

Metrex Research Corporation
MATERIAL SAFETY DATA SHEET

Effective Date: October 2005

PRODUCT INFORMATION

TRADE NAME:

EmPower

PRODUCT USE:

Detergent

MANUFACTURER: Metrex Research Corporation

Metrex Research Corporation
1717 West Collins Avenue
Orange, CA 92867
USA

Tel: (714) 516-7400

Fax: (714) 516-7904

SUPPLIER: Metrex Research
a Division of Sybron Canada Limited
Oakville, Ontario L6M 2W2
Canada

Tel: (905) 825-2511

Fax: (905) 825-9292

EMERGENCY PHONE:

(USA) – Chemtrec: 1 (800) 424-9300 (24 hours)
(Canada) – Canutec: 1 (613) 996-6666 (24 hours)

SYNONYMS: MC-4000

MOLECULAR WEIGHT: Not applicable, mixture

CHEMICAL NAME: Mixture

CHEMICAL FAMILY: Not applicable, mixture

WHMIS CLASS: D2B

CHEMICAL FORMULA: Not applicable, mixture

HAZARDOUS INGREDIENTS

	% BY WT.	CAS NO.	ACUTE LETHALITY
Propylene Glycol	15.0 to 40.0	57-55-6	LD ₅₀ (oral, rat) = 20 g/kg
Proteinase Subtilisin	3.0 to 7.0	9014-01-1	LD ₅₀ (oral, rat) = 3700 mg/kg
Alkylphenoxypoly-oxyethylene ethanol	5.0 to 10.0	101962-77-0	not available
Polyalkoxylated aliphatic compounds	5.0 to 10.0	not available	not available

PHYSICAL DATA

PHYSICAL STATE: Liquid

BOILING POINT: 100 to 105 °C

MELTING POINT: not applicable

VAPOUR DENSITY(air = 1): >1.015 g/ml

SPECIFIC GRAVITY: >1.018

% VOLATILE BY VOLUME: not available

pH: 6.5 – 8.6

ODOUR THRESHOLD: not available

VAPOUR PRESSURE (mm Hg @ 20 °C): not determined

EVAPORATION RATE: (n-Butyl acetate = 1): less than 1

COEFFICIENT OF WATER/OIL DISTRIBUTION: not available

APPEARANCE AND ODOUR: Bluish green viscous solution with a coastal breeze odour

FIRE OR EXPLOSION HAZARD

FLASH POINT: non-flammable

LOWER EXPLOSIVE LIMIT: not applicable

UPPER EXPLOSIVE LIMIT: not applicable

METHOD: not applicable

AUTO-IGNITION TEMPERATURE: not applicable

MEANS OF EXTINCTION: not applicable

SPECIAL FIRE FIGHTING PROCEDURES: not applicable

HAZARDOUS COMBUSTION PRODUCTS: Oxides of nitrogen and carbon, ammonia, low molecular weight volatile organic compounds.

EXPLOSION DATA: not applicable

SENSITIVITY to MECHANICAL IMPACT: none known

SENSITIVITY to STATIC DISCHARGE: none known

REACTIVITY DATA

STABILITY AT ROOM TEMPERATURE: This product is a stable solution within a closed container under normal conditions of storage and use.

INCOMPATIBLE MATERIALS: Oxidizing materials. Avoid contact with acids and alkalines.

CONDITIONS of REACTIVITY: Avoid temperatures above 100 °C. Do not allow significant evaporation.

HAZARDOUS DECOMPOSITION PRODUCTS: not applicable

TOXICOLOGICAL PROPERTIES

OCCUPATIONAL EXPOSURE LIMITS:

	ACGIH TLV-TWA*	TWAEV**
Proteinase Subtilisin	0.00006 mg/m ³ (as 100% pure protease)	not established

NOTE:

- * Threshold Limit Value of American Conference of Governmental Industrial Hygienists is concentration that can not be exceeded during an eight-hour exposure.
- ** Time-weighted average exposure value limits as published in Ont. Reg. 833/90 (as amended by Ont. Reg. 513/92) REGULATION RESPECTING CONTROL OF EXPOSURE TO BIOLOGICAL OR CHEMICAL AGENTS.

