

PRODUCT INFORMATION SHEET

Product and Reference: Sodium Bicarbonate

Date of Issue: 14/02/2018

1. Identification of the Preparation and Company

Name and full address:

Key Abrasives Ltd, Clevedale, Bawtry Road, Austerfield, Doncaster, DN10 6QW

Telephone Number: 01302 714517

Emergency Phone Number: 07831368273

Product Code: Sodium Bicarbonate – extra coarse grade

Intended Use: Abrasive cleaning applications

2. Hazards Identification

2.1 Classification of the substance

2.1.1 Classification according to Regulation (EC) 1272/2008

Not Classified

2.1.2 Classification according to Dangerous Substances Directive 67/548/EEC

Not Classified

2.2 Labelling Elements

2.2.1 Labelling according to Regulation (EC) 1272/2008

No labelling requirements

2.3 Other hazards

The substance does not meet the criteria for a PBT or PvB substance

No other hazards identified

3. Composition / Information on ingredients

Main Constituent	Formula	CAS Number	EC number	Wt.- percent
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Sodium Bicarbonate NaHCO³ 144-55-8 205-633-8 > 98.5%w/w

4. **FIRST AID MEASURES**

General:

No known delayed effects

Inhalation:

Move person to fresh air, keep the patient at rest.

Skin Contact:

Wash skin thoroughly with soap and water. If irritation occurs and persists seek medical advice.

Ingestion:

Do NOT induce vomiting

Wash out mouth with water and give plenty of water to drink (at least 300 ml)

Obtain medical advice if necessary

Eye:

Remove contact lenses if worn

Rinse eye thoroughly with eye wash solution or clean water for at least 10 minutes

Eyelids should be held away from the eyeball to ensure thorough rinsing

Obtain medical attention if necessary

5. **FIRE FIGHTING MEASURES**

5.1 Extinguishing media:

5.1.1 Suitable Extinguishing media

The product is not combustible, all extinguisher products can be used

Use extinguishing measures that are appropriate to local to local circumstances and the surrounding environment

5.1.2 Unsuitable extinguishing media

None

5.2 Special hazards arising from the substance or mixture

None

5.3 Advice for fire fighters

No special precautions required

6. **ACCIDENTAL RELEASE MEASURES**

6.1 Personal Precautions

6.1.1 For non emergency personnel

Keep dust levels to a minimum

Wear suitable protective equipment (see section 8)

6.2 Environmental precautions

Avoid discharges into the environment (rivers, watercourses, sewers e.t.c)

Avoid any mixture with an acid into sewer/drains (CO² gas formation)

6.3 Methods for containment and clean up

In all cases avoid dust formation

Use vacuum suction or shovel into bags

Store material in a suitable, correctly labelled closed container, preferable for re-use, otherwise for disposal

6.4 Reference to other sections

For more information on exposure control / personal protection or disposal considerations, please see section 8 and 13

7. **HANDLING AND STORAGE**

7.1 Precautions for safe handling

7.1.1 Protective measures

Keep dust levels to a minimum

Minimize dust generation

Atmospheric levels should be controlled in compliance with the workplace exposure limit (see section 8.1)

Wear protective equipment (see section 8.2)

7.1.2 Advice on general occupation hygiene

Good personal and house keeping practices

No drinking, eating and smoking at the workplace

7.2 Conditions for safe storage including any incompatibilities

Store in a cool dry place (preferably at a temperature below 25°C and humidity less than 65 %)

Store in original , closed and correctly labelled container

Keep away from acids

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational exposure limits

Not listed by the H&SE (Guidance Note EH40) or ACGIH. However for good hygiene the inert dust Workplace Exposure Limits (WEL) should be adopted

Occupational Exposure Standards:

- | | |
|--------------------|--|
| 1. Total dust | Less than 10 mg per cubic metre 8h TWA |
| 2. Respirable dust | Less than 4 mg per cubic metre 8h TWA |

8.1.2 DNEL's / PNEC

DNEL Long term - after assessment of the physicochemical, toxicokinetic and physiological role of sodium bicarbonate, a DNEL long term derivation is considered unnecessary
DNEL Acute - sodium bicarbonate is considered to be of no toxicological concern, in acute studies no local irritation was noted. A DNEL Acute derivation is considered unnecessary
PNEC - the lowest L(E)C 50 value is > 100 mg/l (48-h EC50 with *Daphnia magna* is 3,100 mg/l) and the lowest chronic value is > 0.1 mg/l (21-d NOEC with *Daphnia magna* is > 576 mg/l) . Therefore sodium bicarbonate is not classified according to the EU Directive 67/548/EEC or EU Classification, Regulation, Labelling and Packaging of Substances and Mixtures (CLP) Regulation (EC) No. 1272/2008

8.2 Exposure Controls

8.2.1. Appropriate 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

8.2.2 Personal Protection

8.2.2.1 Eye / face protection

In case of contact with eye , wear eye / face protection rated to protect eyes against dust (EN166) e.g safety eye shields with dust protection, goggles or face visor

