1. **PRODUCT IDENTIFICATION**

TRADE NAME (as labeled): Guard PA Pure Part B

MANUFACTURER'S/ DISTRIBUTOR'S NAME: LATICRETE South East Asia Pte Ltd

38 Sungei Kadut,
Street 2 (Level2 A3),
Singapore 729245.

Phone number for additional information: (65) 6515 3028

Date prepared or revised: 21/08/2016

2. **COMPOSITION INGREDIENTS**

<table>
<thead>
<tr>
<th>Chemical Names</th>
<th>CAS NUMBERS</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homopolymer of Hexamethylene Diisocyanate</td>
<td>28182-81-2</td>
<td>74 - 80</td>
</tr>
<tr>
<td>Dipropylene glycol methyl ether acetate</td>
<td>88917-22-0</td>
<td>15 - 17</td>
</tr>
<tr>
<td>Hydroxyphenyl - benzotriazole derivatives</td>
<td>104810-48-2</td>
<td>0.8 - 1.5</td>
</tr>
<tr>
<td>Hydroxyphenyl-benzotriazole derivatives</td>
<td>104810-47-1</td>
<td>0.8 - 1.5</td>
</tr>
<tr>
<td>Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate</td>
<td>41556-26-7</td>
<td>0.6 - 0.9</td>
</tr>
<tr>
<td>Hexamethylene-1, 6-diisocyanate</td>
<td>822-06-0</td>
<td>0.5 - 1</td>
</tr>
<tr>
<td>Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate</td>
<td>82919-37-7</td>
<td>0.15 - 0.21</td>
</tr>
</tbody>
</table>
3. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE for each potential route of exposure. (Possible Longer Term Effects) : N/A

SIGNS AND SYMPTOMS OF EXPOSURE (Acute effects)

Inhaled   : May cause respiratory irritation.
Contact with skin or eyes : Causes serious eye and skin irritation.
Absorbed through skin : N/A
Swallowed  : Ingestion may cause irritation and malaise.

4. FIRST AID: EMERGENCY PROCEDURES

Eye Contact : Flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.

Skin Contact : Flush thoroughly with water for at least 15 minutes. If skin rash or an allergic skin reaction develops, get medical attention. Get medical attention if irritation develops and persists.

Inhaled : Move into fresh air and keep at rest. If breathing stops, provide artificial respiration. Get medical attention if any discomfort continues.

Swallowed : Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable take to hospital along with these instructions. Get medical attention if symptoms occur.

5. FIRE FIGHTING MEASURES

Flash Point method : N/A
Auto ignition temperature (°C) : N/A
Flammable limits in air, volume %: N/A

Fire extinguishing materials: Water spray, carbon dioxide, dry chemical or alcohol-resistant foam.

Special firefighting procedures: Do not use a solid water stream as it may scatter and spread fire. In case of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Move containers from fire area if you can do it without risk.

Unusual fire and explosion hazards: During fire, gases hazardous to health may be formed. Will burn if involved in a fire.

6. **ACCIDENTAL RELEASE MEASURES**

Spill response procedures (include employee protection measures): Keep unnecessary personnel away. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Large Spills: Remove sources of ignition. 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.

NOTE: Dispose of all wastes in accordance with federal, state and local regulations.

7. **HANDLING AND STORAGE**

Precautions for safe handling: Do not breathe mist or vapor. Do not smoke or use open fire or other sources of ignition. 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: Keep container tightly closed. Store in a cool and well-ventilated place.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls: Provide adequate ventilation and minimize the risk of inhalation of vapors.

Respiratory protection (type): In case of insufficient ventilation, wear suitable respiratory equipment.

Eye protection (type): Chemical goggles or safety glasses with side shields.

Gloves (specify material): Use impervious gloves, vinyl or rubber.

Other clothing and equipment: Wear clean, long-sleeved, body-covering clothing.

Work practices, hygienic practices: Maintain good housekeeping standards.

Other handling and storage requirements: N/A

Protective measures during maintenance of contaminated equipment: See above.

9. PHYSICAL AND CHEMICAL PROPERTIES

Relative density: 1.104

Melting point or range, °C: N/A

Boiling point or range, °C: 241.11 °C

PH: N/A

Specific gravity: N/A

Flash point: 102.8 °C

Solubility in water: Insoluble

Vapor density: 6.5

Vapor pressure: N/A
Appearance and odor: Liquid

HOW TO DETECT THIS SUBSTANCE (warning properties of substance as a gas, vapor, dust, or mist)

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions to avoid: Heat, flames and sparks.


Hazardous polymerization: Will not occur

11. TOXICOLOGY INFORMATION

Acute toxicity: Harmful if inhaled

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (CAS 41556-26-7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute Oral LD50</td>
<td>Rat</td>
<td>2369-4247 mg/kg</td>
</tr>
<tr>
<td>Dipropylene glycol methyl ether acetate (CAS 88917-22-0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>Rabbit</td>
<td>&gt;5000 mg/kg</td>
</tr>
<tr>
<td>Homopolymer of Hexamethylene Diisocyanate (CAS 28182-81-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation LC50</td>
<td>Rat</td>
<td>4.62 mg/l, 4 hours</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION
N/A

13. DISPOSAL CONSIDERATIONS

Dispose in compliance with local, state, and federal regulations.

14. TRANSPORT INFORMATION

DOT
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

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

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)
Hexamethylene-1, 6-diisocyanate (CAS 822-06-0) 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
Not listed.
SARA 311/312 Hazardous chemical
Yes
SARA 313 (TRI reporting)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number (% by wt.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexamethylene-1, 6-diisocyanate</td>
<td>822-06-0 (0.5-1)</td>
</tr>
</tbody>
</table>

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
- Hexamethylene-1, 6-diisocyanate (CAS 822-06-0)

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
Hexamethylene-1, 6-diisocyanate (CAS 822-06-0)

US. New Jersey Worker and Community Right-to-Know Act
Hexamethylene-1, 6-diisocyanate (CAS 822-06-0)

US. Pennsylvania Worker and Community Right-to-Know Law
Not listed.

US. Rhode Island RTK
Hexamethylene-1, 6-diisocyanate (CAS 822-06-0)

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</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>(AICS)</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Country(s) or region</td>
<td>Inventory name</td>
<td>On Inventory (yes/no)*</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
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<tr>
<td></td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
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<tr>
<td></td>
<td>European Inventory of Existing</td>
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<td></td>
<td>Commercial Chemical Substances (EINECS)</td>
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<td>European List of Notified Chemical Substances (ELINCS)</td>
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<tr>
<td>Europe</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
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<td></td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
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<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</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**

This information is furnished without warranty, representation, inducement or license of any kind; except that it is accurate to the best of our knowledge, or obtained from sources believed by us to be accurate.