

# Safety Data Sheet according to Regulation (EC) no. 1907/2006

Trade name: **SODA**  
Manufacturer/Supplier: CLARKE International Ltd

Print date: 15/08/2017  
Revised on: 15/08/2017

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

### 1.1 Product identifier

Sodium hydrogen carbonate - SODA

#### Use of the product

Mineral blasting abrasive for industrial use

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

Detergents, Environmental Protection, Chemical Industry, Flue Gas Treatment, Water Treatment, Foaming Agents, Tanning Agents, Pulp/Paper Industry, Blasting Agent

### 1.3 Details of the supplier of the safety data sheet

#### Manufacturer / supplier

CLARKE International Ltd

#### Street address / PO Box

Sealand House, Hemnall street

#### Country code / postal code / city

Epping, Essex, CM16 4LG, United Kingdom

#### Phone / fax / email

+44 (0) 1992 565 300 / +44 (0) 1992 561 562

### 1.4 Emergency telephone number

+44 (0) 1992 488 550 (during normal office hours)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### CLP Regulation (EC) No. 1272/2008

Not classified as hazardous according to CLP Regulation (EC) No. 1272/2008.

### 2.2 Label elements

#### CLP Regulation (EC) No. 1272/2008

#### Pictogram and signal word of the product

Does not require labelling under the CLP Regulation (EC) No. 1272/2008.

#### Hazardous components for labelling (Product identifier)

Does not require labelling under the CLP Regulation (EC) No. 1272/2008.

#### Hazard statements

None

#### Safety instructions

None

### 2.3 Other hazards

None

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

This product is a blasting abrasive.

### 3.2 Mixtures

Chemical characterisation	EINECS	CAS No.	REACH Registration No.	Ingredients (Mean values)	Classification according to CLP Regulation (EC) No. 1272/2008	
					Hazard classes / hazard categories	Hazard statements
Sodium hydrogen carbonate (NaHCO <sub>3</sub> )	205-633-8	144-55-8	YR653413-08 (pre-registered)	≥ 100 %	-/-	-/-

Registered substance listed on the so-called 'Candidate List of Substances of Very High Concern (SVHC) for authorisation' of the European Chemicals Agency (ECHA)

#### Hazardous ingredients

Does not contain dangerous ingredients

#### Substances with specified EC threshold values

Does not contain substances with EC exposure limits

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## Section 4: First-aid measures

### 4.1. Description of first aid measures

#### General information

Consult a doctor in case of health disorders.

#### After inhalation

Provide the affected person with fresh air. Consult a doctor in case of irritation of the respiratory tract.

#### After skin contact

Wash with water and soap.

#### After eye contact

Remove contact lenses and rinse the eyes with open eyelids for 10 minutes under running water.

If necessary, consult an ophthalmologist.

#### After swallowing

Rinse mouth. If symptoms persist, immediately call a doctor or a treatment centre for poisoning cases.

### 4.2. Most important symptoms and effects, both acute and delayed

Inhale: No particular risks

Skin: No particular risks. Contact with dust may cause mechanical irritation or dry skin.

Eye: Contact with dust may cause mechanical eye irritation.

Swallow: If swallowed, stomach irritation, nausea, vomiting and diarrhoea may occur.

### 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

Product does not burn. Match extinguishing measures to ambient situation.

#### Extinguishing media that must not be used

Not known

### 5.2 Special hazards arising from the substance or mixture

None

### 5.3 Advice for firefighters

Match fire-fighting measures to ambient situation.

#### Special protective equipment for firefighting

Wear self-contained respirator protective device. Use personal protective equipment.

#### Additional information

Not known

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Bring persons to safety. Avoid dust formation. Sweep up to prevent slipping. Prevent further leakage or spillage.

### 6.2 Environmental precautions

Prevent entering into surface water or sewerage.

Avoid mixing with acids in sewerage (gas formation).

### 6.3 Methods and material for containment and cleaning up

Pick up mechanically and dispose of properly. Keep in suitable and closed containers for disposal.

Do not use compressed air.

### 6.4 Reference to other sections

Refer to protective measures in sections 7 and 8.

