1. Product and Company Identification

Product Code: 00137
Product Name: REJUVENATE
Trade Name: REJUVENATE
Company Name: Stoller USA, Inc.
4001 W Sam Houston Pkwy N
Suite 100
Houston, TX 77043
Email address: stoller@stollerusa.com
Emergency Contact: Chemtrec
Phone Number: 1 (713)461-1493
1 (800)424-9300

Synonyms: Nitrogen and Potassium fertilizer solution.

2. Hazards Identification

Serious Eye Damage/Eye Irritation, Category 2B
Acute Toxicity: Skin, Category 5
Skin Corrosion/Irritation, Category 2
Acute Toxicity: Inhalation, Category 5
Specific Target Organ Toxicity (single exposure), Category 3
Acute Toxicity: Oral, Category 5
Specific Target Organ Toxicity (repeated exposure), Category 2

GHS Signal Word: Warning
GHS Hazard Phrases:
H303 - May be harmful if swallowed.
H313 - May be harmful in contact with skin.
H315 - Causes skin irritation.
H320 - Causes eye irritation.
H333 - May be harmful if inhaled.
H335 - May cause respiratory irritation.
H373 - May cause damage to organs through prolonged or repeated exposure.

GHS Precaution Phrases:
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P270 - Do not eat, drink or smoke when using this product.
P101 - If medical advice is needed, have product container or label at hand.
P233 - Keep container tightly closed.
P102 - Keep out of reach of children.

GHS Response Phrases:
P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 - Rinse mouth.
P302+352 - IF ON SKIN: Wash with plenty of soap and water.
P362 - Take off contaminated clothing and wash before re-use.
P332+313 - If skin irritation occurs, get medical advice/attention.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342+311 - If experiencing respiratory symptoms call a POISON CENTER or doctor/physician.
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove...
SAFETY DATA SHEET
REJUVENATE

GHS Storage and Disposal Phrases:
- P370+378 - In case of fire, use water, foam, carbon dioxide, dry chemicals to extinguish.
- P403+235 - Store in cool/well-ventilated place.
- P501 - Dispose of contents/container to treatment at a permitted facility or as advised by your local regulatory authority.

Potential Health Effects (Acute and Chronic):
- Chronic: Not known. Expected toxicity hazard: slight to moderate.

Inhalation: Prolonged exposure to vapors may cause sore throat and irritation of respiratory tract.
Skin Contact: May cause discomfort, skin irritation or rash unless treated promptly.
Eye Contact: Contact with product may cause mild to severe irritation, blurred vision.
Ingestion: May cause malaise, nausea. Large doses may cause gastrointestinal pains or cramps.

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>Concentration</th>
<th>RTECS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-58-3</td>
<td>Potassium hydroxide</td>
<td>5.25 -6.5 %</td>
<td>TT2100000</td>
</tr>
<tr>
<td>57-13-6</td>
<td>Urea</td>
<td>5.0 -5.5 %</td>
<td>YR6250000</td>
</tr>
</tbody>
</table>

4. First Aid Measures

Emergency and First Aid Procedures:
Victims of severe exposure to chemicals must be taken to health providing centers for medical attention. If necessary, also rescuers must be attended. Always bring with victim a copy of label and SDS of product to health professional.

In Case of Inhalation: Move patient to fresh air. Supplemental oxygen may be needed. Assure mucous does not obstruct airways. Seek medical attention if victim's breathing becomes difficult.

In Case of Skin Contact: Immediately wash affected area with abundant soap and water. Remove contaminated clothing, taking care not to impregnate eyes. Seek medical attention if irritation occurs.

In Case of Eye Contact: Holding eyelids apart, immediately flush eyes with running water for at least 15 minutes. Seek medical attention if severe irritation occurs.

In Case of Ingestion: Immediately contact a physician or poison control center for treatment advice. Victim should drink milk, egg whites or large quantities of water and be induced to vomiting. Never give anything by mouth to someone who is unconscious, having convulsions or unable to swallow.

Note to Physician: Symptomatic treatment.

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5. Fire Fighting Measures

Flash Pt:  N.A.
Explosive Limits:  LEL: N.A.  UEL: N.A.
Autoignition Pt:
Suitable Extinguishing Media: Use all means adequate to fight surrounding fire: water, foam, CO2, dry chemicals, etc.
Fire Fighting Instructions:  None specific for this product, however, it is suggested that firefighters wear self-contained breathing apparatus (SCBA) and full protective equipment, such as chemical resistant clothing.
Flammable Properties and Hazards:  Toxic fumes may be generated under fire conditions, or by contact with incompatible materials.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled:
In case of a large spill, protect people by clearing and isolating the affected area. Such releases should be responded to by trained personnel using pre-planned procedures. In the event of an incidental release, minimum Personal Protective Equipment must be worn: latex or rubber gloves and boots, goggles or full face-shield and coveralls or long sleeved shirt and pants.
It is necessary to contain the spill into the smallest area possible by diking, scooping, shoveling, etc., and recover liquid into an appropriate container for salvage or later use, labeling it accordingly. If product is clean, use it as intended, following original label directions; should it get contaminated, salvage for proper disposal as waste. Absorb residual product onto dry carrier such as dirt, sand or any other absorbent material, then put in covered, labeled containers and dispose of as dry waste in accordance with Federal, State and Local waste disposal regulations.

