SAFETY DATA SHEET
SODA LIME GRANULAR

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

1.1. Product identifier

Product name: SODA LIME GRANULAR
CAS number: 8006-28-8

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

Use of substance / mixture: PC21: Laboratory chemicals.

1.3. Details of the supplier of the safety data sheet

Company name: Elemental Microanalysis Ltd
1 Hameldown Road Okehampton
Okehampton
Devon
EX20 1UB
United Kingdom
Tel: +44(0)183754446
Fax: +44(0)183754544
Email: info@microanalysis.co.uk

1.4. Emergency telephone number

Emergency tel: +44 (0) 7990 767375 (24 hours)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Skin Corr. 1A: H314; STOT SE 3: H335

Most important adverse effects: Causes severe skin burns and eye damage. May cause respiratory irritation.

2.2. Label elements

Label elements:
Hazard statements: H314: Causes severe skin burns and eye damage.
H335: May cause respiratory irritation.
Hazard pictograms: GHS05: Corrosion
GHS07: Exclamation mark

Signal words: Danger
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P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with water.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

<table>
<thead>
<tr>
<th>CALCIUM HYDROXIDE</th>
<th>EINECS</th>
<th>CAS</th>
<th>PBT / WEL</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>215-137-3</td>
<td>1305-62-0</td>
<td>-</td>
<td>Skin Irrit. 2: H315; Eye Dam. 1: H318; STOT SE 3: H335</td>
<td>&gt;90%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SODIUM HYDROXIDE</th>
<th>EINECS</th>
<th>CAS</th>
<th>PBT / WEL</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>215-185-5</td>
<td>1310-73-2</td>
<td>-</td>
<td>Skin Corr. 1A: H314</td>
<td>1-10%</td>
</tr>
</tbody>
</table>

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

Ingestion: Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

[cont...]
4.2. Most important symptoms and effects, both acute and delayed

| Skin contact: | Blistering may occur. Progressive ulceration will occur if treatment is not immediate. |
| Eye contact: | Corneal burns may occur. May cause permanent damage. |
| Ingestion: | Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose. |
| Inhalation: | There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing. |

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

4.3. Indication of any immediate medical attention and special treatment needed

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Corrosive. In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Notify the police and fire brigade immediately. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Do not create dust.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

[cont...]
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SODA LIME GRANULAR

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of dust in the air. Wash hands after working with substance.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

CALCIUM HYDROXIDE

Workplace exposure limits: Respirable dust

<table>
<thead>
<tr>
<th>State</th>
<th>8 hour TWA</th>
<th>15 min. STEL</th>
<th>8 hour TWA</th>
<th>15 min. STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>-</td>
<td>-</td>
<td>5mg/m3</td>
<td>-</td>
</tr>
</tbody>
</table>

SODIUM HYDROXIDE

<table>
<thead>
<tr>
<th>State</th>
<th>8 hour TWA</th>
<th>15 min. STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>-</td>
<td>2 mg/m3</td>
</tr>
</tbody>
</table>

DNEL/PNEC Values

DNEL / PNEC: No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency. Respiratory protective device with particle filter. Particle filter class P3S (EN143).

Hand protection: Protective gloves. Nitrile gloves. Breakthrough time of the glove material > 8 hours.

Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Granules

Colour: Beige

Odour: Odourless

Evaporation rate: No data available.

Oxidising: No data available.
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SODA LIME GRANULAR

Solubility in water: No data available.
Viscosity: No data available.
Boiling point/range°C: No data available.
Melting point/range°C: No data available.
Flammability limits %: lower: No data available.
upper: No data available.
Flash point°C: No data available.
Part.coef. n-octanol/water: No data available.
Autoflammability°C: No data available.
Vapour pressure: No data available.
Relative density: No data available.
pH: Approx. 7
VOC g/l: No data available.

9.2. Other information
Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity
Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability
Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions
Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid
Conditions to avoid: Heat.

10.5. Incompatible materials
Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products
Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects
Hazardous ingredients:

SODIUM HYDROXIDE

<table>
<thead>
<tr>
<th>IPR</th>
<th>MUS</th>
<th>LD50</th>
<th>40 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORL</td>
<td>RBT</td>
<td>LDLO</td>
<td>500 mg/kg</td>
</tr>
</tbody>
</table>

[cont...]
Relevant hazards for product:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Route</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>DRM</td>
<td>Hazardous: calculated</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>OPT</td>
<td>Hazardous: calculated</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>INH</td>
<td>Hazardous: calculated</td>
</tr>
</tbody>
</table>

Symptoms / routes of exposure

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.
Eye contact: Corneal burns may occur. May cause permanent damage.
Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.
Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Hazardous ingredients:

**SODIUM HYDROXIDE**

<table>
<thead>
<tr>
<th>Species</th>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Daphnia magna</em></td>
<td>48H EC50</td>
<td>40.38  mg/l</td>
</tr>
<tr>
<td><em>FISH</em></td>
<td>96H LC50</td>
<td>125 mg/l</td>
</tr>
<tr>
<td><em>RAINBOW TROUT</em> (Oncorhynchus mykiss)</td>
<td>96H LC50</td>
<td>45.4 mg/l</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

[cont...]

Disposal of packaging: Dispose of in a regulated landfill site or other method for hazardous or toxic wastes.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

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

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information: according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

This safety data sheet is prepared in accordance with Commission Regulation (EC) No 1272/2008.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3:

H314: Causes severe skin burns and eye damage.
H315: Causes skin irritation.
H318: Causes serious eye damage.
H335: May cause respiratory irritation.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.