I. Product and Company Identification

Product Name: Piccolo® Reagent Disc - Renal Function Panel
A point of care blood diagnostic product

Part Numbers: 400-1027 (Single), 400-0027 (10 Pack)

Company Information: Abaxis, Inc.  Abaxis Europe GmbH
3240 Whipple Road  Bunsenstr. 9-11
Union City, CA 94587  64347 Griesheim, Germany
Tel: +1-510-675-6500  Tel: +49 6155 780 21 0 (EU)
Fax: +1-510-441-6150  Fax: +49 6155 780 21 111

Customer Support: +1-800-822-2947 (US),  Tel: +49 6155 780 21 0 (EU)
abaxis@abaxis.com  abaxis@abaxis.de

Emergency Number: +1-800-822-2947 (US)

II. Hazard Identification

OSHA Hazards: No known OSHA hazards

GHS Hazards: Not a dangerous or hazardous substance or preparation according to the Global Harmonized System (GHS).

CLP Hazards

H302 Harmful if swallowed
H315 Causes skin irritation
H335 May cause respiratory irritation
H401 To avoid risks to human health and the environment, comply with the instructions for use
P273 Avoid release to the environment
P235 Keep cool (2-8°C)
P308 + P313 If exposed or concerned: Get medical advice/attention
MATERIAL SAFETY DATA SHEET (MSDS)/SAFETY DATA SHEET (SDS)
Renal Function Panel

HMIS Ranking:
Health hazard 1
Flammability 0
Physical hazards 0

NFPA Rating:
Health hazard 1
Fire 0
Reactivity hazard 0

Potential Health Effects:
Inhalation May cause respiratory tract irritation
Skin May cause skin irritation
Eyes May cause eye irritation

III. Composition/Information on Ingredients
This product consists of reagent beads comprised of a mixture of low hazard lyophilized chemical beads enclosed in a plastic rotor. These beads are in concentrations not associated with human or environmental toxicity, which contain among the listed items, enzymes, preservatives and stabilizers in concentrations under 1%. Each rotor contains a cup of diluent containing less than 0.5 ml of water and preservatives in concentrations of less than 1%. Table 1 below lists the chemicals present in the panel in concentrations of greater than 1%:

<table>
<thead>
<tr>
<th>NAME OF SUBSTANCE</th>
<th>%</th>
<th>CAS#</th>
<th>EC#</th>
<th>HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>D- Mannitol</td>
<td>22.1</td>
<td>69-65-8</td>
<td>200-711-8</td>
<td>Skin Irrit. 2</td>
</tr>
<tr>
<td>Dextran, 70 USP</td>
<td>10.6</td>
<td>9004-54-0</td>
<td>232-677-5</td>
<td>Skin Irrit. 2</td>
</tr>
<tr>
<td>Tris(hydroxymethyl) amino methane</td>
<td>8.7</td>
<td>77-86-1</td>
<td>201-064-4</td>
<td>Skin Irrit. 2</td>
</tr>
<tr>
<td>Citric Acid trisodium</td>
<td>6.6</td>
<td>68-04-2</td>
<td>200-675-3</td>
<td>Skin Irrit. 2</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>4.5</td>
<td>7647-14-5</td>
<td>231-598-3</td>
<td>Skin Irrit. 2</td>
</tr>
<tr>
<td>Polyethylene glycol 2000</td>
<td>5.3</td>
<td>9004-74-4</td>
<td>215-801-2</td>
<td>Skin Irrit. 2</td>
</tr>
<tr>
<td>Polyethylene Glycol, 8000</td>
<td>3.7</td>
<td>25322-68-3</td>
<td>500-038-2</td>
<td>Skin Irrit. 2</td>
</tr>
<tr>
<td>Polyethylene Glycol, 3400</td>
<td>2.4</td>
<td>25322-68-3</td>
<td>500-038-2</td>
<td>Skin Irrit. 2</td>
</tr>
<tr>
<td>EDTA, Disodium Salt</td>
<td>2.2</td>
<td>6381-92-6</td>
<td>205-358-3</td>
<td>Skin Irrit. 2</td>
</tr>
<tr>
<td>EDTA, Tetrasodium Salt</td>
<td>1.0</td>
<td>194491-31-1</td>
<td>200-573-9</td>
<td>Skin Irrit. 2</td>
</tr>
</tbody>
</table>
IV. First Aid Measures

**In case of eye contact:** Flush eyes with copious amounts of water for a minimum of 15 minutes.

**In case of inhalation:** Allow the victim to rest in a well-ventilated area. Seek immediate medical attention.

**In case of skin contact:** Flush exposed skin with copious amounts of water for a minimum of 15 minutes.

**In case of ingestion:** Contact a physician in case of ingestion.

V. Fire-Fighting Measures

No flammable properties are associated with this product.

**Extinguishing media:** Use water spray, dry chemical or carbon dioxide.

**Hazardous combustion products:** May result in the formation of nitrogen and carbon oxides.

**Special protective equipment for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.

**Additional information:** Combustion of the plastic rotor containing this preparation may result in toxic particulates and gases.

