Blend-i-Pack Ltd

Safety Data Sheet

BRISKARB®

This Safety Data Sheet contains information concerning the potential risks to those involved in handling, transporting and working with the material as well as describing potential risks to the consumer and the environment. This information must be made available to those who may come into contact with the material or are responsible for the use of the material. This Safety Data Sheet is prepared in accordance with formatting described in REACH regulation (EC) No 1907/2006, and described in CLP Regulation (EC) No 1272/2008.

1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier

Product Name	BRISKARB®
Chemical Name	Sodium hydrogencarbonate
Alternative Name	Bicarbonate of Soda, Baking Soda, Soda Bicarb.
Chemical Formula	$NaHCO_3$
CAS Number	144-55-8
EC Number	205-633-8

1.2 Relevant identified uses of the substance

Agent for absorbing gases or liquids

1.3 Company Details

Company Name	Blend-i-Pack Ltd
Address	Rannoch, Eccles Road, Chapel-en-le-Frith. SK23 9RR
Telephone	+44 (0)844 800 4665
Web	www.blend-i-pack.co.uk
Telephone number of competent person	+44 (0)844 800 4665

1.4 Emergency Telephone

Emergency telephone number (24 hours)	+44 (0)844 800 4665

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 vPvB substance
- No other hazards identified

3. Composition/Information on Ingredients

3.1 Substance

Main constituent	Formula	CAS Number	EC Number	Wt. Percent
Sodium bicarbonate	$NaHCO_3$	144-55-8	205-633-8	>98.0% w/w

Impurities
No impurities relevant for classification and labelling

4. First Aid Measures

4.1 Description of first aid measures

General advice
- No known delayed effects

Following inhalation
- Move person to fresh air and keep at rest

Following skin contact
- Wash skin with soap and water
- If irritation occurs and persists seek medical advice

Following eye contact
- 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

After 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

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 circumstances and the surroundings

5.1.2 Unsuitable extinguishing media
- None

5.2 Special hazards arising from the substance or mixture
- None

5.3 Advice for firefighters
- 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, water courses, sewers etc.)
- Avoid any mixture with an acid into sewer/drains (CO_2 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

6.4 Reference to other sections

- For more information on exposure controls/personal protection or disposal considerations, 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 occupational hygiene

- Good personal and housekeeping 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^{o}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 H&SE (Guidance Note EH40) or ACGIH. However, for good hygiene practice the inert dust Workplace Exposure Limits (WEL) should be adopted
- WEL Recommended Limits: 10mg/m^3 (total dust) (8hr TWA)
  4mg/m^3 (respirable dust) (8hr TWA)

8.1.2 DNEL's/PNEC

- $DNEL_{Long\text{-}term}$ - after assessment of the physicochemical, toxicokinetic and physiological role of sodium bicarbonate,
  a $DNEL_{Long\text{-}term}$ 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 EC_{50} 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 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 the eye, wear eye/face protection rated to protect eyes against dust (EN166) eg.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 standard, EN143. Recommended filter tpe P2

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

9.1 Information basic physical and chemical properties

Appearance	white crystalline powder
Odour	odourless
Odour threshold	not applicable
pH	8.4 (saturated solution)
Melting point	decomposes above 50 °C
Boiling point	not applicable (decomposes on heating)
Flash point	not applicable (inorganic substance)
Evaporation rate	not applicable
Flammability	non-flammable
Upper flammability limit	non-flammable
Lower flammability limit	non-flammable
Relative density	2.21-2.23 @ 20 °C
Water solubility	93.4 g/L @ 20 °C
Partition coefficient	not applicable (inorganic substance)
Vapour pressure	not applicable (inorganic substance)
Vapour density	not applicable
Decomposition temperature	starts to decompose above 50 °C
Viscosity	not applicable (solid)
Explosive properties	non-explosive (no chemical groups associated with explosive properties)
Oxidising properties	non-oxidising (based on the chemical structure of the substance and the oxidation states of the constituent elements)

