SAFETY DATA SHEET

Soda Ash  (Sodium Carbonate)

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

1.1 Product identifier:

Product name: Soda Ash (Sodium carbonate)
Synonyms: carbonic acid disodium salt; carbonic acid sodium salt; CASWELL NO. 752; chrystal carbonate; crytestal carbonate (=sodium carbonate); disodium carbonate; natural ash; Na-X; snowlite 1; soda ash; soda, crystals; soda (sodium carbonate); anhydrous soda; ash; bisodium carbonate; calcined soda (=sodium carbonate); sodium carbonate, anhydrous; sodium carbonate, anhydrous ASTM D458; sodium carbonate, anhydrous GE materials D4DS; sodium carbonate, anhydrous powder; sodium carbonate, crude; sodium carbonate, granular; Solvay soda; synthetic ash; washing soda (=sodium carbonate)

Registration number REACH: 01-2119485498-19-0011
Product type REACH: Substance/mono-constituent
CAS number: 497-19-8
EC index number: 011-005-00-2
EC number: 207-838-8
RTECS number: V2405000
Molecular mass: 105.99 g/mol
Formula: Na2CO3

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

1.2.1 Relevant identified uses
- Chemical raw material
- Glass production: raw material
- Detergent: component
- Acidity regulator
- Paper production: auxiliary substance

1.2.2 Uses advised against
No uses advised against known

1.3 Details of the supplier of the safety data sheet:

Supplier of the safety data sheet
Deep South Chemical, Inc.
229 Millstone Rd.
Broussard, LA 70518

Manufacturer of the product
Deep South Chemical, Inc.
229 Millstone Rd.
Broussard, LA 70518

1.4 Emergency telephone number:

24h/24h:
CHEMTREC: 1-800-424-9300

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation EC No 1272/2008
Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

<table>
<thead>
<tr>
<th>Class</th>
<th>Category</th>
<th>Hazard statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Irrit.</td>
<td>category 2</td>
<td>H319: Causes serious eye irritation.</td>
</tr>
</tbody>
</table>

2.1.2 Classification according to Directive 67/548/EEC-1999/45/EC
Classified as dangerous in accordance with the criteria of Directives 67/548/EEC and 1999/45/EC
Xi; R36 - Irritating to eyes.

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**Soda Ash (Sodium carbonate)**

### 2.2 Label elements:

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

<table>
<thead>
<tr>
<th>Signal word</th>
<th>Warning</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-statements</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>P-statements</td>
<td>Wear eye protection/face protection.</td>
</tr>
<tr>
<td>P264</td>
<td>Wash hands thoroughly after handling.</td>
</tr>
<tr>
<td>P305 + P351 + P338</td>
<td>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</td>
</tr>
<tr>
<td>P337 + P313</td>
<td>If eye irritation persists: Get medical advice/attention.</td>
</tr>
</tbody>
</table>

### 2.3 Other hazards:

#### SECTION 3: Composition/information on ingredients

#### 3.1 Substances:

<table>
<thead>
<tr>
<th>Name (REACH Registration No)</th>
<th>CAS No</th>
<th>Conc. (C)</th>
<th>Classification according to DSD/DPD</th>
<th>Classification according to CLP</th>
<th>Note</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium carbonate (01-2119485498-19)</td>
<td>497-19-8</td>
<td>C&gt;99 %</td>
<td>Xi; R36</td>
<td>Eye Irrit. 2; H319</td>
<td>(1)</td>
<td>Mono-constituent</td>
</tr>
</tbody>
</table>

(1) For R-phrases and H-statements in full: see heading 16

#### 3.2 Mixtures:

Not applicable

#### SECTION 4: First aid measures

#### 4.1 Description of first aid measures:

**General:**

**After inhalation:**
Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

**After skin contact:**
Rinse with water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.

**After eye contact:**
Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

**After ingestion:**
Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Consult a doctor/medical service if you feel unwell.

