1. Identification

Product identifier: LATICRETE Blue 92 Anti-Fracture Membrane
Other means of identification: Not available.
Recommended use: Anti-Fracture Membrane
Recommended restrictions: None known.

Manufacturer / Importer / Supplier / Distributor information

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

2. Hazard(s) identification

Physical hazards: Not classified.
Health hazards: Specific target organ toxicity, repeated exposure
OSHA defined hazards: Not classified.

Label elements

Signal word: Warning
Hazard statement: May cause damage to organs (Kidney) through prolonged or repeated exposure.
Precautionary statement
Prevention: Do not breathe mist or vapor.
Response: Get medical advice/attention if you feel unwell.
Storage: Store away from incompatible materials.
Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC): Not classified.

Environmental hazards: Hazardous to the aquatic environment, acute hazard
Hazardous to the aquatic environment, long-term hazard

Supplemental information

Hazard statement: Harmful to aquatic life with long lasting effects.
Precautionary statement
Prevention: Avoid release to the environment.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol</td>
<td>107-21-1</td>
<td>1 - 2</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
<td>0.8 - 1.2</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>0.3 - 0.6</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

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
Wash skin with soap and water. Get medical attention if symptoms occur.

Eye contact
Flush eyes thoroughly with water for at least 15 minutes. Get medical attention if symptoms persist.

Ingestion
Rinse mouth. Do not induce vomiting. Get medical attention if any discomfort continues.

Most important symptoms/effects, acute and delayed
Symptoms include redness, itching and pain.

Indication of immediate medical attention and special treatment needed
Treat symptomatically.

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
Alcohol resistant foam. 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
During fire, gases hazardous to health may be formed.

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
In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear appropriate protective equipment and clothing during clean-up. 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.

Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.

Environmental precautions
Environmental manager must be informed of all major releases.

7. Handling and storage

Precautions for safe handling
Do not breathe mist or vapor. 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.

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>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium Dioxide (CAS 13463-67-7)</td>
<td>PEL</td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td>Zinc oxide (CAS 1314-13-2)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m3</td>
<td>Fume.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
</tbody>
</table>
### US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol (CAS 107-21-1)</td>
<td>Ceiling</td>
<td>100 mg/m³</td>
<td>Aerosol.</td>
</tr>
<tr>
<td>Titanium Dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Zinc oxide (CAS 1314-13-2)</td>
<td>STEL</td>
<td>10 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

### US NIOSH Pocket Guide to Chemical Hazards: Ceiling Limit Value and Time Period (if specified)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc oxide (CAS 1314-13-2)</td>
<td>Ceiling</td>
<td>15 mg/m³</td>
<td>Dust.</td>
</tr>
</tbody>
</table>

### US NIOSH Pocket Guide to Chemical Hazards: Recommended exposure limit (REL)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc oxide (CAS 1314-13-2)</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td>Fume.</td>
</tr>
</tbody>
</table>

### US NIOSH Pocket Guide to Chemical Hazards: Short Term Exposure Limit (STEL)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc oxide (CAS 1314-13-2)</td>
<td>STEL</td>
<td>10 mg/m³</td>
<td>Fume.</td>
</tr>
</tbody>
</table>

### Biological limit values

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

### Appropriate engineering controls

Provide adequate ventilation and minimize the risk of inhalation of vapors.

### Individual protection measures, such as personal protective equipment

- **Eye/face protection**: Risk of contact: Wear protective gloves and goggles/face shield.
- **Skin protection**:
  - **Hand protection**: Wear appropriate chemical resistant gloves.
  - **Other**: Wear appropriate chemical resistant clothing.
- **Respiratory protection**: In case of insufficient ventilation, wear 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**: Blue liquid.
- **Physical state**: Liquid.
- **Form**: Liquid.
- **Color**: Blue.
- **Odor**: Styrene butadiene rubber.
- **Odor threshold**: Not available.
- **pH**: 8 - 9
- **Melting point/freezing point**: 32 °F (0 °C)
- **Initial boiling point and boiling range**: 212 °F (100 °C)
- **Flash point**: Not available.
- **Evaporation rate**: Not available.
- **Flammability (solid, gas)**: Not available.
- **Upper/lower flammability or explosive limits**: Not available.
  - **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  1.18
Solubility(ies)  Soluble in water.
Partition coefficient (n-octanol/water)  Not 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  No dangerous reaction known under conditions of normal use.
Conditions to avoid  Heat, flames and sparks.
Incompatible materials  Oxidizing agents.
Hazardous decomposition products  Carbon dioxide (CO2). Carbon monoxide.

11. Toxicological information

Information on likely routes of exposure
- **Ingestion**  May cause discomfort if swallowed.
- **Inhalation**  In high concentrations, vapors may be irritating to the respiratory system.
- **Skin contact**  May cause skin irritation.
- **Eye contact**  May cause eye irritation.

**Symptoms related to the physical, chemical and toxicological characteristics**
Symptoms include redness, itching and pain.

