
SAFETY DATA SHEET

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

1.1 Product identifier

- Datasheet Number: SP222 Version 2.0.0
- Product Name: Alkalinity Builder
- Chemical Name: Sodium bicarbonate
- Synonyms: Sodium hydrogen carbonate, sodium acid carbonate, bicarbonate of soda
- CAS Number: 144-55-8
- EC No.: 205-633-8
- REACH Registration Number: 01-2119457606-32-XXXX

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

- Use of the substance/mixture: Pool / spa treatment
- Use advised against: No information available

1.3 Details of the supplier of the safety data sheet

- Name of Supplier: Total Pool Chemicals Ltd
- Address of Supplier: Unit 1-5 , Pool Bank Business Park
High Street, Tarvin
Chester
UK
CH3 8JH
- Telephone: +44 (0)1829 740290
- Email: sales@totalpool.co.uk

1.4 Emergency telephone number

- +44 (0)1829 740290 (Office Hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]: Not Classified
- Additional information: For full text of Hazard- and EU Hazard-statements: see section 16

2.2 Label elements

- Hazard pictograms: None
- Signal Word: None
- Hazard statements
None
- Precautionary statements
None
- Supplemental Hazard information (EU)
None

2.3 Other hazards

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

**SECTION 3: Composition/information on ingredients**

3.1 Substances

- Sodium bicarbonate
 - Concentration: 100%
 - CAS Number: 144-55-8
 - EC Number: 205-633-8
 - Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]: Not Classified
 - REACH Registration Number: 01-2119457606-32

3.2 Mixtures

- Not applicable
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SECTION 4: First aid measures

4.1 Description of first aid measures

- Contact with eyes
 - If substance has got into eyes, immediately wash out with plenty of water for several minutes
 - Irrigate eyes thoroughly whilst lifting eyelids
 - Remove contact lenses, if present and easy to do. Continue rinsing.
 - If eye irritation persists: Get medical advice/attention.
- Contact with skin
 - Wash affected area with plenty of soap and water
 - Take off contaminated clothing and wash it before reuse.
 - If skin irritation occurs: Get medical advice/attention.
- Ingestion
 - Rinse mouth with water (do not swallow)
 - Give plenty of water to drink
 - Do NOT induce vomiting.
 - When in doubt or symptoms persist, seek medical attention
- Inhalation
 - If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - Rinse mouth and nose with water.
 - IF exposed or concerned: Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

- Contact with eyes
 - May cause redness and irritation
- Contact with skin
 - May cause redness and irritation
- Ingestion
 - May disturb the mucous membranes
 - May cause stomach pain
- Inhalation
 - In cases of severe exposure, irritation of the respiratory tract may develop

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically

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SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media: Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions
- Unsuitable extinguishing media: No information available

5.2 Special hazards arising from the substance or mixture

- Gives off irritating or toxic fumes (or gases) in a fire.
- Decomposition products may include carbon oxides
- Decomposition products may include sodium oxides

5.3 Advice for firefighters

- Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.
 - Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.
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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Rescuers should take suitable precautions to avoid becoming casualties themselves
- Only trained and authorised personnel should carry out emergency response
- Personal precautions for non-emergency personnel: Avoid formation of dust; Do not breathe dust; Wear protective clothing as per section 8; Wash thoroughly after handling.
- Personal precautions for emergency responders: Wear self-contained breathing apparatus (SCBA); Wear suitable protective clothing, eye/face protection and gloves

6.2 Environmental precautions

- Avoid release to the environment.
- Do not allow to enter public sewers and watercourses
- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities

6.3 Methods and material for containment and cleaning up

- Stop leak if safe to do so.
- Small spills
 - Wipe up spillage with damp absorbent cloth or towel
- Large spills
 - Avoid formation of dust
 - Sweep or shovel-up spillage and remove to a safe place
 - Place in sealable container
 - Seal containers and label them
 - Remove contaminated material to safe location for subsequent disposal
 - Seek expert advice for removal and disposal of all contaminated materials and wastes
 - Flush spill area with copious amounts of water

6.4 Reference to other sections

- See section(s): 7, 8 & 13
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SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Use only in well ventilated areas
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SECTION 7: Handling and storage (....)

