

# Material Safety Data Sheet

## Soda Ash (Sodium Carbonate)

### 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

#### Product identifier

Name of the Product:	<b>SODIUM CARBONATE</b>
Also Known As:	SODA ASH
<b>EC Number:</b>	207-838-8
<b>EC Name:</b>	Sodium Carbonate
<b>CAS Number:</b>	497-19-8
<b>CAS Name:</b>	Sodium Carbonate
<b>IUPAC Name:</b>	Disodium Carbonate
<b>REACH Registration No.:</b>	01-2119485498-19-0025

#### Relevant identified uses of the substance of the mixture and uses which are not advised

Flux agents for casting; Intermediated; Agents absorbing and adsorbing gases or liquids; Laboratory chemicals; Processing aid; not otherwise listed; pH regulating AGENTS; Food/feedstuff additives; Pharmaceutical substances.

Uses advised against are not identified.

Overview on exposure scenarios and coverage of substance life cycle is provided in Appendix 1.

#### Details of the supplier of the safety information sheet

Name: SCM Group (Pty) Ltd  
Address: Building 13  
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Greenstone  
1610  
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### 2. IDENTIFICATION OF THE HAZARDS

#### Classification of the substance:

**Classification according to CLP:** Sodium carbonate is currently listed in Annex VI of Regulation (EC) No. 1272/2008 (Index Number: 011-005-00-02) and classified:

**For physical – chemical properties:** Not classified  
**For health effects:** Eye irritation 2

**For the environment:** Not classified

**Classification according to DSD:** Sodium carbonate is currently listed in Annex I of Directive 67/548/EEC (Index number: 011-005-00-2) and classified:

**For physical – chemical properties:** Not classified



**For health effects:** Xi, R36  
**For the environment:** Not classified  
**Label elements:** Labeling according to CLP  
**Signal word:** Warning  
**Hazard pictogram:** GHS07 exclamation mark



**Hazard statement:** H319 –causes serious eye irritation

The precautionary statements associated to H319 according to Annex 1 of the CLP Regulation, are:

P264	Wash the eye thoroughly after handling
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and continue rinsing
P337+P313	If eye irritation persists: get medical advice/attention

Labelling according to DSD (Dangerous Substances Directive)

Pictogram:



**Indication of danger:** Xi – irritant  
**R-phrases:** 36 irritating to eyes  
**S-phrases:** (2)-22-26  
 S2- Keep out of the reach of children  
 S 22 – Do not breathe the dust of the product  
 S 26 – In case of contact with eyes, rinse them immediately with plenty of water and seek medical advice.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

<i>Chemical Name</i>	<i>CAS-No</i>	<i>EC-No</i>	<i>Concentration (%)</i>	<i>Classification</i>
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Sodium carbonate	497-19-8	207-838-8	> 99,4	Xi; R36
Chlorides in terms of NaCl	7647-14-5	231-598-3	max 0,6	

**Note:**

- The concentration of constituents is indicated in terms of dry substance;
- Admixtures with concentration of < 0,1 % are not specified.
- For full text of the R-phrases mentioned in this Section, see Section 2.

#### 4. FIRST AID MEASURES

**Description of first aid measures**

- Inhaled: Move to fresh air. If symptoms persist, call a physician.
- Skin contact: Remove and wash contaminated clothing before re-use. Wash off with soap and water. If symptoms persist, call a physician.
- Eye contact: Wash immediately with abundant water during 15 minutes keeping eyes well open – remove contact lenses and seek medical attention.
- Ingested: Rinse mouth with water. Do NOT induce vomiting. If symptoms persist seek immediate medical attention.

**Most important symptoms and effects, both acute and delayed**

Reddening and irritation. Laxative effect in large doses. In case of discomfort, seek medical attention.

#### 5. FIREFIGHTING MEASURES

- Extinguishing media:** All possible extinguishing media can be used.
- Special hazards arising from the substance or mixture:** The product is not considered as flammable. But under the effects of heat, it may emit toxic gases.
- Advice for firefighters:** Respiratory protection, eye protection, boots and gloves.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protection equipment and emergency procedures:**

Avoid dust formation. Avoid contact with eyes. Contain the contaminated area and restrict access to unauthorized persons.

**Environmental precautions:**

Prevent spillage from entering the sewer system or in the water flows. If not possible, dilute with water. Prevent any mixture with an acid into the sewer/drain (gas formations).

**Methods and material for containment and cleaning up:**

- Recovery: Collect the product using suitable media (broom, vacuum cleaner; shovel)
- Cleaning: Place the spilt product in a suitable container and label it correctly
- Disposal: Disposal of the material or solid waste at an authorized centre

**Reference to other sections:**

For more information, see Section 8 and 13.