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>Ethylene glycol (CAS 107-21-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>9530 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>4700 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>May cause skin irritation on prolonged or repeated contact.</td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>May cause eye irritation on direct contact.</td>
<td></td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>No data available.</td>
<td></td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Not a skin sensitizer.</td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.</td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Inhalation of titanium dioxide dust may cause cancer, however due to the physical form of the product, inhalation of dust is not likely.</td>
<td></td>
</tr>
</tbody>
</table>

**IARC Monographs. Overall Evaluation of Carcinogenicity**
Titanium Dioxide (CAS 13463-67-7)  2B Possibly carcinogenic to humans.

Reproductive toxicity  No data available.
Specific target organ toxicity - single exposure  No data available.
Specific target organ toxicity - repeated exposure  May cause damage to organs (Kidney) through prolonged or repeated exposure by ingestion.
Aspiration hazard  Not classified.
Chronic effects  No data available.
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>Ethylene glycol (CAS 107-21-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish EC50</td>
<td>Fathead minnow (Pimephales promelas)</td>
<td>8050 mg/l, 96 hours</td>
</tr>
<tr>
<td>Titanium Dioxide (CAS 13463-67-7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea EC50</td>
<td>Water flea (Daphnia magna)</td>
<td>&gt; 1000 mg/l, 48 hours</td>
</tr>
<tr>
<td>Fish LC50</td>
<td>Mummichog (Fundulus heteroclitus)</td>
<td>&gt; 1000 mg/l, 96 hours</td>
</tr>
<tr>
<td>Zinc oxide (CAS 1314-13-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea LC50</td>
<td>Water flea (Daphnia magna)</td>
<td>0.098 mg/l, 48 Hours</td>
</tr>
</tbody>
</table>

Persistence and degradability

No data is available on the degradability of this product.

Bioaccumulative potential

No data available for this product.

Partition coefficient n-octanol / water (log Kow)

Ethylene glycol (CAS 107-21-1) -1.36

Mobility in soil

The product is soluble in water.

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 instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. 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.

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

Not regulated as a hazardous material by DOT.

IATA

Not regulated as a dangerous good.

IMDG

Not regulated as a dangerous good.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

This substance/mixture is not intended to be transported in bulk.

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.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Ethylene glycol (CAS 107-21-1) LISTED
Zinc oxide (CAS 1314-13-2) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No
SARA 302 Extremely hazardous substance: No
SARA 311/312 Hazardous chemical: Yes
SARA 313 (TRI reporting):

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol</td>
<td>107-21-1</td>
<td>1 - 2</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>0.3 - 0.6</td>
</tr>
</tbody>
</table>

Other federal regulations:
- **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
  Ethylene glycol (CAS 107-21-1)
- **Clean Air Act (CAA) Section 112(r) Accident Release Prevention (40 CFR 68.130)**
  Not regulated.
- **Safe Drinking Water Act (SDWA)**
  Not regulated.
- **Food and Drug Administration (FDA)**
  Not regulated.

US state regulations:
- **WARNING**: This product contains a chemical known to the State of California to cause cancer.

  US. Massachusetts RTK - Substance List
  - Ethylene glycol (CAS 107-21-1)
  - Titanium Dioxide (CAS 13463-67-7)
  - Zinc oxide (CAS 1314-13-2)

  US. New Jersey Worker and Community Right-to-Know Act
  - Ethylene glycol (CAS 107-21-1)
  - Zinc oxide (CAS 1314-13-2)
  - 500 lbs

  US. Pennsylvania RTK - Hazardous Substances
  - Ethylene glycol (CAS 107-21-1)
  - Titanium Dioxide (CAS 13463-67-7)
  - Zinc oxide (CAS 1314-13-2)
  - 500 lbs

  US. Rhode Island RTK
  - Ethylene glycol (CAS 107-21-1)
  - Zinc oxide (CAS 1314-13-2)

  US. California Proposition 65
  - **WARNING**: This product contains a chemical known to the State of California to cause cancer.

  US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
  - Titanium Dioxide (CAS 13463-67-7)

**International Inventories**

Country(s) or region | Inventory name                                                                 | On inventory (yes/no)* |
---------------------|--------------------------------------------------------------------------------|------------------------|
Australia            | Australian Inventory of Chemical Substances (AICS)                             | Yes                    |
Canada               | Domestic Substances List (DSL)                                                 | No                     |
Canada               | Non-Domestic Substances List (NDSL)                                             | Yes                    |
China                | Inventory of Existing Chemical Substances in China (IECSC)                      | Yes                    |
Europe               | European Inventory of Existing Commercial Chemical Substances (EINECS)         | Yes                    |
Europe               | European List of Notified Chemical Substances (ELINCS)                         | No                     |
Japan                | Inventory of Existing and New Chemical Substances (ENCS)                       | No                     |
Korea                | Existing Chemicals List (ECL)                                                  | Yes                    |
New Zealand          | New Zealand Inventory                                                           | Yes                    |
Philippines          | Philippine Inventory of Chemicals and Chemical Substances (PICCS)              | Yes                    |
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, including date of preparation or last revision

Issue date: 11-November-2013
Revision date: -
Version #: 01
References
HSDB® - Hazardous Substances Data Bank
Registry of Toxic Effects of Chemical Substances (RTECS)

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