1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Sodium carbonate decahydrate
Product Number: 71030
Brand: Sigma-Aldrich
Supplier: Sigma-Aldrich Corporation
3059 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone: +1 630-325-5132
Fax: +1 630-325-5052
Emergency Phone #: (314) 776-6555
Preparation Information: Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview
OSHA Hazards
Irritant
GHS Classification
Eye irritation (Category 2A)
GHS Label elements, including precautionary statements
Pictogram

Signal word: Warning
Hazard statement(s): Causes serious eye irritation.
Precautionary statement(s): Keep out of reach of children. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

HMIS Classification
Health hazard: 2
Flammability: 0
Physical hazards: 0

NFPA Rating
Health hazard: 2
Fire: 0
Reactivity Hazard: 0

Potential Health Effects
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Eyes: Causes eye irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Soda
Formula: CNa9O3 · 10H2O
Molecular Weight: 289.14 g/mol

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
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<tbody>
<tr>
<td>Sodium carbonate decahydrate</td>
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<tr>
<td>CAS-No.</td>
<td>0132-02-1</td>
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<td>EC-No.</td>
<td>227-038-8</td>
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<tr>
<td>Index-No.</td>
<td>011-065-00-2</td>
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</tbody>
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4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If Inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Conditions of flammability
Not flammable or combustible.

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters
Wear self-contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products
Hazardous decomposition products formed under fire conditions: Carbon oxides, Sodium oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing dust.

Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed.
Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/P99 (US) or type ABEK-P3 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CE (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Immersion protection
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: > 480 min
Material tested: Dermat/RT (Aldrich 287772, Size M)

Splash protection
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: > 30 min
Material tested: Dermat/RT (Aldrich 287772, Size M)

Data source: XCL GmbH, D-38124 Eichenzell, phone +49 (0)6595 873000, e-mail sales@xcl.de, test method: EN374. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection
Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin and body protection
Inexpensive clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form: Crystalline
Colour: Colourless

Safety data
pH: 11.0 - 12.0 at 50 g/l at 25 °C (77 °F)
Melt point/freezing point: No data available
Boiling point: No data available
Flash point: Not applicable

Ignition temperature: No data available
Autoignition temperature: No data available
Lower explosion limit: No data available
Upper explosion limit: No data available
Vapour pressure: No data available
Density: 1.440 g/cm³ at 20 °C (68 °F)
Water solubility: Ca 143 g/l at 20 °C (68 °F)
Partition coefficient: n-octanol/water: No data available
Relative vapour density: No data available
Odour: No data available
Odour threshold: No data available
Evaporation rate: No data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
No data available

Conditions to avoid
Avoid moisture.

Materials to avoid
Strong acids, Aluminum

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions: Carbon oxides, Sodium oxides

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity
Oral LD50: No data available
Inhalation LC50: No data available
Dermal LD50: No data available

Other information on acute toxicity: No data available

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: No data available
Respiratory or skin sensitization: No data available
Germ cell mutagenicity: No data available
Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
no data available
Teratogenicity
no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available
Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available
Aspiration hazard
no data available
Potential health effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion: May be harmful if swallowed.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Eyes: Causes eye irritation.

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects
no data available

Additional Information
RTEDS: Not available

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards
Intact
SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards
Acute Health Hazard
Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components
Sodium carbonate dehydrate
CAS-No. 6132-02-1
Revision Date
New Jersey Right To Know Components
Sodium carbonate dehydrate
CAS-No. 6132-02-1
Revision Date
California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further Information
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