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

**4.2.1 Acute symptoms**
- **After inhalation:**
- **After skin contact:**
  Not irritating.
- **After eye contact:**
  Irritation of the eye tissue. Lacrimation.
- **After ingestion:**

**4.2.2 Delayed symptoms**
No effects known.

#### 4.3 Indication of any immediate medical attention and special treatment needed:
If applicable and available it will be listed below.
Soda Ash (Sodium Carbonate)

SECTION 5: Firefighting measures

5.1 Extinguishing media:
   5.1.1 Suitable extinguishing media:
   Adapt extinguishing media to the environment.
   5.1.2 Unsuitable extinguishing media:
   No unsuitable extinguishing media known.

5.2 Special hazards arising from the substance or mixture:
   Upon combustion: CO and CO2 are formed. Reacts on exposure to water (moisture) with (some) metals.

5.3 Advice for firefighters:
   5.3.1 Instructions:
   No specific fire-fighting instructions required.
   5.3.2 Special protective equipment for fire-fighters:

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:
   Prevent dust cloud formation, e.g. by wetting. No naked flames.
   6.1.1 Protective equipment for non-emergency personnel
   See heading 8.2
   6.1.2 Protective equipment for emergency responders
   Suitable protective clothing
   See heading 8.2

6.2 Environmental precautions:
   Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray. Violent exothermic reaction with (some) acids: release of harmful gases/vapours (carbon dioxide). Carbon dioxide is heavier than air and will collect in ducts, drains and low lying areas.

6.3 Methods and material for containment and cleaning up:
   Prevent dust cloud formation. Scoop solid spill into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

6.4 Reference to other sections:
   See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1 Precautions for safe handling:

7.2 Conditions for safe storage, including any incompatibilities:
   7.2.1 Safe storage requirements:
   Store in a cool area. Store in a dry area. Keep container in a well-ventilated place. Keep out of direct sunlight. Meet the legal requirements.
   7.2.2 Keep away from:
   Heat sources, (strong) acids, metals, water/moisture.
   7.2.3 Suitable packaging material:
   No data available
   7.2.4 Non suitable packaging material:
   Aluminium, zinc.

7.3 Specific end use(s):
   If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:
   8.1.1 Occupational exposure
      a) Occupational exposure limit values
      If limit values are applicable and available these will be listed below.
8.1.2 Sampling methods

<table>
<thead>
<tr>
<th>Product name</th>
<th>Test</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

<table>
<thead>
<tr>
<th>Substance or mixture</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soda Ash (Sodium carbonate)</td>
<td>Long-term local effects inhalation</td>
<td>10 mg/m³</td>
</tr>
</tbody>
</table>

8.1.4 DNEL/PNEC values

<table>
<thead>
<tr>
<th>Substance</th>
<th>Type</th>
<th>Effect level (DNEL/DMEL)</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soda Ash (Sodium carbonate)</td>
<td>Long-term local effects inhalation</td>
<td>DNEL</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Soda Ash (Sodium carbonate)</td>
<td>Acute local effects inhalation</td>
<td>DNEL</td>
<td>10 mg/m³</td>
</tr>
</tbody>
</table>

8.1.5 Control banding

If applicable and available it will be listed below.

8.2 Exposure controls:

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Avoid raising dust. Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Keep container tightly closed. Do not eat, drink or smoke during work.

- Dust production: dust mask with filter type P1.

- Hand protection:
  - Gloves.
  - Materials for protective clothing (good resistance)
    - Butyl rubber, PVC.

- Eye protection:
  - Safety glasses. In case of dust production: protective goggles.

- Skin protection:
  - Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical form</td>
<td>Crystalline solid</td>
</tr>
<tr>
<td></td>
<td>Crystalline powder</td>
</tr>
<tr>
<td></td>
<td>Grains</td>
</tr>
<tr>
<td></td>
<td>Lumps</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless to white</td>
</tr>
<tr>
<td>Particle size</td>
<td>694 µm</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>Non combustible</td>
</tr>
<tr>
<td>Log Kow</td>
<td>-6.19; Estimated value</td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>Data not required</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>Data not required</td>
</tr>
<tr>
<td>Melting point</td>
<td>851 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Data not required</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not required: exemption according to REACH</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not required: exemption according to REACH</td>
</tr>
</tbody>
</table>
Soda Ash (Sodium carbonate)

