



MATERIAL SAFETY DATA SHEET

KEM CANADA MFG.
 4 BLAIR DRIVE
 BRAMPTON, ONTARIO
 L6T 2H5
 TEL# (905) 456-9444

EMERGENCY # CANUTEC (613) 996-6666
"USE IN CASE OF CHEMICAL EMERGENCY ONLY"

W.H.M.I.S. CLASSIFICATION: D2B

MATERIAL REFERENCE NO: 132100

SECTION I - MATERIAL IDENTIFICATION AND USE

MATERIAL NAME/I.D.: FREE FLOW	
CHEMICAL NAME: ENZYMES	CHEMICAL FAMILY: BACTERIAL CULTURE
CHEMICAL FORMULA: MIXTURE	MOLECULAR WEIGHT: MIXTURE
SYNONYMS: NONE	
MATERIAL USE: ORGANIC WASTE DIGESTER	

SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS INGREDIENTS	APPROX. CONCENT.	TLV PPM	C.A.S. NUMBERS	LD 50 ORAL, RAT
ALCOHOL ETHOXYLATE	1.0-5.0	NOT AVAILABLE	68131-39-5	2000 MG/KG
VIABLE BACTERIA CULTURES	1.0-5.0	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE

SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: LIQUID		
ODOUR AND APPEARANCE: WHITE TURBID LIQUID, PERFUMED ODOUR.		
ODOUR THRESHOLD (PPM)	SPECIFIC GRAVITY	VAPOUR PRESSURE (MM)
NOT AVAILABLE	1.001	NOT AVAILABLE
VAPOUR DENSITY (AIR=1)	EVAPORATION RATE	SOLUBILITY IN WATER
EQUIVALENT TO WATER	EQUIVALENT TO WATER	(20ø C) EMULSIFIABLE
BOILING POINT (C)	FREEZING POINT (C)	% VOLATILE (BY WEIGHT)
~100	0 (EST.)	96
pH CONCENTRATED	DENSITY (G/ML)	COEF.OF WATER/OIL DISTR
6.0-8.0	NOT APPLICABLE	NOT AVAILABLE



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SECTION IV - FIRE AND EXPLOSION HAZARD OF MATERIAL

FLAMMABILITY: NON-FLAMMABLE IF YES, UNDER WHICH CONDITIONS:		
MEANS OF EXTINCTION: WATER FOG, FOAM, DRY CHEMICAL, CARBON DIOXIDE		
SPECIAL PROCEDURES: WEAR FULL PROTECTIVE EQUIPMENT INCLUDING SELF- CONTAINED BREATHING APPARATUS.		
FLASH POINT (C) AND METHOD: NONE (TCC)		
HAZARDOUS COMBUSTION PRODUCTS: CARBON DIOXIDE, CARBON MONOXIDE, IRRITATING FUMES, UNIDENTIFIED ORGANICS.		
UPPER EXPLOSION LIMIT NOT AVAILABLE	LOWER EXPLOSION LIMIT NOT AVAILABLE	AUTOIGNITION TEMP(C) NOT AVAILABLE
EXPLOSION DATA SENSITIVITY TO CHEMICAL IMPACT NOT APPLICABLE	RATE OF BURNING NOT APPLICABLE	EXPLOSIVE POWER NOT APPLICABLE
SENSITIVITY TO STATIC DISCHARGE: NOT AVAILABLE		

SECTION V - REACTIVITY DATA

CHEMICAL STABILITY: STABLE IF NO, UNDER WHICH CONDITIONS:		
INCOMPATIBILITY TO OTHER SUBSTANCES: YES IF SO, WHICH ONES: STRONG ACIDS AND STRONG ALKALIS, STRONG OXIDIZING AGENTS.		
REACTIVITY AND UNDER WHAT CONDITIONS: STRONG ACIDS AND STRONG ALKALI CAN INACTIVATE BIOLOGICAL CULTURES. HAZARDOUS POLYMERIZATION WILL NOT OCCUR.		
HAZARDOUS DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION WILL EMIT OXIDES OF CARBON, IRRITATING FUMES, UNIDENTIFIED ORGANICS.		

