SAFETY DATA SHEET

1. Identification
Product identifier: KlenzAll™ Cleaner Concentrate
Other means of identification: None.
Recommended use: Cleaner for natural stone & tile surfaces.
Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information Company
Name: LATICRETE MIDDLE EAST LLC
Address: P.O. Box. 86028, Ras Al Khaimah, United Arab Emirates
Telephone: +971 7 244 6396
Contact person: Mohmed Rafiq. M
Website: www.laticrete.com www.laticrete.me

2. Hazard(s) identification
Physical hazards: Skin corrosion/irritation
Category: 1B
Health hazards: Serious eye damage/eye irritation
Category: 1
Environmental hazards: Hazardous to the aquatic environment, long-term hazard
Category: 3
OSHA defined hazards: Not classified.

Label elements
Signal word: Danger
Hazard statement: Causes severe skin burns and eye damage. Harmful to aquatic life with long lasting effects.
Precautionary statement
Prevention: Do not breathe mist or vapor. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Avoid release to the environment.
Response: If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.
Storage: Store locked up.
Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients
Mixtures
<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Aminoethanol</td>
<td>141-43-5</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

Hazard(s) not otherwise classified (HNOC): None known.
### Composition comments
All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

**Inhalation**
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

**Skin contact**
Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention immediately.

**Eye contact**
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

**Ingestion**
Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention.

**Most important symptoms/effects, acute and delayed**
Permanent eye damage including blindness could result. Headaches, nausea and vomiting.

**Indication of immediate medical attention and special treatment needed**
Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

**General information**
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

**Suitable extinguishing media**
Water fog. Dry chemical powder. Carbon dioxide (CO2).

**Unsuitable extinguishing media**
Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical**
Fire may produce irritating, corrosive and/or toxic gases.

**Special protective equipment and precautions for firefighters**
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions**
Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.

**General fire hazards**
No unusual fire or explosion hazards noted.

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

**Methods and materials for containment and cleaning up**
Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

**Environmental precautions**
Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS. Avoid release to the environment. Do not discharge into drains, water courses or onto the ground. Environmental manager must be informed of all major releases.

### 7. Handling and storage

**Precautions for safe handling**
Avoid inhalation of vapors and contact with skin, eyes and clothing. Use with adequate ventilation. Do not taste or swallow. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**
Keep container tightly closed. Store in a cool and well-ventilated place. Protect from freezing. Store away from incompatible materials (See Section 10).
8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Aminoethanol (CAS 141-43-5)</td>
<td>PEL</td>
<td>6 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 ppm</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Aminoethanol (CAS 141-43-5)</td>
<td>STEL</td>
<td>6 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>3 ppm</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Aminoethanol (CAS 141-43-5)</td>
<td>STEL</td>
<td>15 mg/m3</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>8 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 ppm</td>
</tr>
<tr>
<td>3 ppm</td>
</tr>
</tbody>
</table>

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles). Wear a full-face respirator, if needed.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing. Frequent change of gloves is advisable.

Respiratory protection

In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Light yellow liquid.

Physical state

Liquid.

Form

Liquid.

Color

Light yellow.

Odor

Mild.

Odor threshold

Not available.

pH

11.5 - 12.5

Melting point/freezing point

Not available.

Initial boiling point and boiling range

212 °F (100 °C)

Flash point

Does not flash

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.
Flammability limit - upper (%) Not available.
Explosive limit - lower (%) Not available.
Explosive limit - upper (%) Not available.
Vapor pressure Not available.
Vapor density Not available.
Relative density 1.003
Solubility(ies)
   Solubility (water) Not available.
Partition coefficient (n-octanol/water) Not available.
Auto-ignition temperature Not available.
Decomposition temperature > 392 °F (> 200 °C)
Viscosity No data available.
Other information
   VOC (Weight %) 2.8 %

10. Stability and reactivity
Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability Material is stable under normal conditions.
Possibility of hazardous reactions Hazardous polymerization does not occur.
Conditions to avoid Heat, flames and sparks.
Incompatible materials Acids. Strong oxidizing agents.

11. Toxicological information
Information on likely routes of exposure
   Inhalation In high concentrations, vapors may be irritating to the respiratory system.
   Skin contact Causes severe skin burns.
   Eye contact Causes serious eye damage.
   Ingestion May cause discomfort if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics Permanent eye damage including blindness could result. Headaches, nausea and vomiting.

Information on toxicological effects
Acute toxicity May cause discomfort if swallowed.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Aminoethanol (CAS 141-43-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>1025 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>1715 mg/kg</td>
</tr>
<tr>
<td>Alcohol Ethoxylate (CAS Trade Secret)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>200 - 5000 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>1100 mg/kg</td>
</tr>
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</table>
Components | Species | Test Results
---|---|---
**Ethoxylated Quaternary Amine (CAS Trade Secret)**

<table>
<thead>
<tr>
<th><strong>Acute</strong></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LD50</strong></td>
<td>Rat</td>
<td>580 mg/kg</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
Causes severe skin burns and eye damage.