No physical hazard class

9.2 Other information:
Absolute density  2530 kg/m³

9.3 Physical hazards:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative vapour density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility</td>
<td>water; 212.5 g/l; 20 °C</td>
</tr>
<tr>
<td>Relative density</td>
<td>2.52-253; 20 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>1600 °C</td>
</tr>
<tr>
<td>Auto-ignition</td>
<td>&gt;400 °C</td>
</tr>
</tbody>
</table>

9.4 Other information:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poisonous properties</td>
<td>2</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No;</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No;</td>
</tr>
<tr>
<td>pH</td>
<td>11.6; 5.0 %</td>
</tr>
</tbody>
</table>

10. Reaction:

10.1 Reactivity:

Substance has basic reaction.

10.2 Chemical stability:

Hygroscopic.

10.3 Possibility of hazardous reactions:

Reacts on exposure to water (moisture) with (some) metals. Violent exothermic reaction with (some) metals. Reacts with (strong) oxidizers.

10.4 Conditions to avoid:

Avoid raising dust. Keep away from naked flames/heat.

10.5 Incompatible materials:

(strong) acids, metals, water/moisture, aluminium, zinc.

10.6 Hazardous decomposition products:

Violent exothermic reaction with (some) acids: release of harmful gases/vapours (carbon dioxide). Upon combustion: CO and CO2 are formed.

11. Toxicological information

11.1 Information on toxicological effects:

- Toxicokinetics: summary

Toxicokinetics (absorption, metabolism, distribution and elimination)

The toxicokinetics of sodium carbonate are well understood. When sodium carbonate comes into contact with body fluids it will dissociate into carbonate and sodium. The carbonate could potentially increase the pH of the blood.

The major extracellular buffer in the blood and the interstitial fluid of vertebrates is the bicarbonate buffer system, described by the following equation:

\[ \text{H}_2\text{O} + \text{CO}_2 \rightarrow \text{H}_2\text{CO}_3 \rightarrow \text{H}^+ + \text{HCO}_3^- \]

Carbon dioxide from the tissues diffuses rapidly into red blood cells, where it is hydrated with water to form carbonic acid. This reaction is accelerated by carbonic anhydrase, an enzyme present in high concentrations in red blood cells. The carbonic acid formed dissociates into bicarbonate and hydrogen ions. Most of the bicarbonate ions diffuse into the plasma. Since the ratio of \( \text{H}_2\text{CO}_3 \) to dissolved \( \text{CO}_2 \) is constant at equilibrium, pH may be expressed in terms of bicarbonate ion concentration and partial pressure of \( \text{CO}_2 \) by means of the Henderson-Hasselbach equation:

\[ \text{pH} = \text{pk} + \log \left( \frac{\text{HCO}_3^-}{\text{aPCO}_2} \right) \]

The blood plasma of man normally has a pH of 7.40. Should the pH fall below 7.0 or rise above 7.8, irreversible damage may occur. Compensatory mechanisms for acid-base disturbances function to alter the ratio of \( \text{HCO}_3^- \) to \( \text{PCO}_2 \), returning the pH of the blood to normal. Thus, metabolic acidosis may be compensated for by hyperventilation and increased renal absorption of \( \text{HCO}_3^- \). Metabolic alkaliosis may be compensated for by hypoventilation and the excess of \( \text{HCO}_3^- \) in the urine (Johnson and Swanson, 1987). Renal mechanisms are usually sufficient to restore the acid-base balance (McEvoy, 1994). The uptake of sodium, via exposure to sodium carbonate, is much less than the uptake of sodium via food. Therefore, sodium carbonate is not expected to be systemically available in the body. Furthermore it should be realised that an oral uptake of sodium carbonate will result in a neutralisation in the stomach due to the gastric acid.

