



SAFETY DATA SHEET

100%

SODIUM BICARBONATE

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. PRODUCT IDENTIFIER

Product name: Sodium Bicarbonate
Product No.: SOBICA
CAS-No.: 144-55-8
REACH: 01-2119457606-32
EC No.: 205-633-8
Synonym: Bicarbonate of soda, Sodium hydrogen carbonate
Chemical Formula: NaHCO_3

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Recommended use: In the Laboratory - Neutralization of acids and bases;
In water treatment - swimming pools & aquarium;
As a cleaning agent;
Used in BC Dry Chemical fire extinguishers as an alternative to the more corrosive ammonium phosphate in ABC extinguishers;
As a pesticide: if mixed with sugar, sodium bicarbonate acts as an effective pesticide for roaches and silverfish;
As a homemade snow: In a bowl add 600g of sodium bicarbonate followed by an aerosol tin of shaving foam.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

HD Chemicals LTD
UNIT 9 Scott Business Park
PL2 2PB Plymouth UK

Contact Person responsible for SDS: Mr Peter Konefal, e-mail: contact@hdchemicals.co.uk

**SECTION 2: HAZARDS IDENTIFICATION****2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE**

Classification 67/548/EEC: Not Classified

Classification – EC 1272/2008: Not Classified

2.2. LABEL ELEMENTS

No labelling requirements

SIGNAL WORDS

Not Classified

RISK PHRASES

Not Classified

HAZARD PHRASES

Not Classified

PROTECTION PHRASES

Not Classified

SAFETY PHRASES

Not Classified

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

67/548/EEC/1999/45/EC

Composition information – main constituents

Substance name	Mol. Formula	REACH	Typical conc. (%w/w)	EINECS No.	CAS-No.	Classification
Sodium Bicarbonate	NaHCO ₃	01-2119457606-32	100%	205-633-8	144-55-8	Not Classified



EC 1272/2008

Composition information – main constituents

Substance name	Mol. Formula	REACH	Typical conc. (%w/w)	EINECS No.	CAS-No.	Classification
Sodium Bicarbonate	NaHCO ₃	01-2119457606-32	100%	205-633-8	144-55-8	Not Classified

SECTION 4: FIRST AID MEASURES**4.1. DESCRIPTION OF FIRST AID MEASURES**

First-aid measures general: No known delayed effects. If you feel unwell after used with this product, consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation: If inhaled, remove to fresh air. Rinse nose and mouth with water. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.

Ingestion: DO NOT INDUCE VOMITING. If swallowed, seek medical advice immediately and show this container or label. Rinse mouth. Never give anything by mouth to an unconscious person.

Skin contact: Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact: Rinse immediately with plenty of water. Remove any contact lenses and open eyelids. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Inhalation: Inhalation of dust in high concentration may cause irritation of respiratory system.

Ingestion: Ingestion may cause stomach discomfort.

Skin contact: Prolonged contact may cause redness and irritation.

Eye contact: May cause temporary eye irritation.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically.



SECTION 5: FIREFIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

Suitable extinguishing media: The product is not flammable. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, carbon dioxide (CO₂), dry chemical powder, alcohol-resistant foam.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

5.3. ADVICE FOR FIRE-FIGHTERS

Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode. Wear protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Wear suitable protective equipment to prevent any contamination of skin, eyes and personal clothing. Select appropriate protective clothing for the size of the spillage. Ensure adequate ventilation of the working area. Avoid contact with skin and eyes. Avoid formation of dust. Avoid breathing dust, vapours, mist or gas.

6.2. ENVIRONMENTAL PRECAUTIONS

Should not be released into the environment. Keep away from drains, surface and ground water. Avoid any mixture with an acid into drains (CO₂ gas formation).

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Avoid generation and spreading of dust. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into suitable waste disposal containers and seal securely. Avoid dust formation. For waste disposal, see section 13. Flush contaminated area with plenty of water.



SECTION 7: HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Keep in a cool, dry, well ventilated area. Keep containers tightly closed.

7.3. SPECIFIC END USE(S)

See section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS/EXPOSURE GUIDELINES

Occupational Exposure Limit Values (Sodium Bicarbonate) GB:

CAS NO	Exposure limit	Value	Name of Agent
144-55-8	TWA – 8 Hrs	4 mg/m ³	dust
144-55-8	STEL – 15 Min	10 mg/m ³	dust

Engineering controls:

If user operations generate dust, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne dust levels below recommended exposure limits.

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands before breaks and at the end of the working day. Keep away from foodstuffs, beverages and feed.

Protective equipment:

Use protective goggles with side-shields (European standard - EN 166), gloves (European standard - EN 374) and long sleeved clothing to prevent skin, body and eyes exposure.