- Avoid contact with skin and eyes
- Prevent formation of dust
- Do not breathe dust
- Wear protective clothing as per section 8
- Do not eat, drink or smoke when using this product.
- Contaminated clothing should be laundered before reuse
- Use good personal hygiene practices
- Wash thoroughly after handling.
- Ensure eyewash stations and safety showers are nearby

7.2 Conditions for safe storage, including any incompatibilities

- Keep in a cool, dry, well ventilated place
- Keep container tightly closed.
- Protect from moisture.
- Keep away from food, drink and animal feedingstuffs
- Keep away from acid

7.3 Specific end use(s)

- Pool / spa treatment

SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

- If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace exposure - Measurement of exposure by inhalation to chemical agents - Strategy for testing compliance with occupational exposure limit values). European Standard EN 14042 (Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents). European Standard EN 482 (Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- The UK HSE (EH40) recommends the following limits for dusts: 10 mg/m³ (8hr TWA) total inhalable dust; 4 mg/m³ (8hr TWA) total respirable dust

8.2 Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential
- Engineering controls
Ensure adequate ventilation
Engineering controls should be provided which maintain airborne concentrations below the relevant guidelines
Use local exhaust ventilation and/or enclosures.
- Respiratory protection
No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved dust mask
Use type FFP2 (EN 143) dust masks
- Eye/face protection
Wear goggles giving complete eye protection approved to standard EN 166.
- Skin protection
Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted.

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SECTION 8: Exposure controls/personal protection (....)

- Hygiene measures
 - Do not eat, drink or smoke when using this product.
 - Use good personal hygiene practices
 - Wash thoroughly after handling.
 - Ensure eyewash stations and safety showers are nearby
- Environmental exposure controls
 - Do not empty into drains
 - Do not allow to penetrate the ground/soil.



SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Solid, white, crystals, powder
- Odour: None
- Odour threshold: No information available
- pH: 8.4
- Melting point/freezing point: 500 °C @ 97.3 kPa
- Initial boiling point and boiling range: No information available
- Flashpoint: Not applicable
- Evaporation Rate: No information available
- Flammability (solid,gas): Not flammable
- Upper/lower flammability or explosive limits: Not applicable
- Vapour Pressure: 66.9 Pa @ 20 °C
- Vapour Density: Not applicable
- Relative Density: 2.21 - 2.23 @ 19.2 - 20 °C
- Solubility(ies): Solubility in water: 93.4 - 108.8 g/L @ 20 °C and pH 8.3 - 8.4
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: No information available
- Decomposition temperature: > 60 °C, decomposes to form sodium carbonate by 100 °C
- Viscosity: No information available
- Explosive Properties: Non-explosive
- Oxidising properties: Not oxidising

9.2 Other information

- Molecular weight: 84.007

SECTION 10: Stability and reactivity

10.1 Reactivity

- Reacts with acid
- May decompose on exposure to water

10.2 Chemical stability

- Stable under normal conditions

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose

10.4 Conditions to avoid



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SECTION 10: Stability and reactivity (....)