Acute toxicity

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Parameter</th>
<th>Method</th>
<th>Value</th>
<th>Exposure time</th>
<th>Species</th>
<th>Gender</th>
<th>Value</th>
<th>determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD50</td>
<td></td>
<td>2000 mg/kg</td>
<td></td>
<td>Rat</td>
<td>Male/female</td>
<td>Experimental value</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td></td>
<td>6000 mg/kg</td>
<td></td>
<td>Rabbit</td>
<td>Male</td>
<td>Experimental value</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>LC50</td>
<td></td>
<td>2.30 mg/l</td>
<td>2 h</td>
<td>Rat</td>
<td>Male</td>
<td>Experimental value</td>
<td></td>
</tr>
<tr>
<td>Conclusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Publication date: 2013-03-13</td>
<td></td>
</tr>
</tbody>
</table>

Date of revision: 2015-06-18
### Soda Ash (Sodium Carbonate)

Low acute toxicity by the oral route
Low acute toxicity by the dermal route
Low acute toxicity by the inhalation route

#### Corrosion/irritation

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Result</th>
<th>Method</th>
<th>Exposure time</th>
<th>Time point</th>
<th>Species</th>
<th>Value determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye</td>
<td>Irritating</td>
<td>EPA 16 CFR 1500.42</td>
<td>1; 2; 3; 4; 7; 14 days</td>
<td>Rabbit</td>
<td>Experimental value</td>
<td></td>
</tr>
<tr>
<td>Eye</td>
<td>Highly irritating</td>
<td>Equivalent to OECD 405</td>
<td>1; 24; 48; 72; 168 hours</td>
<td>Rabbit</td>
<td>Experimental value</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Not irritating</td>
<td>OECD 404</td>
<td>24; 48; 72 hours</td>
<td>Rabbit</td>
<td>Experimental value</td>
<td></td>
</tr>
<tr>
<td>Inhalation (aerosol)</td>
<td>Slightly irritating</td>
<td></td>
<td></td>
<td></td>
<td>Literature</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusion**
Causes serious eye irritation.
Not classified as irritating to the skin
Not classified as irritating to the respiratory system

#### Respiratory or skin sensitisation

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Result</th>
<th>Method</th>
<th>Exposure time</th>
<th>Observation time</th>
<th>Species</th>
<th>Gender</th>
<th>Value determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not determined, exemption according to REACH</td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not determined, exemption according to REACH</td>
</tr>
</tbody>
</table>

**Conclusion**
Not classified as sensitizing for skin
Not classified as sensitizing for inhalation

#### Specific target organ toxicity

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Parameter</th>
<th>Method</th>
<th>Value</th>
<th>Organ</th>
<th>Effect</th>
<th>Exposure time</th>
<th>Species</th>
<th>Gender</th>
<th>Value determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No relevant data available</td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Conclusion**
Supplementary classification for repeated dose toxicity was not considered necessary

#### Mutagenicity (in vitro)

<table>
<thead>
<tr>
<th>Result</th>
<th>Method</th>
<th>Test substrate</th>
<th>Effect</th>
<th>Value determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>Other</td>
<td>Escherichia coli</td>
<td></td>
<td>Experimental value</td>
</tr>
<tr>
<td>Ambiguous</td>
<td>OECD 471</td>
<td>Bacteria (S.typhimurium)</td>
<td></td>
<td>Read-across</td>
</tr>
</tbody>
</table>

#### Mutagenicity (in vivo)

<table>
<thead>
<tr>
<th>Result</th>
<th>Method</th>
<th>Exposure time</th>
<th>Test substrate</th>
<th>Gender</th>
<th>Organ</th>
<th>Value determination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
</tbody>
</table>

#### Carcinogenicity

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Parameter</th>
<th>Method</th>
<th>Value</th>
<th>Exposure time</th>
<th>Species</th>
<th>Gender</th>
<th>Value</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
</tbody>
</table>

Publication date: 2013-03-13
Date of revision: 2015-06-18
Soda Ash (Sodium Carbonate)

Reproductive toxicity

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Method</th>
<th>Value</th>
<th>Exposure</th>
<th>Gender</th>
<th>Effect</th>
<th>Organ</th>
<th>Value determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental NOAEL</td>
<td>Other</td>
<td>≥245 mg/kg</td>
<td>Rat</td>
<td>Male</td>
<td>NOAEL</td>
<td></td>
<td>Experimental value</td>
</tr>
<tr>
<td>Effects on fertility</td>
<td></td>
<td>bw/day</td>
<td></td>
<td></td>
<td>No effect</td>
<td></td>
<td>Not determined, exemption according to REACH</td>
</tr>
</tbody>
</table>