PROTECTION WEAR



HAND PROTECTION



EYE PROTECTION



RESPIRATOR

Respiratory equipment: No protective equipment is needed under normal use conditions but when the airborne concentration above 4mg/m³ or 10mg/m³ (see occupational Exposure Limit Values), wear a respirator fitted with the following cartridge: Particulate filter, type P2.

Skin and body protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. The selected gloves should have a breakthrough time of at least 8 hours. It is recommended that gloves are made of polyvinyl chloride (PVC). Wash and dry hands. Wear impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Eye/Face protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Solid
Colour:	White, Crystalline
Odour:	Odourless
Initial boiling point (°C):	Not available



Melting point (°C):	50 °C
Freezing point:	No data available
Relative density:	2.20 g/cm ³
Specific gravity / density:	Not available
Vapour density:	Not available
Vapour pressure:	Not available
Flash point (°C):	Not applicable
Molecular mass:	84.0066 g/mol
Auto-ignition temperature:	Not applicable
Oxidizing properties:	Not applicable
Decomposition temperature:	Not available
Molecular formula:	NaHCO ₃

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

There are no known reactivity hazards associated with this product.

10.2. CHEMICAL STABILITY

Sodium Bicarbonate is stable under normal temperature conditions and under recommended usage and storage.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

Reacts with strong oxidizers and acids.

10.4. CONDITIONS TO AVOID

Keep away from direct sunlight and high temperature for prolonged periods of time. Protect from humidity and water. Avoid dust formation.

10.5. INCOMPATIBLE MATERIALS

Avoid strong oxidising agents and acids.

10.6. HAZARDOUS DECOMPOSITION

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes: carbon monoxide, carbon dioxide, sodium oxides.



SECTION 11: TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

TOXIC DOSE **LD50 Oral – Rat – 4220 mg/kg**
LC50 Inhalation – Rat – 4.74 mg/l

Inhalation: Inhalation of dust in high concentration may cause irritation of respiratory system.

Ingestion: Ingestion may cause stomach discomfort.

Skin contact: Prolonged contact may cause redness and irritation.

Eye contact: May cause temporary eye irritation.

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

Aquatic toxicity to fish: LC50/96h: 7550 mg/l *Lepomis macrochirus*

Aquatic toxicity to water flea: EC50/48h: 2350 mg/l *Daphnia magna*

Aquatic toxicity to freshwater algae: EC50/120h: 650 mg/l

12.2. PERSISTENCE AND DEGRADABILITY

Not relevant for inorganic substances.

12.3. BIOACCUMULATIVE POTENTIAL

Bioaccumulation is unlikely.

12.4. MOBILITY

The product is water soluble, and may spread in water systems . Will likely be mobile in the environment due to its water solubility. Highly mobile in soils.

12.5. RESULTS OF PBT AND vPvB ASSESSMENT

No data available.

12.6. OTHER ADVERSE EFFECTS

No data available.



SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal recommendations: Waste should be treated as controlled waste. Disposal of Sodium Bicarbonate should be in accordance with local and national legislation. Processing, use or contamination of this product may change the waste management options. Should not be released into the environment. Dispose of container and unused contents in accordance with applicable member state and local requirements.

Uncleaned packaging: Disposal must be made according to official regulations.

SECTION 14: TRANSPORT INFORMATION

IMDG

UN number	N/A
UN proper shipping name	N/A
Transport hazard class(es)	N/A
Packing group	N/A

ADR/RID

UN number	N/A
UN proper shipping name	N/A
Transport hazard class(es)	N/A
Packing group	N/A

IATA

UN number	N/A
UN proper shipping name	N/A
Transport hazard class(es)	N/A
Packing group	N/A

SECTION 15: REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

EU legislation: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

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 (as amended).



Commission Regulation (EU) No 2015/830 of 28 May 2015.

15.2 CHEMICAL SAFETY ASSESSMENT

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

General information

The information contained in this safety data sheet is provided in accordance with the requirements of the regulations. The product should not be used for purposes other than those shown in section 1 without first referring to the supplier and obtaining written handling instruction. As the specific conditions of use of the product are outside the suppliers control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.

Revision Comments

This information is provided in a revised format to that previously produced.

Revision Date: 01/10/2018

Revision: 01

Safety Data Sheet Status Approved.

Date printed 01/10/2018

Signature Initials P.K.

DISCLAIMER:

If this product is re-distributed and re-formulated for sale, details of its hazards and recommended methods for safe handling must be passed to customers. Customers are urged to ensure that the product is entirely suitable for their own purpose. It is the customer's responsibility to ensure that a suitable and sufficient assessment of the risks created by a work activity using this product is undertaken before this product is used.

NOTE:

The information contained in this Safety Data Sheet does not constitute the users own assessment of workplace risk as required by other Health & Safety Legislation (e.g. the Health and Safety at Work Act, 1974; the control of Substances Hazardous to Health Regulations, 1988). The data given here is based on current knowledge and experience. The purpose of this data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the product's properties.