Method A.3
Density	:	No data available
Bulk density	:	No data available
Relative vapour density	:	No data available
Particle characteristics		
No data available		

9.2 Other information

Explosives	:	No chemical groups associated with explosive properties. Not explosive
Oxidizing properties	:	not oxidising

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SECTION 10: Stability and reactivity

10.1. Reactivity

Advice : Decomposes slowly on exposure to water.
Reacts with acids, evolving carbon dioxide

10.2. Chemical stability

Advice : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : None known.

10.4. Conditions to avoid

Conditions to avoid : To avoid thermal decomposition, do not overheatTemperatures
above 50°C.Exposure to moisture
Thermal decomposition : >50 °C

10.5. Incompatible materials

Materials to avoid : Acids

10.6. Hazardous decomposition products

Hazardous decomposition products : No information available.

SECTION 11: Toxicological information

11.1. Information on the hazard classes within the meaning of Regulation (EC) No. 1272/2008

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.	

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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

|| No aspiration toxicity classification,

11.2. Information on other hazards

Data for the product

Endocrine disrupting properties

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according

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to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Component:	Sodium hydrogencarbonate	CAS-No. 144-55-8
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Endocrine disrupting properties

Assessment	:	No information available about endocrine disruption properties for human health.
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SECTION 12: Ecological information

12.1. Toxicity

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

	:	Study scientifically unjustified.
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Bacteria

	:	Study scientifically unjustified.
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Chronic toxicity

Aquatic invertebrates

NOEC	:	> 576 mg/l (Daphnia magna (Water flea); 21 d)
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12.2. Persistence and degradability

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

Persistence

|||Result : decomposition by hydrolysis.

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

Data for the product

Results of PBT and vPvB assessment

Result : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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. Endocrine disrupting properties

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Data for the product

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Component:	Sodium hydrogencarbonate	CAS-No. 144-55-8
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Endocrine disrupting potential	:	No information available about endocrine disruption properties for environment.
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12.7. Other adverse effects

Data for the product

Additional ecological information

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

Result :

Component:	Sodium hydrogencarbonate	CAS-No. 144-55-8
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Additional ecological information

Result	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.
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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. This product shall be disposed of or recovered in compliance with Directive 2008/98/EC on waste as lastly amended. Dissolve in water and neutralise with an acid, under controlled conditions, Do not dispose of directly with acids

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

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

14.1. UN number or ID 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. Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

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. Chemicals Subject to PIC Procedure: Regulation 649/2012/EU on export and import of dangerous chemicals, as amended : ; The substance/mixture does not fall under this legislation.

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

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EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I : ; The substance/mixture does not fall under this legislation.

Germany. List of Substances That Are Not Water-Endangering, AwSV of 21 April 2017, UBA, Banz AT, as amended : WGK 1: slightly hazardous to water: 374

15.2. Chemical safety assessment

No data available

SECTION 16: Other information

Abbreviations and Acronyms

AU AIICL	Australia. Industrial Chemicals Act (AIIC) List
BCF	bioconcentration factor
BOD	biochemical oxygen demand
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	carcinogenic, mutagenic or toxic to reproduction
COD	chemical oxygen demand
DNEL	derived no-effect level
DSL	Canada. Environmental Protection Act, Domestic Substances List
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ENCS (JP)	Japan. Kashin-Hou Law List
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IECSC	China. Inventory of Existing Chemical Substances
INSQ	Mexico. National Inventory of Chemical Substances
ISHL (JP)	Japan. Inventory of Industrial Safety & Health
KECI (KR)	Korea. Existing Chemicals Inventory
LC50	median lethal concentration
LOAEC	lowest observed adverse effect concentration

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LOAEL	lowest observed adverse effect level
LOEL	lowest observed effect level
NDSL	Canada. Environmental Protection Act. Non-Domestic Substances List
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
NZIOC	New Zealand. Inventory of Chemicals
OECD	Organisation for Economic Cooperation and Development
OEL	occupational exposure limit
ONT INV	Canada. Ontario Inventory List
PBT	persistent, bioaccumulative and toxic
PHARM (JP)	Japan. Pharmacopoeia Listing
PICCS (PH)	Philippines. Inventory of Chemicals and Chemical Substances
PNEC	predicted no-effect concentration
REACH Auth. No.:	REACH Authorisation Number
REACH AuthAppC. No.	REACH Authorisation Application Consultation Number
UK REACH Auth. No.:	UK REACH Authorisation Number
UK REACH AuthAppC. No.	UK REACH Authorisation Application Consultation Number
UK REACH-Reg.No	UK REACH Registration Number
STOT	specific target organ toxicity
SVHC	substance of very high concern
TCSI	Taiwan. Existing Chemicals Inventory
TH INV	Thailand. Existing Chemicals Inventory from FDA
TSCA	US. Toxic Substances Control Act
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
VN INVL	Vietnam. National Chemical Inventory
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

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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 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.
- :
- 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.
- Restricted to professional users. Attention - Avoid exposure - obtain special instructions before use.

|| Indicates updated section.