Conclusion CMR

Not classified for carcinogenicity
Not classified for mutagenic or genotoxic toxicity
Not classified for reprotoxic or developmental toxicity

Toxicity other effects

| sodium carbonate       | No (test)data available |

Chronic effects from short and long-term exposure


SECTION 12: Ecological information

12.1 Toxicity:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Method</th>
<th>Value</th>
<th>Duration</th>
<th>Species</th>
<th>Test design</th>
<th>Fresh/salt</th>
<th>Value determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity fishes</td>
<td>LC50</td>
<td>300 mg/l</td>
<td>96 h</td>
<td>Lepomis</td>
<td></td>
<td></td>
<td>Experimental value</td>
</tr>
<tr>
<td>Acute toxicity invertebrates</td>
<td>EC50</td>
<td>200 - 227 mg/l</td>
<td>48 h</td>
<td>Ceriodaphnia sp.</td>
<td></td>
<td></td>
<td>Experimental value</td>
</tr>
<tr>
<td>Toxicity algae and other aquatic plants</td>
<td>EC50</td>
<td>242 mg/l</td>
<td>5 day(s)</td>
<td>Algae</td>
<td></td>
<td></td>
<td>Experimental value</td>
</tr>
</tbody>
</table>

Conclusion

Slightly harmful to fishes (LC50(96h) 100-1000 mg/l)
Practically non-toxic to algae (EC50 >100 mg/l)
Slightly harmful to invertebrates (EC50 (48h): 100 - 1000 mg/l)

pH shift
Not classified as dangerous for the environment according to the criteria of Directive 67/548/EEC
Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2 Persistence and degradability:

Biodegradability: not applicable

12.3 Bioaccumulative potential:

| sodium carbonate       | Low potential for bioaccumulation (Log Kow < 4) |

12.4 Mobility in soil:

Biodegradability: not applicable

12.5 Results of PBT and vPvB assessment:

The criteria of PBT and vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006 do not apply to inorganic substances.

12.6 Other adverse effects:
Soda Ash (Sodium Carbonate)

sodium carbonate

Global warming potential (GWP)
Not included in the list of substances which may contribute to the greenhouse effect (Regulation (EC) No 842/2006)

Ozone-depleting potential (ODP)
Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1 Waste treatment methods:

13.1.1 Provisions relating to waste


16 05 07* (discarded inorganic chemicals consisting of or containing dangerous substances). Depending on branch of industry and production process, also other waste codes may be applicable. Hazardous waste according to Directive 2008/98/EC.

13.1.2 Disposal methods

Precipitate/make insoluble. Remove to an authorized dump (Class I). Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. May be discharged to wastewater treatment installation. Do not discharge into drains or the environment.

13.1.3 Packaging/Container


15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1 UN number: Transport Not subject

14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Hazard identification number

Class

Classification code

14.4 Packing group:

Packing group

Labels

14.5 Environmental hazards:

Environmentally hazardous substance mark No

14.6 Special precautions for user:

Special provisions

Limited quantities

Rail (RID)

14.1 UN number: Transport Not subject

14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Hazard identification number

Class

Classification code

14.4 Packing group:

Packing group

Labels

14.5 Environmental hazards:

Environmentally hazardous substance mark No

14.6 Special precautions for user:

Special provisions

Limited quantities

Inland waterways (ADN)

14.1 UN number: Transport Not subject

Publication date: 2013-03-13

Date of revision: 2015-06-18
### Soda Ash (Sodium Carbonate)

14.2 UN proper shipping name: 

14.3 Transport hazard class(es): 

<table>
<thead>
<tr>
<th>Class</th>
<th>Classification code</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

14.4 Packing group: 

<table>
<thead>
<tr>
<th>Packing group</th>
<th>Labels</th>
</tr>
</thead>
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<tr>
<td></td>
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</table>