7. Handling and Storage

Precautions To Be Taken in Handling:  All personnel who handle this material should be trained to work with it safely. Avoid breathing vapors or mist; use in well-ventilated location. Wear appropriate protective equipment. Empty containers may contain residual liquid or vapors and therefore should be handled the same as full containers. Product must be kept in its original container, if repackaging for any reason, use vented caps. Keep away from reach of children and pets. Store away from food, feed, clothing materials and living quarters.

Precautions To Be Taken in Storing:  Inspect all incoming containers before storage to ensure all are properly labeled and not damaged. Store in a cool, dry place, away from direct sunlight, sources of intense heat or where freezing is possible. Whenever possible, place chemicals on secondary containers or diked area. Keep containers tightly closed when not in use.

8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>OSHA TWA</th>
<th>ACGIH TWA</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-58-3</td>
<td>Potassium hydroxide</td>
<td></td>
<td>TLV: 2 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CEIL: 2 mg/m³</td>
<td></td>
</tr>
<tr>
<td>57-13-6</td>
<td>Urea</td>
<td></td>
<td>TLV: 10 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>
Respiratory Equipment (Specify Type): A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/OSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Eye Protection: Safety glasses should be worn in any type of operation with chemicals.

Protective Gloves: Impervious gloves.

Other Protective Clothing: Long-sleeved shirt, long pants and protective shoes should be worn as a good safety practice.

Engineering Controls (Ventilation etc.): General ventilation is usually adequate. Local exhaust should be used if needed for safe, comfortable working conditions. An eye bath and washing facilities should be readily available.

Work/Hygienic/Maintenance Practices: As a general rule, do not eat, drink, smoke, and/or chew gum or tobacco when handling chemicals. Wash thoroughly after handling this product. Remove all dirty or contaminated clothing and wash it before reusing.

### 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical States:</th>
<th>[ ] Gas</th>
<th>[ X ] Liquid</th>
<th>[ ] Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance and Odor:</td>
<td>Clear amberish color.</td>
<td>Slight, vinegar-like odor.</td>
<td></td>
</tr>
<tr>
<td>pH:</td>
<td>4.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting Point:</td>
<td>N.A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>100.00 C (212.0 F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash Pt:</td>
<td>N.A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>Similar to water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosive Limits:</td>
<td>LEL: N.A.</td>
<td>UEL: N.A.</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure (vs. Air or mm Hg):</td>
<td>Not known</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Density (vs. Air = 1):</td>
<td>Not known</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Gravity (Water = 1):</td>
<td>1.16 - 1.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Volatile:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autoignition Pt:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 10. Stability and Reactivity

| Stability: | Unstable [ ] Stable [ X ] |
| Conditions To Avoid - Instability: | High heat. Mixture with incompatible materials. |
| Incompatibility - Materials To Avoid: | Strong oxidizing agents. |
| Hazardous Decomposition or Byproducts: | Ammonia gas, oxides of nitrogen. |
| Possibility of Hazardous Reactions: | Will occur [ ] Will not occur [ X ] |
| Conditions To Avoid - | |

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11. Toxicological Information

**Toxicological Information:** Reproductive Toxicity: The components of this product are not reported to produce toxic reproductive effects in humans. However, urea is being investigated as a reproductive effector.

Mutagenicity: The components of this product are not reported to produce mutagenic effects in humans. However, they are being investigated as mutagenic agents.

Embryotoxicity:
The components of this product are not reported to produce embryotoxic effects in humans.

Teratogenicity: The components of this product are not reported to produce teratogenic effects in humans.


**Carcinogenicity/Other Information:**

No component is listed as a carcinogenic by IARC, NTP, OSHA, and ACGIH.

**Carcinogenicity:**

- NTP? No
- IARC Monographs? No
- OSHA Regulated? No

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-58-3</td>
<td>Potassium hydroxide</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>57-13-6</td>
<td>Urea</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

12. Ecological Information

**General Ecological Information:**
The available data on this material does not indicate any undue hazard to the environment under anticipated use and storage. All work practices must be aimed at preventing environmental contamination. Any waste due to spillage or leakage should be contained and disposed of accordingly, see above under Section 6 "Accidental Release Measures." Due to its nutritional nature, may cause eutrophication if discharged in bodies of water.

