MATERIAL SAFETY DATA SHEET

Reviewed & Approved by,
Dr. P. Arjunan, Vice President – R&D

1. IDENTIFICATION OF THE PRODUCT AND NAME OF THE COMPANY/UNDERTAKING

TRADE NAME : PUA-212 –Part A

MANUFACTURER'S NAME : MYK LATICRETE INDIA PVT. LTD
8-2-703/A, 4th floor, Leela Gopal Towers
Road No-12, Banjara Hills,
Hyderabad – 500034
Tel: +91-40-30413100

2. HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAMES</th>
<th>CAS NUMBERS</th>
<th>PERCENT</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>OTHER(SPECIFY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatty acids, C16-18 and C18-unsatd., polymers with C18-unsatd. Fatty acid dimers. Diethylenetriamine, polyethylene polyamines</td>
<td>2074648-56-7</td>
<td>5-40</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2, 4, 6-tris(dimethylamino)methylphenol</td>
<td>90-72-2</td>
<td>1-15</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

N/A = Not applicable or available

3. HEALTH HAZARD INFORMATION

Symptoms of overexposure for each potential route of exposure (Possible Longer Term Effects):
Repeated and/or prolonged exposure may cause allergic reaction/sensitization. Repeated and/or Prolonged exposures may result in: adverse respiratory effects (such as cough, tightness of chest or shortness Of breath); adverse skin effects (such as defatting rash, or irritation); adverse eye effects (such as conjunctivitis or corneal damage). Headache

SIGNS AND SYMPTOMS OF EXPOSURE (Acute effects)

This product is corrosive.
Ingestion – May cause gastrointestinal tract irritation and/or burning which may result in nausea, vomiting and diarrhea.
**Skin** – Moderately toxic by skin absorption. Corrosive with symptoms of reddening, itching, swelling, burning and possible permanent damage. May cause allergic skin reaction with symptoms of reddening, itching, swelling, and rash.

**Eyes** – Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage.

**Inhalation** – Although inhalation is unlikely, high concentrations may cause respiratory tract irritation. Corrosive with symptoms of coughing, burning, ulceration, and pain.

**Swallowed** - Not likely to occur in typical industrial environments however Ingestion of this material may be harmful or fatal.

Label elements Symbols:

- Danger

Hazard statements:

H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.

Other hazards:

- vPvB Substances: None - PBT Substances: None

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Asthma, Chronic respiratory disease (e.g. Bronchitis, Emphysema). Skin disorders and allergies.

**4. FIRST AID: EMERGENCY PROCEDURES**

**General advice:** Immediately remove contaminated clothing. If danger of loss of consciousness, place patient in recovery position and transport accordingly. Apply artificial respiration if necessary. First aid personnel should pay attention to their own safety.

**If inhaled:** Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

**If on skin:** Wash affected areas thoroughly with soap and water. Remove contaminated clothing. Immediate medical attention required.

**If in eyes:** In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

**If swallowed:** Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required. Affected tissues may occur following exposure. There is no specific
treatment. Clinical management is based on supportive treatment, which is similar to that for thermal burns.

5. FIRE AND EXPLOSION

Flash Point, °C : >65 (closed cup), Method used = PMCC
Auto ignition temperature, °F : N/A
Flammable limits in air, volume % : Lower (LEL): N/A  Upper (UEL): N/A
Fire extinguishing materials :
Water spray : √  Carbon dioxide : √  other: N/A
Foam : √  Dry chemical : √

Special fire fighting procedures : Retain expended liquids from fire fighting for later disposal. Firefighters should wear butyl rubber boots, gloves, and body suit and a self– contained breathing apparatus. Water spray is also useful in cooling fire-exposed tanks and in dispersing vapors.
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.
Unusual fire and explosion hazards: N/A

6. SPILL, LEAK, AND DISPOSAL PROCEDURES

Spill response procedures (include employee protection measures): Comply with all Federal, State and Local Regulations to remove nitrogen oxides, to remove carbon monoxide. Dispose of in an approved landfill if allowed locally.

Preparing wastes for disposal (container types, neutralization, etc.): See Above.
Methods and material for containment and cleaning up:
Wash with plenty of water

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

7. HANDLING AND STORAGE

7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapors and mists.
Don’t use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contained clothing should be changed before entering eating areas.
Do not eat or drink while working.

