SAFETY DATA SHEET
Renewz

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

1.1 Product identifier
- Product name: Renewz
- Product description: Cleaning Products
- Recommended use: Industrial/Professional use

1.2 Relevant identified uses of the substance or mixture and uses advised against
This product should not be used for applications other than those recommended in Section 1 without first seeking the advice of the supplier.

1.3 Details of the supplier of the safety data sheet

Spectro B.V.
Grevelingenmeer 2
5347 JP Oss
Nederland
Tel: +31 (0)412-631956
www.spectro.nl

e-mail address of person responsible for this SDS: msds@spectro.nl

1.4 Emergency telephone number
National advisory body/Poison Center
Telephone number:

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
- Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
- Met. Corr. 1, H290
- Skin Corr. 1, H314
- Eye Dam. 1, H318

Ingredients of unknown toxicity: Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 15.2%

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

SECTION 2: Hazards identification

Hazard pictograms

Signal word: Danger
Hazard statements: May be corrosive to metals. Causes severe skin burns and eye damage.

Precautionary statements

Prevention: Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep only in original container.
Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER or physician. IF IN EYES: Immediately call a POISON CENTER or physician.
Storage: Store locked up.
Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients: Sodium hydroxide

Supplemental label elements

Special packaging requirements: Containers to be fitted with child-resistant fastenings
Tactile warning of danger: Not applicable.

2.3 Other hazards

Other hazards which do not result in classification: None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures: Mixture

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>w/w %</th>
<th>Classification</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CAS: 1310-73-2</td>
<td></td>
<td>Eye Dam. 1, H318</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index: 011-002-00-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC: 229-912-9</td>
<td></td>
<td>Skin Corr. 1B, H314</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAS: 10213-79-3</td>
<td></td>
<td>Eye Dam. 1, H318</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index: 014-010-00-8</td>
<td></td>
<td>STOT SE 3, H335</td>
<td></td>
</tr>
<tr>
<td></td>
<td>REACH #: 01-2119488530-36</td>
<td>≤3</td>
<td>Eye Dam. 1, H318</td>
<td>[1]</td>
</tr>
<tr>
<td></td>
<td>EC: 500-220-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAS: 68515-73-1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
|                         | Silicic acid (H2SiO3), disodium salt, pentahydrate | ≤1 | Skin Irrit. 2, H315 | [
|                         | REACH #: 01-2119449811-37 | ≤3 | Aquatic Acute 1, H400 (M=1) | |
|                         | EC: 229-912-9 | | See Section 16 for the full text of the H statements declared above. | |

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SECTION 3: Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact: Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: Causes serious eye damage.
Inhalation: No known significant effects or critical hazards.
Skin contact: Causes severe burns.
Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms
SECTION 4: First aid measures

Eye contact
- Adverse symptoms may include the following:
  - Pain
  - Watering
  - Redness

Inhalation
- No specific data.

Skin contact
- Adverse symptoms may include the following:
  - Pain or irritation
  - Redness
  - Blisters may occur

Ingestion
- Adverse symptoms may include the following:
  - Stomach pains

Notes to physician
- Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
- Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media
- None known.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
- Decomposition products may include the following materials:
  - Metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters
- Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters
- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
- No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders
- If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions
- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SECTION 6: Accidental release measures

6.3 Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Absorb spillage to prevent material damage. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections

See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in a corrosion resistant container with a resistant inner liner. Store locked up. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations: Industrial/Professional use

Industrial sector specific solutions: This product should not be used for applications other than those recommended in Section 1 without first seeking the advice of the supplier.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Netherlands
No exposure limit value known.

Recommended monitoring procedures:
If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Type</th>
<th>Exposure</th>
<th>Value</th>
<th>Population</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>DNEL</td>
<td>Long term Inhalation</td>
<td>1 mg/m³</td>
<td>Workers</td>
<td>Local</td>
</tr>
<tr>
<td>D-Glucopyranose, oligomers, decyl octyl glycosides</td>
<td>DNEL</td>
<td>Long term Inhalation</td>
<td>1 mg/m³</td>
<td>Consumers</td>
<td>Local</td>
</tr>
<tr>
<td>Silicic acid (H2SiO3), disodium salt, pentahydrate</td>
<td>DNEL</td>
<td>Long term Inhalation</td>
<td>1 mg/m³</td>
<td>Workers</td>
<td>Local</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Short term Inhalation</td>
<td>1 mg/m³</td>
<td>Consumers</td>
<td>Local</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Short term Inhalation</td>
<td>1 mg/m³</td>
<td>Workers</td>
<td>Local</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Dermal</td>
<td>1.49 mg/kg</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Inhalation</td>
<td>6.22 mg/m³</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Oral</td>
<td>0.74 mg/kg</td>
<td>Consumers</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Dermal</td>
<td>0.74 mg/kg</td>
<td>Consumers</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Inhalation</td>
<td>1.55 mg/m³</td>
<td>Consumers</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Dermal</td>
<td>595000 mg/kg bw/day</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Inhalation</td>
<td>420 mg/m³</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Oral</td>
<td>35.7 mg/kg bw/day</td>
<td>Consumers</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Inhalation</td>
<td>124 mg/m³</td>
<td>Consumers</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Dermal</td>
<td>357000 mg/kg bw/day</td>
<td>Consumers</td>
<td>Systemic</td>
</tr>
</tbody>
</table>

