1 Identification

- Product identifier
  - Trade name: Viva Sol x
- Application of the substance / the mixture
  - Laundry
  - Detergent
- Details of the supplier of the safety data sheet
  - Manufacturer/Supplier:
    - SEITZ GmbH
    - Gutenbergstrasse 1 - 3
    - 65830 Kriftel / Germany
    - Tel. + 49(0) 6192-9948-0
    - Fax + 49(0) 6192-9948-99
    - order@seitz24.com
    - www.seitz24.com
- Information department:
  - CHEM-TEL Inc.
  - 1305 North Florida Ave
  - Tampa Florida 33602
- Emergency telephone number: 1-800-255-3924

2 Hazard(s) identification

- Classification of the substance or mixture
  - GHS05 Corrosion
    - Met. Corr. 1 H290 May be corrosive to metals.
    - Skin Corr. 1A H314 Causes severe skin burns and eye damage.
    - Eye Dam. 1 H318 Causes serious eye damage.

- Label elements
  - GHS label elements
    - The product is classified and labeled according to the Globally Harmonized System (GHS).
  - Hazard pictograms
    - GHS05

- Signal word Danger

- Hazard-determining components of labeling:
  - potassium hydroxide
  - C6 Alkyl glucoside
  - 1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-coco acyl derivs., hydroxides, inner salts

- Hazard statements
  - H290 May be corrosive to metals.
  - H314 Causes severe skin burns and eye damage.

- Precautionary statements
  - P260 Do not breathe mist/vapours/spray.
Trade name: Viva Sol x

P280 Wear protective gloves / eye protection.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.

· Other hazards
· Results of PBT and vPvB assessment
  · PBT: Not applicable.
  · vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

| CAS-No. | Components | <br> | <br>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 1310-58-3</td>
<td>potassium hydroxide</td>
<td>&lt;br&gt;</td>
<td>&lt;br&gt;</td>
</tr>
<tr>
<td>CAS: 54549-24-5</td>
<td>C6 Alkyl glucoside</td>
<td>&lt;br&gt;</td>
<td>&lt;br&gt;</td>
</tr>
<tr>
<td>CAS: 68139-30-0</td>
<td>1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-coco acyl derivs., hydroxides, inner salts</td>
<td>&lt;br&gt;</td>
<td>&lt;br&gt;</td>
</tr>
</tbody>
</table>

· Additional information For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

· Description of first aid measures
· General information
  Remove casualties from exposure.
  Keep unprotected persons away.
  Immediately remove any clothing soiled by the product.
· After inhalation
  Supply fresh air; consult doctor in case of complaints.
  In case of unconsciousness place patient stably in side position for transportation.
· After skin contact
  Immediately rinse with water.
  Seek medical treatment.
· After eye contact
  Rinse opened eye for several minutes under running water. Then consult a doctor.
· After swallowing
  Rinse out mouth and then drink plenty of water.
  Do not induce vomiting; immediately call for medical help.
· Information for doctor
· Most important symptoms and effects, both acute and delayed
  Causes severe skin burns and eye damage.
· Indication of any immediate medical attention and special treatment needed
  Symptomatic treatment
5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents** No further relevant information available.
- **Special hazards arising from the substance or mixture**
  Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
  Do not inhale explosion gases or combustion gases.
  Wear self-contained respiratory protective device.
- **Additional information**
  Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  Wear protective equipment. Keep unprotected persons away.
  Avoid contact with eyes and skin.
  Ensure adequate ventilation
- **Environmental precautions:** Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up:**
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Use neutralizing agent.
  Dispose of the collected material according to regulations.
- **Reference to other sections**
  See Section 7 for information on safe handling
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

- **Handling**
  - **Precautions for safe handling**
    Keep away from heat and direct sunlight.
    Avoid contact with eyes and skin.
    Ensure good ventilation/exhaustion at the workplace.
  - **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
  - **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
  - **Information about storage in one common storage facility:**
    Store away from foodstuffs.
    Do not store together with acids.
  - **Further information about storage conditions:**
    Protect from heat and direct sunlight.
    Store in cool, dry conditions in well sealed receptacles.
    Store receptacle in a well ventilated area.
Trade name: Viva Sol x