#### Additional information

Not known

## SECTION 7: Handling and storage

### 7.1 Precautions on safe handling

#### Handling precautions

Ensure adequate ventilation. Avoid dust formation.

Avoid contact with eyes and skin. Keep away from incompatible products.

#### Advice on protection against fire and explosion

No special fire protection measures are necessary.

#### Additional advice

Not known

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## 7.2 Conditions for safe storage, including any incompatibilities

### Information on storage conditions

Store product in a dry place.

### Requirements for storage facilities and containers/vessels

Keep dry, tightly sealed and in correct labelled containers. Keep away from incompatible products.

### VCI storage class

Storage class 13 (non-combustible solids).

## 7.3 Specific end use(s)

Sodium hydrogen carbonate is not intended for pharmaceutical applications and feed/food.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values in the workplace and/or biological limit values

Time Weighted Average TWA = 10 mg/m<sup>3</sup>

#### Community exposure limits

Country specific. Please inquire in individual cases.

### 8.2. Limitation and monitoring of exposure

#### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over the use of personal protective equipment. Provide adequate ventilation. This can be achieved by local suction or general air extraction.

Sodium hydrogen carbonate is a hazardous substance that does not have its own dust limit value, thus only the general dust limit value applies.

Suitable assessment methods to verify the effectiveness of the protective measures taken include metrological and non-metrological determination methods as described in the Technical Rules for Hazardous Substances (TRGS) 4021 and BS EN 14042 "Workplace areas, Guidelines for the implementation and application of processes for assessment of exposure to chemical and biological agents".

#### Personal protective equipment

The use of personal protective equipment is dependent on the concentrations and quantity of hazardous substances in their execution in specific workplaces.

#### Respiratory protection

Use respiratory protection with dust filter during blasting applications. Recommended Filter Type: P2

#### Hand protection

Glove material: leather

#### Eye protection

Tight-sealing protective eyewear (dust-protection goggles) in accordance with EN 166:2001.

#### Body protection

With normal use, no body protection by half or full-body coverall and boots is required.

#### Information on industrial hygiene

Minimum standards for protective measures when handling working materials are listed in TRGS 500.

Do not eat, drink, smoke or take drugs while using this product.

Avoid contact with skin, eyes and clothing.

Remove soiled or soaked clothing immediately.

Wash hands before breaks and at end of work.

Protect skin by using skin creams.

Observe the usual precautions when handling chemicals.

#### Environmental protection measures

Dispose flush water in accordance with local and national regulations.

See sections 6 and 7; no further action is required.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

Appearance	crystalline, powder
Physical state	solid
Colour	white
Odour	odourless
Molecular weight	84,01 g/mol

#### Safety data

pH value	8,4 bei 8,4 g/l Wasser bei 25 °C 8,6 bei 52 g/l
pKa	pKa1 = 6,33
Melting point/freezing point	no data available, thermal decomposition
Boiling point/range	no data available, thermal decomposition
Flash point	not applicable, inorganic
Evaporation speed	no data available
Ignitability (solid, gaseous)	not flammable
Flammability	inapplicable
Explosive properties	not to be expected
Vapour pressure	no data available, thermal decomposition
Vapour density	inapplicable
Density	2,21 kg/dm <sup>3</sup>
Relative density	2,21 - 2,23 bei 20 °C
Bulk density	0,5 - 1,3 kg/dm <sup>3</sup>
Solubility	69 g/l, water at 0 °C 93 g/l, water at 20 °C 165 g/l, water at 60 °C alcohol, insoluble
n-octanol-water partition coefficient	inapplicable, inorganic
Auto-ignition temperate	not flammable
Decomposition temperature	> 50 °C
Viscosity	inapplicable
Oxidizing properties	not to be expected

The information about the explosion limits refers to Sodium hydrogen carbonate. Please refer to the technical data sheet for other physical and chemical data.

### 9.2 Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Sodium hydrogen carbonate is incompatible with acids. Slowly decomposed under influence of water.

### 10.2 Chemical stability

Sodium hydrogen carbonate is chemically stable and does not change with proper handling and storage.