#### 7. HANDLING AND STORAGE:

**Precautions for safe handling**

- Technical measures: No particular technical intervention is required



Precautions: Avoid the formation or dispersion of dust into the atmosphere. Ensure adequate ventilation. Keep away from incompatible products.  
Usage recommendation: Respect the usage instructions

**Conditions for safe storage, including any incompatibilities**

Technical measures: Keep properly labelled containers sealed and stored in dry areas.  
Incompatible substances: Keep away from incompatible products.  
Packaging conditions: The product can be stored in common commercial containers.  
Maximum quantities that can be stored: Not applicable.  
Packaging materials: Plastic material (polythylene, polypropylene) Woven plastic material + PE.  
Unsuitable packaging: Material moisture permeable.

**8. EXPOSURE CONTROLS/ PERSONAL PROTECTION**

**Maximum permissible exposure limits:  
Industrial DNEL(s)**

DNEL acute, systemic	-	can not be assessed
DNEL long term , systemic	-	can not be assessed
DNEL local for oral effect	-	can not be assessed
DNEL local for dermal effect	-	can not be assessed
DNEL acute local effect if inhaled-	-	can not be assessed
DNEL long term, local if inhaled	-	can not be assessed
DNEL by effecting the eyes	-	can not be assessed

**National permissible exposure limit on-site (OEL)**  
OEL = 10mg/m<sub>3</sub>

**Predicted No-Effect Concetration (PNEC)**

PNEC sediment	-	can not be estimated
PNEC terrestrial	-	can not be estimated
PNEC atmospheric	-	can not be estimated
PNEC STR	-	can not be estimated
PNEC STP –added	-	can not be estimated
PNEC oral (secondary poisoning)	-	can not be estimated

**Exposure controls**

**Appropriate engineering controls**

- Provide appropriate exhaust ventilation at places where dust is formed
- Apply technical measures to comply wit the occupational exposure limits.

**Personal protection**

**Respiratory protection**

- Effective dust mask
- Recommended Filter type: P2

**Hand protection**

- Waer suitable gloves
- Suitable material: neoprene, Natral Rubber



#### Eye protection

- Safety goggles

#### Skin and body protection

- Dust impervious protective suit
- Rubber or plastic boots
- Rubber or plastic apron

#### Hygiene measures

- Ensure that eyewash stations and safety showers are close to the workstation location
- When using do not eat, drink or smoke
- Wash hands before breaks and at the end of workday
- Handle in accordance with good industrial hygiene and safety practice

#### Environmental exposure controls

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

Detailed information is specified in the Section 12.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

Physical state AT 20 °C and 101.3 kPa	:	Solid matter in the form of white odorless powder (microspheres)
Melting/freezing temperature:	:	851°C
Relative density	:	2,52-2,53 at 20°C
Water solubility	:	212,5 g/l at 20°C
Inflammability	:	The substance is non inflammable
Appearance:	Powder or granules	
Colour:	White	
Odour:	Odourless	

**Explosive properties** : The substance is non explosive

**Oxidizing properties** : The substance is non oxidising

#### Other information

Sodium carbonate has been in the context of the OECD HPV Chemicals Program (OECD,2002). The assessment, published by United Nations Environment Program (UNEP), is integrated in chemical safety report.

### 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	Decomposes by reaction with strong acids.
<b>Chemical stability:</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions:</b>	None
<b>Conditions to avoid:</b>	Exposure to moisture.
<b>Incompatible materials:</b>	Finely divided aluminum.
<b>Hazardous decomposition products:</b>	None

### 11. TOXICOLOGICAL INFORMATION

#### Toxicological Kinetics

When contacting with biological liquids sodium carbonate decomposes into carbonate and sodium. Carbonate can potentially raise pH level in blood.



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Sodium intake is the course of expose of sodium carbonate on the h is less than at food intake. Therefore the regular presence of sodium carbonate in the human body is not probable. Oral intake of sodium carbonate results with its neutralization by gastric acid in the stomach.

**Signs of acute toxicity**

- Oral toxicity :  $LD_{50} = 2,800 \text{ mg /kg bw, rats.}$
- Dermal toxicity :  $LD_{50} = 2,000 \text{ mg /kg bw, rats.}$
- :  $LD_{50} \text{ s - } 800 \text{ mg /m}_3 \text{ , cavies, exposure period 2 hours;}$
- :  $LD_{50} \text{ s - } 1,200 \text{ mg /m}_3 \text{ , mice, exposure period 2 hours;}$
- :  $LD_{50} \text{ s - } 800 \text{ mg /m}_3 \text{ , r, exposure period 2 hours;}$

- Irritant action to eyes** : Irritating to eyes
- Irritant action on skin** : Not irritating to skin
- Respiratory irritation** : Can cause irritation of respiratory channels.
- Sensibilization** : On the bases of available data the classification criteria are not applied.
- Repeated dose toxicity** : On the bases of available data the classification criteria are not applied.
- Mutagenicity** : On the bases of available data the classification criteria are not applied.
- Carcinogenicity** : On the bases of available data the classification criteria are not applied.