Protect from frost.
Time of storage: max. 24 month
- Specific end use(s) Laundry

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace:
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment
- General protective and hygienic measures
  The usual precautionary measures for handling chemicals should be followed.
  Do not eat, drink, smoke or sniff while working.
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing
  Wash hands before breaks and at the end of work.
  Avoid contact with the eyes and skin.
  Do not inhale gases / fumes / aerosols.
- Breathing equipment:
  Not necessary if room is well-ventilated.
  Use suitable respiratory protective device in case of insufficient ventilation (exceeding the workplace limit values, formation of aerosols).
- Protection of hands:
  Alkaline resistant gloves
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- Material of gloves
  Nitrile rubber, NBR
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- Penetration time of glove material
  The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection: Tightly sealed goggles.
- Body protection: Alkaline resistant protective clothing

9 Physical and chemical properties

- Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: Fluid
      - Color: Dark yellow
      - Odor: Product specific
    - Odor threshold: No further relevant information available.
Trade name: Viva Sol x

- pH-value (10 g/l) at 20 °C (68 °F): ~ 12.0
- Change in condition
  - Melting point/Melting range: undetermined
  - Boiling point/Boiling range: undetermined
- Flash point: Not applicable
- Flammability (solid, gaseous): No further relevant information available.
- Ignition temperature: No further relevant information available.
- Decomposition temperature: No further relevant information available.
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: No further relevant information available.
  - Upper: No further relevant information available.
- Oxidizing properties: No further relevant information available.
- Vapor pressure: No further relevant information available.
- Density at 20 °C (68 °F): ~ 1.42 g/cm³ (~ 11.85 lbs/gal) (ISO 2811)
- Relative density: No further relevant information available.
- Vapor density: No further relevant information available.
- Evaporation rate: No further relevant information available.
- Solubility in / Miscibility with Water: Fully miscible
- Partition coefficient (n-octanol/water): No further relevant information available.
- Viscosity:
  - dynamic: No further relevant information available.
  - kinematic: No further relevant information available.
- Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability
  - Stable under normal ambient conditions.
  - No decomposition if used and stored according to specifications.
- Possibility of hazardous reactions
  - Reacts with acids
  - Reacts with certain metals
  - Corrodes aluminium
- Conditions to avoid: No further relevant information available.
- Incompatible materials:
  - Acids
  - Certain metals
- Hazardous decomposition products: No dangerous decomposition products known
11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
    - LD/LC50 values that are relevant for classification:
      - CAS: 1310-58-3 potassium hydroxide
        - Oral LD50 273 mg/kg (rat)
      - on the skin: Causes severe skin burns and eye damage.
      - on the eye: Causes serious eye damage.
      - Sensitization: Based on available data, the classification criteria are not met.
      - Additional toxicological information:
        - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    - None of the ingredients is listed.
  - NTP (National Toxicology Program)
    - None of the ingredients is listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    - None of the ingredients is listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity:
    - CAS: 1310-58-3 potassium hydroxide
      - LC50 80 mg/l (Fish) (96 h; Gambusia affinis)
    - CAS: 54549-24-5 C6 Alkyl glucoside
      - EC50 > 100 mg/l (Aquatic plants, algae) (72 h; Scenedesmus quadricauda)
      - > 100 mg/l (Aquatic invertebrates) (48 h; Daphnia magna)
      - LC50 > 100 mg/l (Fish) (96 h; Oncorhynchus mykiss)

- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes:
    - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
    - Must not reach bodies of water or drainage ditch undiluted or unneutralized.
    - The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
* 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
  Contaminated adsorbent, soil, water must be disposed of in a permitted hazardous waste management facility. Recovered products may be reused, reprocessed or incinerated or must be treated in a permitted hazardous waste management facility. It is your duty to dispose of the chemical materials and/or their containers in accordance with the Clean Air Act, The Clean Water Act, RCRA, as well as applicable Federal, State, and local Regulations regarding disposal.