14.5 Environmental hazards: 

<table>
<thead>
<tr>
<th>Environmentally hazardous substance mark</th>
<th>No</th>
</tr>
</thead>
</table>

14.6 Special precautions for user: 

<table>
<thead>
<tr>
<th>Special provisions</th>
<th>Limited quantities</th>
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</table>

#### Sea (IMDG/IMSBC)

14.1 UN number: Transport: Not subject

14.2 UN proper shipping name: 

14.3 Transport hazard class(es): 

<table>
<thead>
<tr>
<th>Class</th>
<th></th>
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<tbody>
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14.4 Packing group: 

<table>
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<tr>
<th>Packing group</th>
<th>Labels</th>
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</table>

14.5 Environmental hazards: 

<table>
<thead>
<tr>
<th>Marine pollutant</th>
<th>Environmentally hazardous substance mark</th>
<th>No</th>
</tr>
</thead>
</table>

14.6 Special precautions for user: 

<table>
<thead>
<tr>
<th>Special provisions</th>
<th>Limited quantities</th>
</tr>
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<td></td>
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</tbody>
</table>

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Annex II of MARPOL 73/78

#### Air (ICAO-TI/IATA-DGR)

14.1 UN number: Transport: Not subject

14.2 UN proper shipping name: 

14.3 Transport hazard class(es): 

<table>
<thead>
<tr>
<th>Class</th>
<th></th>
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14.4 Packing group: 

<table>
<thead>
<tr>
<th>Packing group</th>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14.5 Environmental hazards: 

<table>
<thead>
<tr>
<th>Environmentally hazardous substance mark</th>
<th>No</th>
</tr>
</thead>
</table>

14.6 Special precautions for user: 

<table>
<thead>
<tr>
<th>Special provisions</th>
<th>Passenger and cargo transport: limited quantities: maximum net quantity per packaging</th>
</tr>
</thead>
<tbody>
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</table>

### SECTION 15: Regulatory information

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

**European legislation:**

- European drinking water standards
- Maximum concentration in drinking water: 200 mg/l (sodium) (Directive 98/83/EC)
- Volatile organic compounds (VOC)
- Not applicable (inorganic)

**National legislation The Netherlands**

<table>
<thead>
<tr>
<th>Waste identification (the)</th>
<th>Water Bezwaarlijkheid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1997.18a (Netherlands) 1997, Statuten, 97</td>
</tr>
</tbody>
</table>

**National legislation Germany**

<table>
<thead>
<tr>
<th>TA-Luft</th>
<th>WGK</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA-Luft Klasse 5.2.1</td>
<td>1; Classification water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 2)</td>
</tr>
</tbody>
</table>

Publication date: 2013-03-13
Date of revision: 2015-06-18
**Soda Ash** (Sodium Carbonate)

### National legislation France
- No data available

### National legislation Belgium
- No data available

### 15.2 Chemical safety assessment:
A chemical safety assessment has been performed.

## SECTION 16: Other information

Information based on classification according to CLP


**Labels**

- Irritant

**R-phrases**
- 36  Irritating to eyes

**S-phrases**
- (02)  (Keep out of the reach of children)
- 22  Do not breathe dust
- 26  In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

**Full text of any R-phrases referred to under headings 2 and 3:**
- R36  Irritating to eyes

**Full text of any H-statements referred to under headings 2 and 3:**
- H319  Causes serious eye irritation.

(*) = INTERNAL CLASSIFICATION BY DSC

**PBT-substances** = persistent, bioaccumulative and toxic substances
**DSD** = Dangerous Substance Directive
**DPD** = Dangerous Preparation Directive
**CLP (EU-GHS)** = Classification, labelling and packaging (Globally Harmonised System in Europe)

The information in this safety data sheet is based on data and samples provided to DSC. The sheet was written to the best of our ability and according to the state of knowledge at the time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written every 1-4 years. Old versions must be destroyed. Unless indicated otherwise, word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. DSC does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability conditions as stated in your DSC licence agreement or when this is failing the general conditions of DSC. All intellectual property rights to this sheet are the property of DSC and its distributors and reproducers are limited. Consult the mentioned agreement/conditions for details.

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