10 Stability and Reactivity

10.1 Reactivity

- Decomposes slowly on exposure to water
- Reacts with acids, evolving carbon dioxide

10.2 Chemical Stability

- Stable under recommended storage and handling conditions (see Section 7)

10.3 Possibility of hazardous reactions

- Reaction with acid could lead to a pressure build up in a sealed system, due to the evolution of carbon dioxide gas

10.4 Conditions to Avoid

- Contact with acids unless under controlled conditions
- Heating above 50 °C – thermal decomposition commences
- Exposure to moisture

10.5 Incompatible materials

- Acids

10.6 Hazardous decomposition products

- Carbon dioxide can be an asphyxiant if allowed to build up in an unventilated area

11. Toxicological Information

(a) Acute Toxicity

- Oral LD_{50}, rat : >4000 mg/kg
- Inhalation, rat : 4.74 mg/l (low toxic potential)

Not classified according to EU Directive 67/548/EEC and CLP Regulation (EC) No. 1272/2008

(b) Skin Corrosion/Irritation

- Non-irritant

Not classified according to EU Directive 67/548/EEC and CLP Regulation (EC) No. 1272/2008

(c)Serious eye damage/irritation

- Non-irritant

Not classified according to EU Directive 67/548/EEC and CLP Regulation (EC) No. 1272/2008

(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

Not classified according to EU Directive 67/548/EEC and CLP Regulation (EC) No. 1272/2008

(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

Not classified according to EU Directive 67/548/EEC and CLP Regulation (EC) No. 1272/2008

(f) Carcinogenicity

- No evidence of sodium bicarbonate having carcinogenic effects

Not classified according to EU Directive 67/548/EEC and CLP Regulation (EC) No. 1272/2008

(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

Not classified according to EU Directive 67/548/EEC and CLP Regulation (EC) No. 1272/2008

12.1 Toxicity

- Fish, Lepomis macrochirus : 96hr-LC_{50}, 7100 mg/l
- Fish, Lepomis macrochirus : 96hr-NOEC, 5200 mg/l
- Invertebrates, Daphnia magna : 48hr-LC_{50}, 4100 mg/l
- Invertebrates, Daphnia magna : 48hr-NOEC 3100 mg/l
- Invertebrates, Daphnia magna : 21day-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)

12.4 Mobility in soil

Not applicable (partition coefficient measurement not required, inorganic substance)

12.5 PBT and vPvB assessment

According to Annex XIII of REACH Regulation, inorganic substances do not require assessment

12.6 Other adverse effects

No other adverse effects are identified

13. Disposal considerations

13.1 Waste treatment methods

- If recycling spilled product is not practicable, dispose of in compliance with local or national regulations
- Dissolve in water and neutralise with an acid, under controlled conditions
- Do not dispose of directly with acids

Packaging:

- Where possible, recycling is preferred to disposal or incineration
- Clean container with water, dispose of rinse water in accordance with local or national regulations
- Must be incinerated in a registered incineration plant with permit from the local authorities

14. Transport Classification

Sodium bicarbonate is not classified as hazardous for transport

14.1 UN Number

- Not regulated

14.2 UN proper shipping name

- Not regulated

1 4 . 3 Transport hazard class

- Land Transport :	ADR/RID Not restricted
- Inland Waterway Transport :	ADN Not regulated
- Sea Transport :	IMO/IMDG Not regulated
- Air Transport :	ICAO-TI/IATA-DGR Not regulated

15. Regulatory information

15.1 Safety, health and environmental regulations

- Water Hazard Class : WGK 1, VwVwS (Germany)
- TSCA Inventory : Listed

15.2 Chemical safety assessment

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

16. Other information

16.1 Indication of changes

Section 1 – change of company name, logo and contact details
Issue No. : 1.2 Date of Issue : March 2015 - supercedes issue No. : 1.1, Date of Issue: January 2010

16.2 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 : vert 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

16.3 Key literature references and sources of data

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

16.4 Further information

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

16.4.2 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 supercedes all previous versions.

16.4.3 The trade name Briskarb is a registered trademark of Brunner Mond (UK) Limited