EFFECTS OF ACUTE EXPOSURE TO PRODUCT (Routes of entry):

INHALATION: Low to mild irritant. May cause an allergic type response in susceptible individuals.

EYE CONTACT: Vapours are irritating to the eyes and may cause eye damage on contact.

SKIN CONTACT/ABSORPTION: Mild irritant. Skin absorption is not suspected.

INGESTION: Ingestion may cause irritation to the throat, mouth and gastrointestinal tract.

EFFECTS OF CHRONIC EXPOSURE TO PRODUCT: Repeated skin contact may cause dermatitis, skin sensitization and allergic reaction in hypersensitive individuals.

SENSITIZATION TO PRODUCT: Possible skin and respiratory sensitization.

CARCINOGENICITY: TERATOGENICITY: REPRODUCTIVE TOXICITY: No reported evidence of carcinogenicity or reproductive effects.

PREVENTIVE MEASURES

HANDLING PROCEDURES and EQUIPMENT: Avoid personal contact. Prevent skin and eye contact. Do not breathe fumes, vapours or spray mist released from this product. Do not use this product at elevated temperatures. Washing facilities should be readily available when using this product. Wash thoroughly after handling and before eating, drinking or smoking. Food should not be used in area where this product is stored or handled.

PERSONAL PROTECTIVE EQUIPMENT

EYES: Wear safety glasses or chemical safety goggles.

SKIN: Wear impervious material gloves, such as butyl rubber or neoprene.

RESPIRATORY: Depending on the airborne concentration, a NIOSH/MSHA approved respirator may be worn for concentrations up to 10 times the TLV.

ENGINEERING CONTROLS: General mechanical and local exhaust ventilation to maintain airborne concentrations below occupational exposure limits. If ventilation is insufficient, wear suitable respiratory protection.

STORAGE REQUIREMENTS: Keep containers tightly closed. Store in a cool, dry well ventilated area, away from acids, alkalines and oxidizers. Do not store with incompatible materials. Protect containers from damage.

SPILL or LEAK PROCEDURE: Stop discharge and contain spill. Keep others at a safe distance. Avoid all personal contact. Wear protective equipment listed above. Recover and reuse spilled material. Absorb remaining product with an inert absorbent. Dumping into sewer, onto the ground, or into any body of water may be prohibited by local sewer use by-laws. Wash residue from spill with water and flush to a sewer serviced by a wastewater treatment facility. Ventilate area to dispel residual vapour.

WASTE DISPOSAL: Wastes must be disposed of according to local, provincial or federal regulations.

FIRST AID

EYE: Immediately flush eyes with running water for a minimum of 15 minutes while forcing eyelids open during flush. Take care not to rinse contaminated water into the non-affected eye. Always seek medical attention for accidents involving the eyes.

SKIN: Wash affected areas with soap and running water for a minimum of 15 minutes while removing clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.

INHALATION: Take proper precautions to ensure your own safety before attempting to rescue. Remove source of contamination or move victim to fresh air. Give artificial respiration if not breathing, and get immediate medical attention.

INGESTION: Do not induce vomiting or give anything by mouth to an unconscious or convulsing person. If conscious, give 2 or 3 glasses of water. Aspiration of liquid into lungs during ingestion or vomiting may cause severe pulmonary injury or death. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs. Immediately contact local Poison Control Centre to obtain medical attention.

PREPARATION INFORMATION

PREPARED BY: SYBRON DENTAL SPECIALTIES, INC. (714) 516-7400

NOTICE: This information is furnished for Metrex Research Corporation at no charge, independent of any sale of the product, and subject to the user's investigation and verification. While this data is believed to be correct, Metrex Research Corporation makes no warranties, guarantees, or representations of any kind with respect to the product or to this information, either expressed or implied, and whether arising by law or otherwise, including but not limited to any implied warranty of merchantability or fitness for any particular purpose. Metrex Research Corporation shall in no event be liable for any personal injury, property or other damages of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly or indirectly resulting from the publication, use of, or reliance upon this information.