### 10.3 Possibility of hazardous reactions

No hazardous reactions known

### 10.4 Conditions to avoid

Moisture exposure. Do not overheat to avoid thermal decomposition.

### 10.5 Incompatible materials

Acids

### 10.6 Hazardous decomposition products

No known hazardous decomposition products if used according to specifications.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

oral: LD<sub>50</sub>, rat, > 4000 mg/kg  
inhalation: LC<sub>50</sub>, rat, > 4,74 mg/l  
dermal: no data available

#### Corrosive/irritant to skin

Rabbit, no skin irritation

#### Serious eye damage/eye irritation

Rabbit, no eye irritation

#### Respiratory/skin sensitisation

No data available

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### Germ cell mutagenicity

Genotoxicity in vitro: Tests with bacterial or mammalian cell cultures showed no indication of mutagenic effect  
Genotoxicity in vivo: no data available

### Carcinogenicity

Rat, showed no carcinogenic effect in animal experiments.

### Repeated dose toxicity

Oral administration (feeding), 10 days, rabbit, 330 mg/kg, showed no fruit-damaging effect in animal testing.

### Specific target organ toxicity – single exposure

No data available

### Specific target organ toxicity – repeated exposure

No data available

### Aspiration risk

No data available

### Other information

No data available

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic Toxicity

Fishes, <i>Oncorhynchus mykiss</i>	LC <sub>50</sub> - 96 hours	-	7.700 mg/l
Fishes, <i>Oncorhynchus mykiss</i>	NOEC - 96 hours	-	2.300 mg/l
Fishes, <i>Lepomis macrochirus</i>	LC <sub>50</sub> - 96 hours	-	7.100 mg/l
Fishes, <i>Lepomis macrochirus</i>	NOEC - 96 hours	-	5.200 mg/l
Crustacean, <i>Daphnia magna</i>	EC <sub>50</sub> - 48 hours	-	4.100 mg/l
Crustacean, <i>Daphnia magna</i>	LOEC - 48 hours	-	3.100 mg/l
Crustacean, <i>Daphnia magna</i>	NOEC - 21 days	-	> 576 mg/l

### 12.2 Persistence and degradability

#### Abiotic decomposition

Water, hydrolysed

Result: acid-base balance as a function of pH

Products as decomposition: carbonic acid / bicarbonate / carbonate

#### Biological decomposition

The methods for determining biodegradability are not applicable to inorganic substances.

### 12.3 Bioaccumulation potential

Potential not known

### 12.4 Mobility in soil

#### Water, soil/sediments

Solubility

#### Water, soil/sediments

Increased mobility

### 12.5 Results of PBT and vPvB assessment

The substance in this product does not meet the criteria for classification as PBT or vPvB.

### 12.6 Other adverse effects

Not known

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Sodium hydrogen carbonate. If recycling is not possible, waste must be disposed of in compliance with national and local regulations. Confirm the exact waste code with the disposer.

### 13.2. Packaging

National and local regulations must be followed.

#### Contaminated packaging

Clean container with water.

Flush water must be disposed of in compliance with national and local regulations.

## SECTION 14: Transport information

### 14.1 UN number

No dangerous goods

### 14.2 UN proper shipping name

#### ADR/RID

No dangerous goods

#### IMDG-Code / ICAO-TI / IATA-DGR

No dangerous goods

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**14.3 Transport hazard class(es)**  
**ADR / RID / IMDG-Code / GGVSee / ICAO-TI / IATA-DGR**  
No dangerous goods

**14.4 Packing group**  
No dangerous goods

**14.5 Environmental hazards**  
**Label environmentally hazardous substances**  
ADR / RID / IMDG-Code: no  
ICAO-TI / IATA-DGR: no

**14.6 Special precautions for user**  
see Section 6 to 8

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**  
Not applicable

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU Regulations

**Admission according to title VII of the REACH Regulation (EC) No. 1907/2006**

None

**Restrictions according to title VIII of the REACH Regulation (EC) No. 1907/2006**

None

**Labelling requirements according to CLP Regulation (EC) No. 1272/2008**

No labelling required

#### National regulations

##### Water hazard class

Water hazard class 1, slightly hazardous to water

##### Technical instruction on air quality (TA-Luft)

Substance not mentioned by name.