VI. Accidental Release Measures

**Personal precautions:**

**Eye Protection** Wear safety goggles or a face shield when cleaning up spills.

**Skin Protection** Wear protective attire that prevents contamination of skin and personal clothing.

**Hand Protection** Wear nitrile or vinyl gloves that cover exposed skin.

**Other Protections** Avoid breathing mists, dusts, and aerosols.

**Environmental Controls:** Prevent spilled product from entering drains.

**Spill Clean-up Measures:** Contain the material to prevent it from becoming airborne. Place absorbent material on top of, and around the perimeter of the spill. Sweep up the spilled material and decontaminate the area with soap and water or an equivalent cleaner.

VII. Handling and Storage

This product is to be stored inside its packaging at 2-8°C in a cool, dry location. Wear gloves when handling the product and wash hands after removing gloves.
VIII. Exposure Controls/Personal Protection

None of the chemicals in this preparation are assigned occupational exposure limits. This product can be safely handled under normal conditions with no controls.

**Engineering Controls:** Provide ventilation in work areas where this product is handled

**Personal Protective Equipment:** Safety glasses and chemical-resistant gloves recommended

IX. Physical and Chemical Properties

**Physical state:** Solid. Spherical lyophilized beads are enclosed in a sealed plastic package

**Color:** Multi-colored beads

**Odor:** Odorless

**Odor threshold:** None established

**Chemical Properties:** None available for
- pH, Melting point
- Boiling point
- Flash point
- Lower Explosive Limit
- Upper Explosive Limit
- Vapor pressure
- Vapor density (air=1)
- Density (g/cm³)
- Water solubility (20°C in g/l)
- Auto ignition temperature

X. Stability and Reactivity

**Reactivity:** This preparation is not known to be reactive violently

**Chemical Stability:** This preparation is known to be chemically stable

**Thermal Decomposition:** Will decompose when burned

**Conditions to Avoid:** Sunlight, heat (temperatures above 32°C)

**Incompatible Materials:** No data available

**Hazardous Decomposition Products:** No harmful decomposition products known

**Storage Conditions:** Store in a cool (2-8°C), dry location
XI. Toxicological Information

No information found on Specific Symptoms. The toxicological properties of this preparation have not been fully investigated. Table 2 below lists the chemicals contained in the Panel and their toxicology information:

**TABLE 2**

<table>
<thead>
<tr>
<th>NAME OF SUBSTANCE</th>
<th>ACUTE TOXICITY</th>
<th>CHRONIC TOXICITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>D- Mannitol</td>
<td>13,500 mg/kg (Oral, Rat)</td>
<td>No data available</td>
</tr>
<tr>
<td>Dextran, 70 USP</td>
<td>10,700 mg/kg (scu, Rat)</td>
<td>Reproductive effects to women at high doses</td>
</tr>
<tr>
<td>Tris (hydroxymethyl)amino methane</td>
<td>5900 mg/kg (Oral, Rat)</td>
<td>No data available</td>
</tr>
<tr>
<td>Citric acid</td>
<td>5,400 mg/kg (Oral, Rat)</td>
<td>No data available</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>3000 mg/kg (Oral, Rat)</td>
<td>No data available</td>
</tr>
<tr>
<td>Polyethylene glycol, 2000</td>
<td>&gt; 50,000 mg/kg (Oral,Rat)</td>
<td>No data available</td>
</tr>
<tr>
<td>Polyethylene glycol 8000</td>
<td>&gt; 50,000 mg/kg (Oral,Rat)</td>
<td>No data available</td>
</tr>
<tr>
<td>Polyethylene glycol, 3400</td>
<td>&gt; 50,000 mg/kg (Oral,Rat)</td>
<td>No data available</td>
</tr>
<tr>
<td>EDTA, Disodium salt</td>
<td>&gt; 2,000 mg/kg (Oral, Rat)</td>
<td>No data available</td>
</tr>
<tr>
<td>EDTA, Tetrasodium salt</td>
<td>630 - 1,260 mg/kg (Oral – Rat)</td>
<td>No data available</td>
</tr>
</tbody>
</table>

(CMR)\(^1\) – Refers to carcinogenicity, mutagenicity, and reproductive hazards.

XII. Ecological Information

No information found. This preparation is very soluble in water, and is not anticipated to present adverse ecotoxicological effects.

XIII. Disposal Considerations

- **Waste Treatment Methods:** Check regional waste requirements
- **Waste Treatment Options:** Treatment options approved by local authorities
- **Sewage Disposal Options:** Check with local authorities before discharge to the sewer
- **Other Disposal Recommendations:** Dispose of according to local, state, and national regulatory requirements
U.S. Waste Classification: Non-RCRA Waste
California Waste Codes: H132

XIV. Transport Information

Follow federal and local regulations.

DOT and IATA Shipping Information:
Not regulated as a dangerous good

ADR Information:
Not Applicable

IMDG:
Not a dangerous good

XV. Regulatory Information

US OSHA: Not regulated as a hazardous material
US EPA: Hazards to the environment have not been thoroughly investigated

EU Regulations: This material safety data sheet conforms to Regulation (EC) No 1272/2008, 1907/ 2006, and other requirements established by the European Union

National Regulations: Germany: Water Hazard Class I

Chemical Safety Assessment: A Chemical Safety Assessment has not been completed for this product

XVI. Other Information

The above information is believed to be correct but does not purport to be inclusive and shall be used only as a guide. Abaxis shall not be held liable for any damage resulting from handling or from contact with the above product.