MATERIAL SAFETY DATA SHEET (MSDS)/SAFETY DATA SHEET (SDS)
Enzymatic Cleaner

I. Product and Company Identification

Product Name: Enzymatic cleaner
Part Numbers: 770-8011

Company Information:
- Abaxis, Inc.
  3240 Whipple Road
  Union City, CA 94587
  Tel: +1-510-675-6500
  Fax: +1-510-441-6150
- Abaxis Europe GmbH
  Otto-Hesse-Strasse 19
  64293 Darmstadt
  Tel: +49 6151 35079-0
  Fax: 06151-35079-11

Manufactured by:
Clinical Diagnostic Solutions, Inc.
1800 Northwest 65th Avenue
Plantation, FL 33313 USA

Customer Support:
- +1-800-822-2947 (US)
- abaxis@abaxis.com
- Tel: +49 6151 35079-0 (EU)
- abaxis@abaxis.de

Emergency Number:
- +1-800-453-3328 or +1-954-791-1773 (US)
- This number is available only during business hours

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

P305 If in eyes: Flush with water for at least 15 minutes
P351 Rinse continuously with water for several minutes
P338 Remove contact lenses if present and continue rinsing
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

**TABLE 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>Buffer (proprietary)</td>
<td>2</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Skin Irritant 2</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>&lt; 2.5</td>
<td>57-55-6</td>
<td>200-338-0</td>
<td>Skin Irritant 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 4° to 35° C (40° to 95° F) in a cool, dry location. Wear gloves when handling the product and wash hands after removing gloves.

Avoid freezing

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
**MATERIAL SAFETY DATA SHEET (MSDS)/SAFETY DATA SHEET (SDS)**

**Enzymatic Cleaner**

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

**IX. Physical and Chemical Properties**

**Physical state:** Liquid

**Color:** Clear, amber liquid

**Odor:** Odorless

**Odor threshold:** None established

**Chemical Properties:**
- Specific gravity (Water =1): 1.03
- Water solubility (20°C in g/l): Miscible
- pH: 7.6
  - None available for
  - Melting point
  - Boiling point
  - Flash point
  - Lower Explosive Limit
  - Upper Explosive Limit
  - Vapor pressure
  - Vapor density (air=1)
  - Density (g/cm3)
  - Auto ignition temperature

**X. Stability and Reactivity**

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

**Chemical Stability:** This preparation is known to be chemically stable at normal temperature and pressures

**Thermal Decomposition:** Will decompose when burned

**Conditions to Avoid:** Prevent aerosol formation. Avoid freezing

**Incompatible Materials:** No data available

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

**Storage Conditions:** Store at 4-35°C

**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></td>
<td>LD50/ LC50</td>
<td>(CMR)1</td>
</tr>
<tr>
<td>Buffer (proprietary)</td>
<td>None Available</td>
<td>No data available</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>20,000 mg/kg (Oral – Rat)</td>
<td>No data available</td>
</tr>
<tr>
<td>Subtilisin</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

1CMR – Refers to carcinogenicity, mutagenicity, and reproductive hazards.

XII. Ecological Information

Potentially toxic to fish and other marine organisms

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:

UN# Not applicable
Proper shipping name Not applicable.
Class(es) Not applicable
Classification code Not applicable
Packing group III
Special provision(s) Schedule B Classification 3822.00.0002
Shipping labels No special labeling
Shipping description Non-hazardous liquid n.o.s.
ADR Information:
Not Applicable

IMDG:
Not a dangerous good

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

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.

Precautionary Statements:

R36 Irritating to eyes
R38 Irritating to skin