



Enzyme Action

Laundry Detergent

DESCRIPTION

Enzyme Action is an enzyme fortified laundry detergent that excels in specialized situations where food soil, protein and organic oils are present. **Enzyme Action** is safe for all washable fabrics.

Features:

- Powder form
- Contains Protease enzymes
- Low sudsing

Benefits:

- Economical
- Digests protein-based stains effectively
- Rinses freely from garments

DIRECTIONS

Use 10 oz (280 g) in a 50 lb (22.7 kg) commercial washer. Water temperature for whites should be around 140°F (60°C). A temperature of 150°F (65°C) or higher is not recommended.

Rinse 3 times for 2 minutes, gradually reducing the temperature to 80°F (27°C). Dark colored garments should be washed at 80°F (27°C) during the entire process.

PRESOAKING

Use 8 – 12 oz (225 g -335 g) per load, depending on level of soiling. Dissolve in slightly warm water (80°F / 27°C) and let soak overnight before adding to regular washing cycle.

For further information, please contact your M-chem Representative.

PHYSICAL DATA

Appearance	Powder
Color	White
Foam	Low
Odor	Pleasant
pH (3.1%)	Slightly alkaline

MATERIAL SAFETY DATA SHEET

SECTION 1 – PRODUCT/MANUFACTURER'S IDENTITY

Product Name: **ENZYME ACTION**

Product Use: *Enzyme laundry detergent*

WHMIS CODE: E
Proper Shipping Name: N/A
Hazard Class: N/A
UN Number: N/A

HMIS	
3	Health
0	Flammability
0	Reactivity
B	Personal

M-chem Technologies Inc.
1607 Derwent Way
Delta, BC V3M 6K8, Canada
Phone: (604) 526-5655

EMERGENCY PHONE
Canada: Canutec 613-996-6666
U.S.A.: Chemtec 800-424-9300

A=Goggles, B=Goggles & Gloves
C=Goggles, Gloves and Apron

ABBREVIATION KEY: N/A=Not Applicable, N/E=Not Established, N/D=Not Determined, > =Greater Than

SECTION 2 – HAZARDOUS INGREDIENTS INFORMATION

INGREDIENT	CAS NO.	RANGE %	PEL	TLV
SODIUM METASILICATE	6834-92-0	1.0 – 5.0	N/D	N/D
LD50 (oral rat) 1153 mg/kg				
LD50 (dermal) N/A				
LC50 N/A				
ALCOHOL ETHOXYLATE	68439-46-3	1.0-5.0	N/A	N/A
LD50 (oral rat) 1376 mg/kg				
LD50 (dermal rabbit) >2 g/kg				
SODIUM CARBONATE	497-19-8	30.0 – 60.0	15 mg/m3	10 mg/m3
LD50 (oral rat) 2800 mg/kg				
LD50 (dermal) N/D				
LC50 N/D				

SECTION 3 – PHYSICAL DATA

Color and Odor: White with a pleasant scent. **Boiling Point:** N/D **Vapor Pressure (mm HG):** N/D **pH:** 11.0-11.5 @ 3.1% solution.
Physical State: Powder. **Melting Point:** N/A **Vapor Density:** N/D **Specific Gravity:** N/A
Coef. Water/Oil Dist: Greater than 1.0 **Evaporation Rate:** N/D **Solubility in Water:** Soluble **Odor Threshold:** No Data

SECTION 4 – FIRE AND EXPLOSION HAZARD DATA

Flash Point and Method: Non-flammable. **Sensitivity to Mechanical Impact:** None. **Conditions of Flammability:** None.
Flammable Limits: None known. **Sensitivity to Static Discharge:** None. **Auto ignition Temperature:** None known.
Extinguishing Media: Water, dry chemical, foam or carbon dioxide.
Unusual Fire and Explosion Hazards: None known.
Hazardous Combustion Products: Oxides of carbon, sodium and sulfur, and other unidentifiable organic compounds upon thermal decomposition.
Special Fire Fighting: Wear full protective equipment, including a NIOSH/MSHA approved, self-contained breathing apparatus for fire fighting situations. Use water spray to cool all nearby fire exposed surfaces.

SECTION 5 – REACTIVITY DATA

Chemical Stability: Stable under normal storage conditions. **Hazardous Polymerization:** Will not Occur.
Incompatibility (material to avoid): Strong oxidizing and acids.
Hazardous Decomposition Products: Oxides of carbon, sodium and sulfur, and other unidentifiable organic compounds.

SECTION 6 – TOXICOLOGICAL DATA

Exposure Limits: See Section 2 under Hazardous Ingredient. **Routes of Entry:** Skin, eyes, inhalation.
Irritancy of Product: Corrosive to skin, eyes and respiratory system. **Carcinogenicity:** None known.
Sensitization: None known. **Mutagenicity:** None known.
Name of Toxicological Synergistic Product: None known. **Reproductive Toxicity:** None known.
Teratogenicity: None known.
Effects of Chronic Exposure: Prolonged or repeated exposure may cause skin damage or dermatitis, respiratory disorder or lung damage.
Effects of Acute Exposure to Product: Product exposure may burn eyes and irritate or burn skin. Inhaling vapors or mists may cause respiratory discomfort such as breathing problems, burning, coughing, etc. Ingestion may cause gastrointestinal and abdominal discomfort.

SECTION 7 – PREVENTATIVE AND CONTROL MEASURES

Respiratory Protection: Normally not required. However, use a NIOSH/MSHA approved dust respirator if product dust is generated.
Ventilation: Good general ventilation or local exhaust ventilation for spraying and misting in confined areas.
Protective Gloves: Normally not required. Use natural or synthetic rubber gloves for handling.
Eye Protection: Safety goggles or glasses.
Protective Clothing and Equipment: Long sleeve coveralls. Eye wash recommended in the immediate work area.
Storage and Handling Procedures: Store in a cool, dry place away from incompatible materials. Keep container closed when not in use. Do not mix with any other chemicals. Avoid contact with skin, eyes and clothing. Use good industrial hygiene. Store at temperatures below 30°C (86°F) and do not freeze.
Disposal Procedures for Spills or Leaks: Wear protective equipment. Sweep up material and dispose of into a sealed, clean dry waste container. Keep material away from sewers.
Waste Disposal Method: Reuse if possible, or otherwise dispose recovered material in accordance with all local, Provincial or Federal Regulations.
Special Shipping Information: Store at temperatures below 30°C (86°F). Do not freeze.

SECTION 8 – EMERGENCY FIRST AID PROCEDURES

First Aid:
If swallowed, give plenty of clean water to drink to dilute product. Do not induce vomiting. Call a Physician. In case of contact with eyes, flush with clean water for 15 minutes. Get medical attention. For contact with skin, wash with clean water and rinse well. If irritation occurs or persists, get medical attention.

PREPARATION DATA

PREPARED BY: Technical Service / Regulatory Division PHONE: 604-526-5655 LAST UPDATE: 07/04/11
THE INFORMATION PROVIDED IN THIS MATERIAL SAFETY DATA SHEET HAS BEEN OBTAINED FROM CURRENT SOURCES AND IS BELIEVED TO BE RELIABLE