PNECs

Date of issue/Date of revision : 12/7/2018    Date of previous issue : 7/5/2017    Version : 5.02
**SECTION 8: Exposure controls/personal protection**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Compartment Detail</th>
<th>Value</th>
<th>Method Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicic acid (H2SiO3), disodium salt, pentahydrate</td>
<td>Fresh water</td>
<td>7.5 mg/l</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>1 mg/l</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Sewage Treatment Plant</td>
<td>1000 mg/l</td>
<td>-</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

**Appropriate engineering controls**: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Individual protection measures**

**Hygiene measures**: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: chemical splash goggles and/or face shield.

**Skin protection**

**Hand protection**: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): Nitirubber >0.35 mm thickness.

**Body protection**: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: chemical-resistant protective suit

**Other skin protection**: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

**Environmental exposure controls**: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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9.1 Information on basic physical and chemical properties

**Appearance**

- **Physical state**: Liquid.
- **Color**: Colored
- **Odor**: Perfumed
- **pH, ca.**: 13.5
- **Melting point/freezing point**: <5°C
SECTION 9: Physical and chemical properties

Initial boiling point and boiling range: >100°C

Flash point: Not available.

Evaporation rate: Not available.

Flammability (solid, gas): Not available.

Upper/lower flammability or explosive limits: Not available.

Vapor pressure: Not available.

Vapor density: Not available.

Relative density: 1.15

Solubility(ies): Easily soluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water: Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

Flash point: Not available.

Evaporation rate: Not available.

Partition coefficient: n-octanol/water: Not available.

9.2 Other information

VOC content

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Product as-supplied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without volume exclusion</td>
<td>0.84 g/l</td>
</tr>
<tr>
<td></td>
<td>0.073 % (w/w)</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

10.1 Reactivity: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability: The product is stable.

10.3 Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid: No specific data.

10.5 Incompatible materials: Reactive or incompatible with the following materials:
- acids
- metals

10.6 Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicic acid (H2SiO3), disodium salt, pentahydrate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1349 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>D-Glucopyranose, oligomers, decyl octyl glycosides</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary: Not available.

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>Eyes - Severe irritant</td>
<td>Monkey</td>
<td>-</td>
<td>24 hours 1 Percent</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>400 Micrograms</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 50 Micrograms</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>1 Percent</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>0.5 minutes</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Human</td>
<td>-</td>
<td>24 hours 2 Percent</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary: Not available.

Sensitizer

Conclusion/Summary: Not available.

Mutagenicity

Conclusion/Summary: Not available.

Carcinogenicity

Conclusion/Summary: Not available.

Reproductive toxicity

Conclusion/Summary: Not available.

Teratogenicity

Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicic acid (H2SiO3), disodium salt, pentahydrate</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.
SECTION 11: Toxicological information

Information on the likely routes of exposure

Potential acute health effects
- Inhalation: No known significant effects or critical hazards.
- Ingestion: No known significant effects or critical hazards.
- Skin contact: Causes severe burns.
- Eye contact: Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics
- Inhalation: No specific data.
- Ingestion: Adverse symptoms may include the following: stomach pains.
- Skin contact: Adverse symptoms may include the following: pain or irritation, redness, blistering may occur.
- Eye contact: Adverse symptoms may include the following: pain, watering, redness.

Potential chronic health effects
Not available.

Conclusion/Summary
- Not available.
- General: No known significant effects or critical hazards.
- Carcinogenicity: No known significant effects or critical hazards.
- Mutagenicity: No known significant effects or critical hazards.
- Teratogenicity: Not available.
- Developmental effects: No known significant effects or critical hazards.
- Fertility effects: No known significant effects or critical hazards.
- Other information: Not available.