* 14 Transport information

- **UN-Number**
  - DOT, ADR, IMDG, IATA
  - UN1814

- **UN proper shipping name**
  - DOT
  - ADR
  - IMDG, IATA
  - Potassium hydroxide, solution
  - 1814 Potassium hydroxide, solution
  - POTASSIUM HYDROXIDE SOLUTION

- **Transport hazard class(es)**
  - DOT
  - Class
    - 8 Corrosive substances
  - Label
    - 8
  - ADR
  - Class
    - 8 (C5) Corrosive substances
  - Label
    - 8
  - IMDG, IATA
  - Class
    - 8 Corrosive substances
  - Label
    - 8
  - Packing group
    - DOT, ADR, IMDG, IATA
    - II

- **Environmental hazards:**
  - Not applicable.
## Safety Data Sheet
acc. to OSHA HCS

**Trade name:** Viva Sol x

<table>
<thead>
<tr>
<th>Special precautions for user</th>
<th>Warning: Corrosive substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danger code (Kemler)</td>
<td>80</td>
</tr>
<tr>
<td>EMS Number</td>
<td>F-A,S-B</td>
</tr>
<tr>
<td>Segregation groups</td>
<td>Alkalis</td>
</tr>
<tr>
<td>Stowage Category</td>
<td>A</td>
</tr>
<tr>
<td>Segregation Code</td>
<td>SG35 Stow &quot;separated from&quot; acids.</td>
</tr>
</tbody>
</table>

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

- Transport/Additional information:
  - DOT
    - Quantity limitations
      - On passenger aircraft/rail: 1 L
      - On cargo aircraft only: 30 L
  - ADR
    - Excepted quantities (EQ)
      - Code: E2
      - Maximum net quantity per inner packaging: 30 ml
      - Maximum net quantity per outer packaging: 500 ml
  - IMDG
    - Limited quantities (LQ)
      - 1L
    - Excepted quantities (EQ)
      - Code: E2
      - Maximum net quantity per inner packaging: 30 ml
      - Maximum net quantity per outer packaging: 500 ml
  - UN "Model Regulation":
    - UN 1814 POTASSIUM HYDROXIDE, SOLUTION, 8, II

### 15 Regulatory information

- Canadian substance lists
  - Canadian domestic substance list (DSL):
    - All ingredients are listed.
  - Canadian ingredient disclosure list (limit 0.1%):
    - None of the ingredients is listed.
  - Canadian ingredient disclosure list (limit 1%):
    - CAS: 1310-58-3 potassium hydroxide
- Sara
  - Section 355 (extremely hazardous substances):
    - None of the ingredients is listed.
  - Section 313 (specific toxic chemical listings):
    - None of the ingredients is listed.
- TSCA (Toxic Substances Control Act):
  - All ingredients are listed.
- Proposition 65
  - Chemicals known to cause cancer:
    - None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.

Chemicals known to cause developmental toxicity:
None of the ingredients is listed.

New Jersey Right-to-Know List:
CAS: 1310-58-3 potassium hydroxide

New Jersey Special Hazardous Substance List:
CAS: 1310-58-3 potassium hydroxide CO, R1

Pennsylvania Right-to-Know List:
CAS: 1310-58-3 potassium hydroxide

Pennsylvania Special Hazardous Substance List:
CAS: 1310-58-3 potassium hydroxide E

EPA (Environmental Protection Agency)
None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)
None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients is listed.

National regulations

Other regulations, limitations and prohibitive regulations

Please note:
The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws. The following specific information is made for the purpose of complying with numerous laws and regulations.

Other information:
The product has been designed for professional use only.

Date of preparation / last revision 05/23/2017 / 2

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
### Trade name: Viva Sol x

- **TLV:** Threshold Limit Value
- **PEL:** Permissible Exposure Limit
- **REL:** Recommended Exposure Limit
- **Met. Corr.1:** Corrosive to metals – Category 1
- **Skin Corr. 1A:** Skin corrosion/irritation – Category 1A
- **Eye Dam. 1:** Serious eye damage/eye irritation – Category 1

* Data compared to the previous version altered.