**Serious eye damage/eye irritation**
Causes serious eye damage.

**Respiratory or skin sensitization**

| **Respiratory sensitization** | No data available. |
| **Skin sensitization** | Not a skin sensitizer. |

**Germ cell mutagenicity**
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Not listed.

**Reproductive toxicity**
No data available.

**Specific target organ toxicity - single exposure**
No data available.

**Specific target organ toxicity - repeated exposure**
No data available.

**Aspiration hazard**
Not classified.

**Chronic effects**
Prolonged or repeated contact may dry skin and cause dermatitis. May cause damage to liver and kidney.

### 12. Ecological information

**Ecotoxicity**
Harmful to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Aminoethanol (CAS 141-43-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Algae</strong></td>
<td>EC50</td>
<td>Selenastrum capricornutum (new name Pseudokirchnerella subca</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Crustacea</strong></td>
<td>EC50</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fish</strong></td>
<td>LC50</td>
<td>Cyprinus carpio</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
The product is readily biodegradable.

**Bioaccumulative potential**
Not likely to bioaccumulate in aquatic organisms.

<table>
<thead>
<tr>
<th><strong>Partition coefficient n-octanol / water (log Kow)</strong></th>
<th>-1.31</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Aminoethanol (CAS 141-43-5)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Mobility in soil</strong></th>
<th>Not available.</th>
</tr>
</thead>
</table>

**Other adverse effects**
The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

### 13. Disposal considerations

**Disposal instructions**
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazardous waste code**
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products**
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging
Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

<table>
<thead>
<tr>
<th>DOT</th>
<th>UN number</th>
<th>UN2491</th>
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</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>Ethanolamine solutions</td>
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</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Label(s)</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, SDS and emergency procedures before handling.</td>
<td></td>
</tr>
<tr>
<td>Special provisions</td>
<td>IB3, T4, TP1</td>
<td></td>
</tr>
<tr>
<td>Packaging exceptions</td>
<td>154</td>
<td></td>
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<tr>
<td>Packaging non bulk</td>
<td>203</td>
<td></td>
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<tr>
<td>Packaging bulk</td>
<td>241</td>
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IATA

<table>
<thead>
<tr>
<th>IATA</th>
<th>UN number</th>
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<tbody>
<tr>
<td>UN proper shipping name</td>
<td>Ethanolamine solution</td>
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<tr>
<td>Transport hazard class(es)</td>
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<tr>
<td>Class</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Subsidiary risk</td>
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<td></td>
</tr>
<tr>
<td>Packing group</td>
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<td></td>
</tr>
<tr>
<td>Environmental hazards</td>
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<tr>
<td>ERG Code</td>
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<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, SDS and emergency procedures before handling.</td>
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</tbody>
</table>

IMDG

<table>
<thead>
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<td>ETHANOLAMINE SOLUTION</td>
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<td>Transport hazard class(es)</td>
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<td>Class</td>
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</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Packing group</td>
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<td></td>
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<tr>
<td>Environmental hazards</td>
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<td></td>
</tr>
<tr>
<td>Marine pollutant</td>
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<td></td>
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<tr>
<td>EmS</td>
<td>F-A, S-B</td>
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</tr>
<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, SDS and emergency procedures before handling.</td>
<td></td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
<td>Not available.</td>
<td></td>
</tr>
</tbody>
</table>

General information
IATA classification is not relevant as the material is not transported by air.

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.
### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**
- Immediate Hazard - Yes
- Delayed Hazard - No
- Fire Hazard - No
- Pressure Hazard - No
- Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**
Not listed.

**SARA 311/312 Hazardous chemical**
Yes

**SARA 313 (TRI reporting)**
Not regulated.

### Other federal regulations

- **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
  Not regulated.
- **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**
  Not regulated.
- **Safe Drinking Water Act (SDWA)**
  Not regulated.

### US state regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

- **US. Massachusetts RTK - Substance List**
  2-Aminoethanol (CAS 141-43-5)
- **US. New Jersey Worker and Community Right-to-Know Act**
  2-Aminoethanol (CAS 141-43-5)
- **US. Pennsylvania Worker and Community Right-to-Know Law**
  2-Aminoethanol (CAS 141-43-5)
- **US. Rhode Island RTK**
  Not regulated.

- **US. California Proposition 65**
  Not Listed.

### International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
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</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
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</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
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</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>No</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>No</td>
</tr>
</tbody>
</table>

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

### 16. Other information, including date of preparation or last revision

| Issue date | 08-January-2015 |
| Revision date | - |
| Version # | 01 |
NFPA ratings

List of abbreviations

References

- HSDB® - Hazardous Substances Data Bank
- Registry of Toxic Effects of Chemical Substances (RTECS)

Disclaimer

The information in this (M)SDS was obtained from sources which we believe are reliable but cannot guarantee. Additionally, your use of this information is beyond our control and may be beyond our knowledge. Therefore, the information is provided without any representation or warranty express or implied.