##### Hazardous Incident Ordinance (12. BImSchV [German Federal Immission Control Regulation])

Substance not mentioned by name.

##### Solvents Ordinance (31. BImSchV [German Federal Immission Control Regulation])

Substance not mentioned by name.

##### Chemicals Prohibition Ordinance

Substance not mentioned by name.

##### Relevant Technical Rules for Hazardous Substances

Contains no hazardous substances.

##### Employment Restrictions

Not known

#### Miscellaneous

Sodium hydrogen carbonate is not subject to the VOC Regulation.

#### Status of registration

Information in Inventory listings			Status
Australia	Australian Inventory of Chemical Substances	AICS	according to inventory listings
Canada	Domestic Substances List	DSL	according to inventory listings
Korea	Korean Existing Chemicals Inventory	KECI KR	according to inventory listings
Europe	European Inventory of Existing Commercial Chemical Substances	EINECS	according to inventory listings
Japan	Existing and New Chemical Substances Inventory	ENCS	according to inventory listings
China	Inventory of Existing Chemical Substances	IECS	according to inventory listings
Philippines	Philippines Inventory of Chemicals and Chemical Substances	PICCS	according to inventory listings
USA	Toxic Substance Control Act	TSCA	according to inventory listings
New Zealand	New Zealand Inventory of Chemicals	NZIOC	according to inventory listings
Mexico	National Inventory of Chemical Substances	INSQ	according to inventory listings

### 15.2 Chemical safety assessment

Not applicable

## SECTION 16: Other information

#### Further applicable EC directives

Not known

#### Restrictions on use recommended by the manufacturer

For industrial application only.

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## Other notices

The product information in this safety data sheet is correct to the best of our knowledge at the time of printing. The information is intended to provide you with advice on the safe handling of the product mentioned in this safety data sheet for storage, processing, transport and disposal. The information cannot be applied to other products. If the product mentioned in this safety data sheet is in any way tampered with i.e. mixed with other materials, processed or undergoes processing, the information as supplied in this document no longer applies to the new product unless expressly stated otherwise.

## Amendments compared with the last version

## Literature and data sources

### Regulations

REACH Regulation (EC) No. 1907/2006  
CLP Regulation (EC) No. 1272/2008  
Hazardous Substances Ordinance (GefStoffV)  
Commission Decision 2000/532/EC (AVV)  
Transport Regulations according to ADR, RID and IATA  
TRGS 900  
VOC Regulation (ChemVOCFarbV)

### Hazard statements, referred to in section 2 and 3 according to Regulation (EC) No. 1272/2008

None

### Methods according to article 9 of the CLP Regulation (EC) No. 1272/2008 for evaluation of the information used for classification

Not applicable as only for mixtures

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**The above information is based on the present state of knowledge; however, this shall not constitute a guarantee of product properties and establishes no contractual legal rights. Existing laws and regulations must be strictly followed by the recipient or user of the blasting medium on their own responsibility.**

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## Legend

ADR	European agreement concerning the international carriage of dangerous goods by road
AVV/EWC	European Waste Catalogue
BImSchV	Regulation on the Implementation of the (German) Federal Immission Control Ordinance
CAS	Chemical Abstracts Service
EC	European Community
EN	European Standard
GefStoffV	Hazardous Substances Ordinance
GGVSee	Regulation on the transportation of dangerous goods by sea
IATA-DGR	International Air Transport Association-Dangerous Goods Regulations
IBC-Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization-Technical Instructions
IMDG-Code	International Maritime Code for Dangerous Goods
MARPOL	Maritime Pollution Convention
PBT	persistent, bioaccumulative, toxic
RID	Regulations concerning the International Carriage of Dangerous Goods
TRGS	Technical Rules for Hazardous Substances
UN	United Nations
VOC	Volatile Organic Compounds (VOCs)
vPvB	very persistent and very bioaccumulative
VwVwS	Administrative Regulation on Substances Hazardous to Water
WGK	Water hazard class

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