**12. ECOLOGICAL INFORMATION**

**Toxicity**

Not registered. Sodium carbonate decomposes on  $\text{Na}^+$  and  $\text{CO}_3^{2-}$  ions which present in considerable quantities in ecosystems and living organisms. The concentration of ions depends on various factors; geological parametres, weather conditions, human activity. Both kinds of ions are carefully studied; their influence on ecosystmes, living organisms and plants is unlikely or doesn't exist. Ecological classification and substnace labeling is unnecessary.

**Stability and biodegradability**

Inessential

**Migration in soils**

Inessential

**Other adverse effects**

Inessential

**13. WASTE DISPOSAL CONSIDERATIONS**

**Waste treatment methods** Deposit in an authorized centre for collection of Non-Hazardous Industrial Waste

**NOTES:**

The user must pay attention to the possible existence of local instructions and regulations related to suitable means of disposal.

**Contaminated packaging**

- Where possible recycling is preferred to disposal or incineration.
- Clean container with water.
- Dispose of rince water in accordance with local and national regulations.
- Contaminated packaging must be incenerated in a suitable incineration plant holding a permit delivered by the competent authorities.

**14. TRANSPORT INFORMATION**

- UN number** : Without control
- Chemical name** : Sodium carbonate



**Class of hazard(s) at transportation**

ADR/RID – not classified

AND(R) – not classified

IMDG – not classified

ICAO/IATA – not classified

**Packaging class** : Without control  
**Marine pollutant** : No  
**Other information** : No special protective measures are required besides mentioned in Section 8.

**Transportation without  
package (in bulk) in  
accordance with  
Appendix II MARPOL  
73/78 and International  
Law Transport of  
Hazardous Chemicals  
in bulk** :

Without control

**15. NORMS (REGULATORY DATA)**

**Chemical Safety Assessment**

Chemical Safety Assessment is provided for this substance.

**Sources of basic data**

OEDC (2002): Sodium carbonate, CAS no. 497-19-8. SIDS Initial Assessment Report For SIAM 15, Boston, USA, 22-25 October 2002.

Chemical Safety Report – Sodium carbonate, JSC <<Soda>> (of the 20<sup>th</sup> of September 2010)

**16. OTHER INFORMATION**

**Recommendations on studying**

Before using the substance please read the Safety Data Sheet.

**Recommendations on using the Safety Data Sheet**

The Safety Data Sheet is prepared according to Article 31 and Appendix II of EU REACH authorization No. 453/2010, EC GLP Regulations.

The responsible persons receiving this Safety Data Sheet must guarantee that those persons, who can use, process, utilize or otherwise contact to the product should read and correctly understand the information contained herein. If the recipient manufactures subsequently a composition containing this product, so only this recipient is responsible for carrying over the corresponding information from this Safety Data Sheet of the product into their own Safety Data Sheet.

As it is specified above, this Safety Data Sheet is prepared according to the current European Law. If you acquire this product outside of Europe where the legislation on conformity can differ, you should receive from your local supplier the Safety Data Sheet valid for the country in which the product is sold or where its use is supposed. Please pay attention that the exterior and the content of the Safety Data Sheet even for the same product can vary in the various countries, reflecting various requirements on conformity to the regulations (guidelines).

**Other information**



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Safety Data Sheet (version 2.0) was revised in section of Name and Legal address of manufacturing company, to provide the distributors information namely SCM Group (Pty) Ltd – South Africa distributor of Russian manufacturer’s Sodium carbonate (Soda Ash).

**APPENDIX 1. Overview on exposure scenarios and coverage of substance life cycle**

ES number	Manufacture	Identified uses				Sector of Use (SU)	Product Category (PC)	Process category (PROC)	Environmental Release Category (ERC)	Article category (AC)
		Glass	Formulation	Other ind and prof uses	Consumer use					
ES 2		x				SU 13		PROC 1-4, 8a, 8b, 22, 23, 26	ERC 6a	Not applicable
ES 3			x			SU 10		PROC 1-5, 8a, 8b, 9, 14, 15	ERC 2	Not applicable
ES 4				x		SU 0-24	PC 0-40	PROC 1-4, 7, 8a, 8b, 9, 10, 11, 13, 15, 17, 18, 19, 22, 23, 26	ERC 4, 5, 6a, 6b, 6d, 7, 8a, 8b, 8c, 8d, 8e, 8f, 9a, 9b	Not applicable
ES 5					x	SU 21	PC 0-40		ERC 8a, 8b, 8c, 8d, 8e, 8f, 9a, 9b	Not applicable