To aid our customers in complying with regulatory requirements, SARA Title III hazard categories for this product are indicated in Section 15. If the word "YES" is marked next to any category, this product may be reportable by you under the requirements of 40 CFR Part 370. Please consult those regulations for details.
13. Disposal Considerations

Waste Disposal Method: Waste disposal must be done following all Federal, State and Local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local waste regulatory authority.

14. Transport Information

GHS Classification: Serious Eye Damage/Eye irritation, Category 2B - Warning! Causes eye irritation
Acute Toxicity: Skin, Category 5 - Warning! May be harmful in contact with skin
Skin Corrosion/Irritation, Category 2 - Warning! Causes skin irritation
Acute Toxicity: Inhalation, Category 5 - Warning! May be harmful if inhaled
Specific Target Organ Toxicity (single exposure), Category 3 - Warning! May cause respiratory irritation, or may cause drowsiness and dizziness
Acute Toxicity: Oral, Category 5 - Warning! May be harmful if swallowed
Specific Target Organ Toxicity (repeated exposure), Category 2 - Warning! May cause damage to organs through prolonged or repeated exposure

LAND TRANSPORT (US DOT):
- DOT Proper Shipping Name: Non-Regulated. Trade Name: REJUVENATE
- DOT Hazard Class:
- UN/NA Number:

MARINE TRANSPORT (IMDG/IMO):
- IMDG/IMO Shipping Name: Non-Regulated. Trade Name: REJUVENATE

AIR TRANSPORT (ICAO/IATA):
- ICAO/IATA Shipping Name: Non-Regulated. Trade Name: REJUVENATE
- Additional Transport Information:
  - Placards / Markings: Not Applicable
  - Reportable Quantity (RQ): 5000 lb (2270 kg) for Phosphoric acid; for this solution, Not Applicable.

15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>S. 302 (EHS)</th>
<th>S. 304 RQ</th>
<th>S. 313 (TRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-58-3</td>
<td>Potassium hydroxide</td>
<td>No</td>
<td>Yes 1000 LB</td>
<td>No</td>
</tr>
<tr>
<td>57-13-6</td>
<td>Urea</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections

311/312 as indicated:
- [ ] Yes [ ] No Acute (immediate) Health Hazard
- [ ] Yes [ ] No Chronic (delayed) Health Hazard
- [ ] Yes [ ] No Fire Hazard
- [ ] Yes [ ] No Sudden Release of Pressure Hazard
- [ ] Yes [ ] No Reactive Hazard

Other US EPA or State Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>Other US EPA or State Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-58-3</td>
<td>Potassium hydroxide</td>
<td>CAA HAP, ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: Title 8</td>
</tr>
<tr>
<td>57-13-6</td>
<td>Urea</td>
<td>CAA HAP, ODC: No; CWA NPDES: No; TSCA: Yes - Inventory, 8A CAIR; CA PROP.65: No; CA TAC, Title 8: No</td>
</tr>
</tbody>
</table>

International Regulatory Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>International Regulatory Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-58-3</td>
<td>Potassium hydroxide</td>
<td>Canadian DSL: Yes; Canadian NDSL: No; Mexico INQS: Yes; REACH: Yes - (R), (P)</td>
</tr>
<tr>
<td>57-13-6</td>
<td>Urea</td>
<td>Canadian DSL: Yes; Canadian NDSL: No; Mexico INQS: Yes; REACH: Yes - (R), (P)</td>
</tr>
</tbody>
</table>
Rejuvinate

Regulatory Information Statement:
If this product contains components designated as CERCLA Reportable Quantity (RQ) Substance, Section 103 of CERCLA requires the "person in charge" of a facility or vessel, as soon as he or she has knowledge of a release of a hazardous substance in an amount equal to or greater than an RQ, to report the release immediately to the National Response Center in Washington, DC. The NRC number is 1-800-424-8802, or 1 (202) 267-2675.

16. Other Information

Revision Date: 06/01/2015

Hazard Rating System:

Flammability Instability

Health Special Hazard

NFPA:

Additional Information About This Product:
Stoller USA, Inc., believes the information contained in this Safety Data Sheet is accurate based on the information provided by reputable suppliers of our raw materials. However, Stoller USA does not guarantee their accuracy or completeness. The information contained herein is furnished without warranty of any kind, whether expressed or implied, as to the safety of the goods, the merchantability of the goods, or the fitness of the goods for any particular purpose. Users should consider these data only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers. Stoller USA assumes no responsibility for results obtained or for incidental or consequential damages arising from the use of goods and data.