See also section 8 for recommended protective equipment.
7.2. Conditions for safe storage, including any incompatibilities
Avoid humidity and direct contact with water, cause it will develop foam
Keep away from food, drink and feed.
Incompatible materials: None in particular.

Instructions as regards storage premises: Adequately ventilated premises.

Segregate from acids and acid forming substances. Segregate from isocyanates. Segregate from epoxies.

8. EXPOSURES CONTROL AND PERSONAL PROTECTION

Ventilation and engineering controls: Adequate general and local exhaust

Respiratory protection (type) : In poorly ventilated areas, a cartridge mask National Institute for Occupational Safety and Health (NIOSH)approved for organic vapours is recommended.

Eye protection (type) : Chemical safety glasses, Splash-proof eye goggles. In emergency situations, use eye goggles with a full face shield.

Gloves (specify material) : Nitrile rubber gloves. In emergency situations, wear gloves with cuffs to prevent spread of material to area above the wrists.

Other clothing and equipment: Slicker Suite, Rubber Boots.

Work practices, hygienic practices: Wash at the end of each work shift and before eating, smoking or using the toilet. Launder or discard contaminated clothing. Discard contaminated leather articles. Examine protective gloves before using. Discard if find evidence of holes or cracks.

Other handling and storage requirements: N/A
Protective measures during maintenance of contaminated equipment: See above.

9. PHYSICAL PROPERTIES

Vapor density (air=1) : N/A Melting point or range, °F : N/A
Specific gravity@25 °C : 1.50 Boiling point or range, °C : 247
Solubility in water : Negligible to slightly soluble
Evaporation rate (butyl acetate = 1): N/A Vapor pressure, mmHg at 20°C : N/A
Appearance and odor : Pale yellow colored liquid with amine odor
Freezing point : N/A Viscosity, dynamic : 200000 cP
HOW TO DETECT THIS SUBSTANCE (Warning properties of substance as a gas, vapor, dust, or mist): N/A

10. REACTIVITY DATA

Stability: The product is stable if stored and handled as prescribed/indicated.

Incompatibility (materials to avoid): Oxidizing Agents (i.e., perchlorates, nitrates etc.,). Cleaning Solutions, such as chromerge (sulfuric acid/dichromate) and aqua regia. A reaction accompanied by large heat release occurs when the product is mixed with acids.

Hazardous decomposition products (Including combustion products): (from burning, heating, or reaction with other materials): N/A

Hazardous polymerization: Will not occur

11. TOXICOLOGY INFORMATION

Acute toxicity: Assessment of acute toxicity of moderate toxicity after short-term skin contact. Of moderate toxicity after single ingestion.

Oral Type of value: LD50 Species: rat (male)
Value: 1,030 mg/kg (similar to OECD guideline 401)

Inhalation Type of value: LC50 Species: rat
Value: > 5.01 mg/l

Irritation / corrosion:
Assessment of irritating effects: Corrosive! Damages skin and eyes.

Skin
Species: rabbit
Result: Corrosive.

Eye
Species: rabbit
Result: Risk of serious damage to eyes.

12. ECOLOGICAL INFORMATION

General notes:
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
13. DISPOSAL INFORMATION

Dispose of waste and residues in accordance with local authority requirements.

14. TRANSPORT INFORMATION

Land transport (USDOT)
Proper shipping name: Amines, liquid, corrosive, no’s. (Trientine);. Hazard class: 8, ID number: UN 2735, Packing group: III

Sea transport (IMDG)
Proper shipping name: Amines, liquid, corrosive, no’s. (Trientine);. Hazard class: 8, ID number: UN 2735, Packing group: III

Air transport (IATA/ICAO)
Proper shipping name: Amines, liquid, corrosive, no’s. (Trientine);. Hazard class: 8, ID number: UN 2735, Packing group: III

Environmental hazards (IATA) : Yes

15. REGULATORY INFORMATION

All components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.


EPA SARA Title 111 Section 312(40CFR370) hazard class Immediate Health Hazard.

EPA SARA Title 111 Section 312(40CFR370) toxic chemicals above “deminimls” levels Are none

16. OTHER INFORMATION

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