- Avoid formation of dust
- Keep away from heat and sources of ignition
- Keep away from moist air or water

10.5 Incompatible materials

- Incompatible with strong acids

10.6 Hazardous decomposition products

- Decomposition products may include carbon oxides
 - Decomposition products may include sodium oxides
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SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute Toxicity
Based on available data, the classification criteria are not met
LD50 (oral, rat): 4 000 mg/kg
 - Skin corrosion/irritation
No adverse effect observed (not irritating)
 - Serious eye damage/irritation
No adverse effect observed (not irritating)
 - Respiratory or skin sensitisation
Based on available data, the classification criteria are not met
 - Germ cell mutagenicity
No evidence of mutagenic effects
 - Carcinogenicity
No evidence of carcinogenic effects
 - Reproductive toxicity
No evidence of reproductive effects
 - Specific target organ toxicity (STOT) - single exposure
Based on available data, the classification criteria are not met
 - Specific target organ toxicity (STOT) - repeated exposure
Based on available data, the classification criteria are not met
 - Aspiration hazard
Based on available data, the classification criteria are not met
 - Contact with eyes
May cause redness and irritation
 - Contact with skin
May cause redness and irritation
 - Ingestion
May disturb the mucous membranes
May cause stomach pain
 - Inhalation
In cases of severe exposure, irritation of the respiratory tract may develop
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SECTION 12: Ecological information

12.1 Toxicity

- Based on available data, the classification criteria are not met
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SECTION 12: Ecological information (....)

- LC50 (fish) 7.1 g/l (4 days)
 - EC50 (aquatic invertebrates) 4.1 g/l (48 hr)
- 12.2 Persistence and degradability
- Not applicable; inorganic
- 12.3 Bioaccumulative potential
- Bioaccumulation is not expected
- 12.4 Mobility in soil
- Large volumes may penetrate soil and contaminate groundwater
- 12.5 Results of PBT and vPvB assessment
- Not a PBT according to REACH Annex XIII
 - Not a vPvB according to REACH Annex XIII
- 12.6 Other adverse effects
- No information available
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SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- Disposal should be in accordance with local, state or national legislation
 - Do not discharge into drains or the environment, dispose to an authorised waste collection point
 - Do not reuse empty containers without commercial cleaning or reconditioning
- 13.2 Classification
- The waste must be identified according to the List of Wastes (2000/532/EC)
 - Hazardous Property Code(s): None assigned
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SECTION 14: Transport information

Not classified as hazardous for transport

- 14.1 UN number
- UN No.: Not applicable
- 14.2 UN proper shipping name
- Proper Shipping Name: Not applicable
- 14.3 Transport hazard class(es)
- Hazard Class: Not applicable
- 14.4 Packing group
- Packing Group: Not applicable
- 14.5 Environmental hazards
- Not Classified
- 14.6 Special precautions for user
- No information available
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
- Not applicable
- 14.8 Road/Rail (ADR/RID)
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SECTION 14: Transport information (....)

- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

14.9 Sea (IMDG)

- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Pack Group.: Not applicable

14.10 Air (ICAO/IATA)

- Proper Shipping Name: Not applicable
 - ICAO UN No.: Not applicable
 - ICAO Hazard Class: Not applicable
 - ICAO Packing Group: Not applicable
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SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 as amended by Regulation (EU) 2015/830
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe

15.2 Chemical safety assessment

- A REACH chemical safety assessment has been carried out
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SECTION 16: Other information

The statements made herein are based on our best present experience and are intended to describe product safety requirements. They should not therefore be considered as a warranty of specific properties.

Sources of data: Information from published literature and supplier safety data sheets

Revision No. 2.0.0. Revised September 2020.

Changes made: Revisions to all sections to conform to Regulation (EU) 2015/830.

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- None assigned

Acronyms

- ATE: Acute Toxicity Estimate
 - CAS: Chemical Abstracts Service
 - DNEL: Derived No-Effect Level
 - EC: European Community
 - EC50: Effective Concentration, 50%
 - GHS: Globally Harmonised System
 - LC50: Lethal Concentration, 50%
 - LD50: Lethal Dose, 50%
 - NOAEC: No observed adverse effect concentration
 - NOAEL: No observed adverse effect level
 - OEL: Occupational Exposure Limit
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SECTION 16: Other information (....)

- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- SCL: Specific Concentration Limit
- vPvB: very Persistent and very Bioaccumulative
- WEL: Workplace Exposure Limit

--- end of safety datasheet ---