SECTION VI - HEALTH HAZARD DATA

ROUTE OF ENTRY:		
SKIN CONTACT: YES INHALATION: NO	SKIN ABSORPTION: YES INGESTION: YES	EYE CONTACT: YES



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EFFECTS OF ACUTE EXPOSURE TO MATERIAL:
EYES-MAY CAUSE IRRITATION. CAN CAUSE INFECTION WHEN IN CONTACT WITH OPEN WOUNDS.
SKIN-CONTACT MAY CAUSE SLIGHT REDNESS ON HANDS AND FOREARMS IF INDIVIDUAL HAS A HISTORY OF DERMAL ALLERGIC REACTION.
SKIN ABSORPTION-SYSTEMIC TOXIC CONCENTRATIONS WILL PROBABLY NOT BE ABSORBED THROUGH THE SKIN.
INGESTION-SWALLOWING OF LARGE AMOUNTS MAY CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, DIARRHEA.

EFFECTS OF CHRONIC EXPOSURE TO MATERIAL:
SKIN-REPEATED OR PROLONGED CONTACT CAN CAUSE DERMATITIS AND SKIN SENSITIZATION.

LD 50 OF MATL. NOT AVAILABLE	LC 50 OF MATL. NOT AVAILABLE	EXPOSURE LIMIT(S) NONE KNOWN	IRRITANCY OF MATL MILD
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SENSITIZATION OF MATERIAL CRONIC EXPOSURE CAN SENSITIZE SKIN	SYNERGISTIC MATERIALS NOT AVAILABLE
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CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY
NONE KNOWN

SECTION VII - PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

GLOVES: IMPERMEABLE RECOMMENDED
RESPIRATORY: NOT NORMALLY REQUIRED. APPROVED VAPOUR CANISTER IF SYMPTOMS OCCUR.
EYE: SAFETY GOGGLES RECOMMENDED
FOOTWEAR: NO SPECIAL REQUIREMENTS
CLOTHING: NO SPECIAL REQUIREMENTS
OTHER: EYE WASH AND SAFETY SHOWER
ENGINEERING CONTROLS (EG VENTILATION, ENCLOSED PROCESS): PROVIDE LOCAL OR MECHANICAL VENTILATION IN CONFINED OR POORLY VENTILATED AREAS.

LEAK AND SPILL PROCEDURE: PROVIDE ADEQUATE VENTILATION. CONTAIN SPILL. IF POSSIBLE, FLUSH TO WASTE TREATMENT SEWER OR TRANSFER TO SUITABLE CONTAINER FOR REUSE OR DISPOSAL. ABSORB REMAINING MATERIAL ONTO ABSORBENT AND SCOOP INTO DISPOSAL CONTAINER. FLUSH RESIDUAL WITH VOLUMES OF WATER.

WASTE DISPOSAL: DISPOSE IN ACCORDANCE WITH FEDERAL, PROVINCIAL AND LOCAL REGULATIONS.



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SECTION VIII - FIRST AID MEASURES

PROCEDURES:
EYES-FLUSH WITH WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. HAVE EYES EXAMINED AND TREATED BY A PHYSICIAN.
SKIN-REMOVE CONTAMINATED CLOTHING AND WASH AFFECTED AREA THOROUGHLY WITH SOAP AND WATER. GET MEDICAL ATTENTION IF SYMPTOMS OCCUR. WASH CLOTHING BEFORE REUSE.
INGESTION-DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON. GET MEDICAL ATTENTION.

SOURCES USED: RAW MATERIAL SUPPLIER'S MATERIAL SAFETY DATA SHEETS.

ADDITIONAL INFORMATION: NONE

SECTION IX - TDG SHIPPING INFORMATION

SHIPPING NAME	CLASS	UN NO.	PACKING GROUP
NOT REGULATED			

HANDLING PROCEDURES AND EQUIPMENT: AVOID CONTACT WITH EYES AND SKIN. AVOID CONTACT WITH OPEN WOUNDS. WASH THOROUGHLY AFTER HANDLING.

STORAGE REQUIREMENTS: AVOID PROLONGED EXPOSURE TO TEMPERATURES ABOVE 45(C). KEEP FROM FREEZING.

SPECIAL SHIPPING INFORMATION: KEEP FROM FREEZING

SECTION X - HMIS HAZARD RATING INFORMATION

FLAMMABILITY	REACTIVITY	HEALTH
0	0	1

SECTION XI - PREPARATION DATE OF MSDS

PREPARED BY: TECHNICAL DEPARTMENT TELEPHONE # (905) 456-9444
REVISED: JANUARY 10, 2009 REPLACES: JANUARY 18/2006

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