8.2.2.2 Hand protection

Wear suitable protective gloves for frequent or prolonged contact

8.2.2.3 Skin/body protection

No special protective equipment required

8.2.2.4 Respiratory Protection

In the case of high dust levels wear suitable respiratory protective equipment eg dust mask or respirator, that conform to national / international standards , EN143 Recommended filter

type P2. In the case of abrasive blasting operations in an open nozzle situation an air fed helmet should be used

8.2.3 Environmental exposure controls

Contain any spillage

Avoid discharges to the environment

Dispose of any rinse water in accordance with local and national regulations

9. **PHYSICAL AND CHEMICAL PROPERTIES**

Physical state	White crystalline powder
Odour	None
Explosion Limits (%)	None
Flash point:	None
Solubility in water (kg/m ³)	93.4g/l @ 20 °C (study result EU method A.6)
Density (relative)	2.21 – 2.23 @ 20 °C
pH	8.4 (saturated solution, study result, EU Method A.6)
Melting Point	decomposes above 50 °C
Flammability	non flammable
Vapour pressure	not applicable
Vapour density	not applicable
Partition coefficient	not applicable
Decomposition temperature	starts to decompose above 50 °C
Viscosity	not applicable (solid)
Oxidising properties	non oxidising

10. **STABILITY AND REACTIVITY**

Reactivity

Decomposes slowly on exposure to water

Reacts with acids, evolving carbon dioxide

Chemical Stability

Stable under recommended storage and handling conditions (see section 7)

Possibility of hazardous reactions

None

Conditions to avoid

Contacts with acids unless under controlled conditions

Heating above 50 C – thermal decomposition commences

Exposure to moisture

Incompatible materials

Acids

Hazardous decomposition products

None

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

In all sections bicarbonate of soda is not classified according to EU Directive 67/548/EEC and CLP Regulation (EC) No 1272/2008

(a) Acute Toxicity

Oral LD50, rat : >4000 mg/kg

Inhalation rat : 4.74 mg/l (low toxic potential)

(b) Skin Corrosion/ irritation

Non irritant

(c) Serious eye damage /Irritation

Non irritant

(d) Respiratory or skin sensitisation

Considered not to have any sensitising properties based on the physiological properties of both its constituent ions and the lack of any reported issues

(e) Germ cell mutagenicity

All test results have proven negative. Sodium bicarbonate is naturally present in cells and the structure does not indicate a genotoxic potential. Therefore sodium bicarbonate is Considered not to be genotoxic

(f) Carcinogenicity

No evidence of sodium bicarbonate having carcinogenic effects

(g) Reproductive Toxicity

No data on reproduction toxicity available. However, based on the normal physiological role of sodium and bicarbonate ions, no toxicity on mammalian or human reproduction is expected.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Fish , Lepomis macrochirus : 96hr-Lcso,7100mg/l

Fish , Lepomis macrochirus : 96hr-NOEC,5200mg/l

Invertebrates, Daphnia magna : 48hr-Lcso,4100 mg/l

Invertebrates, Daphnia magna : 48hr-NOEC 3,100 mg/l

Invertebrates, Daphnia magna : 21 day-NOEC >576 mg/l

12.2 Persistence and degradeability

In water : Not applicable (quickly dissociates)

In soil : Not applicable (Inorganic substance)

In sediment : Not applicable (Inorganic substance)

12.3 Biocummulative potential

: Not applicable (Inorganic substance)

A chemical Safety Assessment Report (CSA/CSR) has been undertaken on sodium bicarbonate

16. **OTHER INFORMATION**

16.1 Abbreviations and acronyms

WEL	; Workplace exposure limit
ACGIH	; American Conference of Industrial Hygiene
TWA	; Time weighted average
DNEL	; Derived no effect level
NOEC	: No Observed Effect Concentration
PBT	: Persistent, Bioaccumulative, Toxic
vPvB	; very Persistent very Bioaccumulative
PNEC	: Predicted No Effect Concentration
ADR	: European Agreement concerning the International carriage of Dangerous Goods By Road
RID	: International Rule for Transport of Dangerous Substances by Rail
ADN	: European Agreement concerning the International Carriage of Dangerous Goods by inland waterway
IMO/IMDG	: International Maritime Organization / International Maritime dangerous Goods Code
ICAO/ IATA	: International Civil Aviation Organization/ International Air Transport Association
OECD	: Organisation for Economic Co-operation and Development
SIDS	; Screening Information Data Set

16.2 Key literature references and sources of data

Data is taken from the Chemical Safety Report (CSR) and /or OECD SIDS report for sodium bicarbonate.

16.3 Further information

16.3.1 The substance covered in this document does not legally require a Safety Data Sheet (SDS)

16.3.2 The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid.

To our best present knowledge the information given is correct and complete as of the date of this document and is given in good faith but without warranty, either expressed or implied, nor do we accept any liability in relation to this information or its use. This version of the SDS supersedes all previous versions

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