SAFETY DATA SHEET

1. Identification

Product identifier: L&M Lion Hard
Other means of identification: Not available.
Recommended use of the chemical and restrictions on use
  Recommended use: Concrete hardener.
  Restrictions on use: Not available.

Details of manufacturer or importer

Manufacturer
  Company Name: LATICRETE International
  Address: 1 Laticrete Park, N
  Bethany, CT 06524
  Telephone: (203)-393-0010
  Contact person: Steve Fine
  Website: www.laticrete.com
  Emergency phone number: Call CHEMTREC day or night
    USA/Canada - 1.800.424.9300
    Mexico - 1.800.681.9531
    Outside USA/Canada - 1.703.527.3887

Supplier
  Company Name: LATICRETE Australia
  Address: P.O. Box 508
    Virginia Business Mail Centre
    29 Telford Street
    VIRGINIA QLD 4014
    AUSTRALIA
  Telephone: (61) (7) 3865-1599
  Website: www.laticrete.com
  Emergency phone number: 1.703.527.3887

2. Hazard(s) identification

Classification of the hazardous chemical
  Physical hazards: Not classified.
  Health hazards: Serious eye damage/eye irritation
  Environmental hazards: Not classified.

Label elements, including precautionary statements

Hazard symbol(s)
  Exclamation mark

Signal word: Warning

Hazard statement(s): Causes skin irritation. Causes serious eye irritation.

Precautionary statement(s)
  Prevention: Wash thoroughly after handling. Wear protective gloves/eye protection/face protection.
  Response: IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.
  Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Mixture</th>
<th>Identity of chemical ingredients</th>
<th>CAS number and other unique identifiers</th>
<th>Concentration of ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Silicic acid, lithium salt</td>
<td>12627-14-4</td>
<td>8 - 10</td>
</tr>
</tbody>
</table>

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

Description of necessary first aid measures

- **Inhalation**: No specific first aid measures noted.
- **Skin contact**: Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Get medical attention.
- **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.
- **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 if any discomfort continues.

Personal protection for first-aid responders
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Symptoms caused by exposure
Irritation of eyes.

Medical attention and special treatment
Provide general supportive measures and treat symptomatically.

5. Fire-fighting measures

- **Extinguishing media**
  - Suitable extinguishing media: Water spray, foam, dry powder or carbon dioxide.
  - Unsuitable extinguishing media: Water. Do not use water jet as an extinguisher, as this will spread the fire.

- **Specific hazards arising from the chemical**
  - By heating and fire, irritating vapors/gases may be formed.

- **Special protective equipment and precautions for fire fighters**
  - Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.
  - Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.

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

- **Hazchem code**
  - Not available.

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

6. Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - **For non-emergency personnel**: Keep unnecessary personnel away. 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.
  - **For emergency responders**: Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
  - **Environmental precautions**: 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.
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.

Other issues relating to spills and releases

Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS. Clean up in accordance with all applicable regulations.

7. Handling and storage

Precautions for safe handling

Do not breathe mist. Do not get in eyes, on skin, on clothing. Use with adequate ventilation. 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. Store away from incompatible materials (See Section 10).

8. Exposure controls and personal protection

Control parameters

Follow standard monitoring procedures.

Occupational exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

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

Appropriate engineering controls

Provide eyewash station.

Individual protection measures, for example personal protective equipment (PPE)

Eye/face protection

Wear safety glasses with side shields (or goggles). Face-shield.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing. Wear chemical protective equipment that is specifically recommended by the manufacturer.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Hygiene measures

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

Clear liquid.

Physical state

Liquid.

Form

Liquid.

Color

Clear.

Odor

Odorless.

Odor threshold

Not available.

pH

11.3

Melting point/freezing point

Not applicable.

Initial boiling point and boiling range

Not applicable.

Flash point

Non flammable.

Evaporation rate

Not applicable.

Flammability (solid, gas)

Not applicable.

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 applicable.
Vapor density Not applicable.
Relative density 1.39
Solubility(ies)
   Solubility (water) Soluble.
Partition coefficient (n-octanol/water) No data available.
Auto-ignition temperature Not available.
Decomposition temperature Not available.
Viscosity Not available.

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 Will not occur.
Conditions to avoid Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials Strong oxidizing agents.
Hazardous decomposition products Carbon oxides. Lithium oxides Silicon oxides.

11. Toxicological information
Information on possible routes of exposure
   Ingestion Ingestion may cause irritation and malaise.
   Inhalation No inhalation hazard under normal conditions. High mist concentrations may cause irritation of respiratory tract.
   Skin contact Causes skin irritation.
   Eye contact Causes serious eye irritation.
Symptoms related to exposure Irritation of eyes.
Acute toxicity May cause discomfort if swallowed.
Skin corrosion/irritation Causes skin irritation.
Serious eye damage/irritation Causes serious eye irritation.
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.
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 No data available.
Chronic effects Lithium salts: Repeated ingestion of lithium salts may cause renal damage, central nervous system disturbances, and electrolyte imbalance.

12. Ecological information
Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability No data available.
Bioaccumulative potential No data available.
Partition coefficient
n-octanol / water (log Kow)
No data available.

Mobility in soil
Not available.

Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal methods
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.

Residual waste
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). Avoid discharge into water courses or onto the ground.

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

ADG
Not regulated as dangerous goods.

RID
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable.

15. Regulatory information

Safety, health and environmental regulations

National regulations
No poison schedule number allocated. This Safety Data Sheet was prepared in accordance with the Code of Practice on Preparation of Safety Data Sheets for Hazardous Chemicals.

Australia Medicines & Poisons Appendix A
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix B
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix C
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix D
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix E
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix F
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix G
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix H
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix I
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix J
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix K
Poisons schedule number not allocated.
Australia Medicines & Poisons Schedule 2
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 3
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 4
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 5
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 6
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 7
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 8
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 9
Poisons schedule number not allocated.

High Volume Industrial Chemicals (HVIC)
Not listed.

Importation of Ozone Deleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)
Not listed.

National Pollutant Inventory (NPI) substance reporting list
Not listed.

Prohibited Carcinogenic Substances
Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)
Not listed.

Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)
Not listed.

Restricted Carcinogenic Substances
Not regulated.

International regulations

Stockholm Convention
Not applicable.

Rotterdam Convention
Not applicable.

Kyoto protocol
Not applicable.

Montreal Protocol
Not applicable.

Basel Convention
Not applicable.

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

*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

Issue date: 13-August-2014

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

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