SECTION 12: Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>Acute LC50 125 ppm Fresh water</td>
<td>Fish - Gambusia affinis - Adult</td>
<td>96 hours</td>
</tr>
<tr>
<td>Silicic acid (H2SiO3), disodium salt, pentahydrate</td>
<td>LC50 2320 mg/l</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
<tr>
<td>D-Glucopyranose, oligomers, decyl octyl glycosides</td>
<td>EC50 27.2 mg/l</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>EC50 &gt;100 mg/l</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 100.81 mg/l</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Conclusion/Summary: Not available.

12.2 Persistence and degradability

Conclusion/Summary: Not available.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
<tr>
<td>D-Glucopyranose, oligomers, decyl octyl glycosides</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential
SECTION 12: Ecological information

Not available.

12.4 Mobility in soil

Soil/water partition coefficient ($K_{oc}$)

Mobility

Not available.

12.5 Results of PBT and vPvB assessment

PBT

Not applicable.

vPvB

Not applicable.

12.6 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste

The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal

The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions

This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>ADR/RID</th>
<th>ADN</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1824</td>
<td>UN1824</td>
<td>UN1824</td>
<td>UN1824</td>
<td>UN1824</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.2 UN proper shipping name</th>
<th>14.3 Transport hazard class(es)</th>
<th>14.4 Packing group</th>
<th>14.5 Environmental hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>SODIUM HYDROXIDE SOLUTION</td>
<td>8</td>
<td>II</td>
<td>No.</td>
</tr>
<tr>
<td>SODIUM HYDROXIDE SOLUTION</td>
<td>8</td>
<td>II</td>
<td>No.</td>
</tr>
<tr>
<td>SODIUM HYDROXIDE SOLUTION</td>
<td>8</td>
<td>II</td>
<td>No.</td>
</tr>
<tr>
<td>Sodium hydroxide solution</td>
<td>8</td>
<td>II</td>
<td>No.</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision: 12/7/2018  Date of previous issue: 7/5/2017  Version: 5.02  11/13
SECTION 14: Transport information

<table>
<thead>
<tr>
<th>Additional information</th>
<th>Hazard identification number</th>
<th>-</th>
<th>Emergency schedules (EmS)</th>
<th>Passenger and Cargo Aircraft</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>80</td>
<td></td>
<td>F-A, S-B</td>
<td>Quantity limitation: 1 L</td>
</tr>
<tr>
<td></td>
<td>Limited quantity</td>
<td>1 L</td>
<td></td>
<td>Packaging instructions: 851</td>
</tr>
<tr>
<td></td>
<td>Tunnel code</td>
<td>(E)</td>
<td></td>
<td>Cargo Aircraft Only</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Quantity limitation: 30 L</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Packaging instructions: 855</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Limited Quantities - Passenger Aircraft</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Quantity limitation: 0.5 L</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Packaging instructions: Y840</td>
</tr>
</tbody>
</table>

14.6 Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV
None of the components are listed.

Substances of very high concern
None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles
Not applicable.

Other EU regulations

Declaration of ingredients according to Regulation 648/2004/EC on detergents

Annex VIIA - Labelling for Contents
Less than 5%: non-ionic surfactants, EDTA and salts thereof, perfumes.

National regulations

Germany
Hazard class for water: 1 Appendix No. 4

Netherlands
Water Discharge Policy (ABM): Harmful to aquatic organisms. Contains substances that are harmful to the aquatic environment. Abatement effort: A

Biocidal Products Directive: Not applicable.
SECTION 15: Regulatory information

Authorization number : Not available.
Product Specific Information : Not available.
Overige informatie : Not available.

15.2 Chemical Safety Assessment : Not yet complete.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms:
- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met. Corr. 1, H290</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>Skin Corr. 1, H314</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>Eye Dam. 1, H318</td>
<td>On basis of test data</td>
</tr>
</tbody>
</table>

References : Not available.

Full text of abbreviated H statements:
- H290 May be corrosive to metals.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H400 Very toxic to aquatic life.

Full text of classifications [CLP/GHS]:
- Aquatic Acute 1, H400: AQUATIC HAZARD (ACUTE) - Category 1
- Eye Dam. 1, H318: SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
- Met. Corr. 1, H290: CORROSIVE TO METALS - Category 1
- Skin Corr. 1, H314: SKIN CORROSION/IRRITATION - Category 1
- Skin Corr. 1A, H314: SKIN CORROSION/IRRITATION - Category 1A
- Skin Corr. 1B, H314: SKIN CORROSION/IRRITATION - Category 1B
- Skin Irrit. 2, H315: SKIN CORROSION/IRRITATION - Category 2
- STOT SE 3, H335: SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

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Version : 5.02
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