

# MATERIAL SAFETY DATA SHEET

## METRIZYME

### Dual Enzymatic Detergent

#### 1 - IDENTIFICATION

**Manufacturer:** Metrex Research Corporation  
**Address:** 10270 S. Dransfeldt Road  
**City, State, Zip:** Parker, CO 80134  
**Telephone:** 1-800-841-1428  
**24-Hour Emergency:** Chemtrec 1-800-424-9300  
**Date Prepared:** August 31, 1999

#### 2 - COMPOSITION INFORMATION

##### Hazardous Ingredients

This product contains no hazardous components as defined in the OSHA Hazard Communication Standard (29 CFR 1910.1200).

##### Other Ingredients

	<u>CAS #</u>	<u>PEL</u>	<u>TLV</u>	<u>%</u>
Proteinase Alkaline				
Bacillus	9073-77-2	N/A	N/A	
Proteinase Subtilisin	9014-01-1	N/A	N/A	
Propylene Glycol	57-55-6	N/A	N/A	
Water	7732-18-5	N/A	N/A	

#### 3 - PHYSICAL AND CHEMICAL PROPERTIES

**Boiling Point:** 100°C to 105°C

**Specific Gravity (H<sub>2</sub>O = 1):** >1.018

**Vapor Pressure (mm Hg):** Not determined.

**Vapor Density (AIR = 1):** > 1.015 g/ml

**Solubility in Water:** 100%

**Appearance and Odor:** Solution is bluish-green with a mint odor.

**pH:** 6.50 - 8.00

#### 4 - FIRE AND EXPLOSION HAZARD DATA

**Flash Point (Method Used):** Nonflammable.

**Flammable Limits:** LEL: N/A UEL: N/A

**Extinguishing Media:** N/A

**Special Fire Fighting Procedures:** N/A

**Unusual Fire and Explosion Hazards:** N/A

#### 5 - REACTIVITY DATA

**Stability:** Stable solution.

**Conditions to Avoid:** Avoid evaporation.

**Incompatibility (Material to Avoid):** Avoid bleach and strong acids.

**Hazardous Decomposition Byproducts:** N/A

**Hazardous Polymerization:** Will not occur.

#### 6 - HEALTH HAZARD DATA

##### Routes of Entry:

**Skin:** Moderate irritation.

**Eyes:** Contact with eyes causes damage.

**Inhalation:** Low or mild irritation.

**Ingestion:** Toxic **Carcinogenicity:** NTP: No

**IARC Monographs:** No **OSHA Regulated Carcinogen:** No

#### 7 - EMERGENCY FIRST AID PROCEDURES

**Skin:** Wash skin with soap and water.

**Eyes:** Flush with water for 15 minutes. If irritation persists, seek medical attention.

**Inhalation:** Remove to fresh air. If irritation persists, seek medical attention.

**Ingestion:** Do not induce vomiting. Give large amounts of water. Seek medical attention.

#### 8 - PRECAUTIONS FOR SAFE HANDLING & USE

**Steps to be taken in case material is released or spilled:** Ventilate area; wear protective gloves and eye gear. Wipe or absorb with sponge, mop, towel or inert material (kitty litter) and transfer to a suitable container for disposal.

**Waste Disposal Method:** Flush thoroughly with water into sewage disposal system in accordance with federal, state, and local regulations. Do not reuse empty container. Wrap container and put in trash.

##### Precautions to be taken in Handling and Storing:

Keep in cool place. Use in well-ventilated area.

**Other Precautions:** Keep out of reach of children. Do not ingest. Avoid skin and eye contact. Avoid contamination of food.

#### 9 - CONTROL MEASURES

**Respiratory Protection:** Use in a well-ventilated area.

##### VENTILATION:

**Local Exhaust:** Adequate ventilation required to maintain recommended exposure limit.

**Mechanical (General):** Should be sufficient.

**Protective Gloves:** Latex rubber, butyl rubber, nitrile rubber and polyethylene.

**Eye Protection:** Safety glasses.

**Work/Hygiene Practices:** Handle in accordance with good personal hygiene and safety practices. These practices include avoiding unnecessary exposure.

#### 10 - TRANSPORTATION INFORMATION

Not DOT Regulated.

#### 11 - SPECIAL INFORMATION

**HMIS (Hazardous Material Identification System) Rating:**

H1, F0, R0

[HMIS Hazard Index: 4 - Severe Hazard; 3 - Serious Hazard; 2 - Moderate Hazard; 1 - Slight Hazard; 0 - Minimum Hazard]

**Note:** This MSDS was prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and is to be used only for this product. The information contained in this MSDS is, to the best of our knowledge, believed to be accurate.