



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: NOT CONTROLLED

MATERIAL REFERENCE NO: 729000

SECTION I - MATERIAL IDENTIFICATION AND USE

| MATERIAL NAME/I.D.: KEMTREET 290 |

| CHEMICAL NAME: PROPYLENE GLYCOL | CHEMICAL FAMILY: GLYCOLS |

| MATERIAL USE: ANTIFREEZE |

SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS INGREDIENTS	APPROX. % CONCENT.	TLV PPM	C.A.S. NUMBERS	LD 50 (ORAL, RAT)
PROPYLENE GLYCOL	99.0-100.0	NO DATA	57-55-6	20000 MG/KG

SECTION III - PHYSICAL DATA FOR MATERIAL

| PHYSICAL STATE: LIQUID |

| ODOUR AND APPEARANCE: CLEAR, COLOURLESS LIQUID: NO ODOUR. |

| ODOUR THRESHOLD (PPM) | SPECIFIC GRAVITY | VAPOUR PRESSURE (MMHG)
| NOT ESTABLISHED | 1.03-1.04 | 0.08 @ 20°C |

| VAPOUR DENSITY (AIR=1) | EVAPORATION RATE | SOLUBILITY IN WATER
| 2.62 | 0.01 | (20 °C) COMPLETE |

| BOILING POINT (C) | FREEZING POINT (C) | % VOLATILE (BY WEIGHT)
| ~188 | -59 | NOT AVAILABLE |

| pH (10% SOLUTION) | DENSITY (G/ML) | COEF. OF WATER/OIL DISTR
| NOT AVAILABLE | 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, ALCOHOL FOAM, DRY CHEMICAL, CO2	
SPECIAL PROCEDURES: WEAR FULL PROTECTIVE EQUIPMENT INCLUDING SELF-	
CONTAINED BREATHING APPARATUS.	
FLASH POINT (C) AND METHOD: 103 (PENSKY-MARTENS CLOSED CUP)	
HAZARDOUS COMBUSTION PRODUCTS: CARBON DIOXIDE, CARBON MONOXIDE,	
MAY ALSO YIELD ALDEHYDES, LACTIC, PYRUVIC OR ACETIC ACID.	
UPPER EXPLOSION LIMIT LOWER EXPLOSION LIMIT AUTOIGNITION TEMP(C)	
NOT AVAILABLE NOT AVAILABLE NOT AVAILABLE	
EXPLOSION DATA SENSITIVITY RATE OF BURNING EXPLOSIVE POWER	
TO CHEMICAL IMPACT	
NOT AVAILABLE NOT AVAILABLE NOT AVAILABLE	
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 OXIDIZING AGENTS.	
REACTIVITY AND UNDER WHAT CONDITIONS: NO DATA AVAILABLE.	
HAZARDOUS POLYMERIZATION WILL NOT OCCUR.	
HAZARDOUS DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION CAN YIELD	
CARBON DIOXIDE, CARBON MONOXIDE. MAY ALSO YIELD ALDEHYDES, LACTIC,	
PYRUVIC OR ACETIC ACID.	

SECTION VI - HEALTH HAZARD DATA

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



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|EFFECTS OF ACUTE EXPOSURE TO MATERIAL:

|EYES-CONTACT MAY CAUSE SLIGHT TRANSITORY IRRITATION.

|SKIN-CONTACT MAY CAUSE MINOR IRRITATION.

|INGESTION-SINGLE DOSE ORAL TOXICITY IS LOW. NO ADVERSE HEALTH
|EFFECTS EXPECTED.

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|EFFECTS OF CHRONIC EXPOSURE TO MATERIAL:

|SKIN-PROLONGED OR REPEATED EXPOSURES MAY CAUSE FLAKING AND SOFTENING
|OF SKIN.

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|LD 50 OF MATL. |LC 50 OF MATL. |EXPOSURE LIMIT(S) |IRRITANCY OF MATL
| NOT AVAILABLE | NOT AVAILABLE | NOT AVAILABLE | LOW

|SENSITIZATION OF MATERIAL | SYNERGISTIC MATERIALS

| NOT AVAILABLE | NOT AVAILABLE

|CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY
|NONE KNOWN.

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SECTION VII - PREVENTIVE MEASURES

|PERSONAL PROTECTIVE EQUIPMENT:

| GLOVES: IMPERVIOUS

|RESPIRATORY: NIOSH APPROVED RESPIRATOR IF OCCUPATIONAL EXPOSURE
| LIMTS ARE EXCEEDED.

| EYE: SAFETY GLASSES

| FOOTWEAR: NO SPECIAL REQUIREMENTS

| CLOTHING: NO SPECIAL REQUIREMENTS

| OTHER: EYE WASH AND SAFETY SHOWER

|ENGINEERING CONTROLS (EG VENTILATION, ENCLOSED PROCESS): LOCAL OR
| GENERAL EXHAUST TO MAINTAIN TLV WITHIN ACCEPTABLE
| LIMTS.

|LEAK AND SPILL PROCEDURE: CONTAIN SPILL. PREVENT ENTRY INTO SEWERS

|AND STREAMS. TRANSFER TO SUITABLE CONTAINER FOR RECLAIM OR DISPOSAL.

|ABSORB REMAINING MATERIAL ONTO ABSORBENT AND SCOOP INTO CONTAINER

|FOR DISPOSAL.

|WASTE DISPOSAL:

|DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, PROVINCIAL AND FEDERAL
|REGULATIONS.

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SECTION VIII - FIRST AID MEASURES

| PROCEDURES:

| EYES-FLUSH THOROUGHLY WITH LARGE AMOUNTS OF WATER. IF IRRITATION
| PERSISTS SEEK MEDICAL ATTENTION.
| INHALATION-REMOVE TO FRESH AIR. IF SYMPTOMS OCCUR, GET MEDICAL
| ATTENTION.
| SKIN-WASH THOROUGHLY WITH SOAP AND WATER FOR AT LEAST 15 MINUTES. IF
| IRRITATION PERSISTS SEEK MEDICAL ATTENTION. LAUNDER CONTAMINATED
| CLOTHING BEFORE REUSE.
| INGESTION-LOW IN TOXICITY. GIVE SEVERAL GLASSES OF WATER TO DILUTE.
| IF LARGE AMOUNTS ARE SWALLOWED, GET MEDICAL ADVICE. NEVER GIVE
| ANYTHING BY MOUTH IF VICTIM IS UNCONSCIOUS OR CONVULSING.
|

| 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, SKIN AND
| CLOTHING. WASH THOROUGHLY AFTER HANDLING.

| STORAGE REQUIREMENTS: STORE IN A COOL DRY AREA. KEEP CONTAINER
| CLOSED WHEN NOT IN USE.

| SPECIAL SHIPPING INFORMATION: NONE

SECTION X - HMIS HAZARD RATING INFORMATION

FLAMMABILITY	REACTIVITY	HEALTH
1	0	2

SECTION XI - PREPARATION DATE OF MSDS

| PREPARED BY: TECHNICAL DEPARTMENT TELEPHONE # (905) 456-9444
| REVIEWED: OCTOBER 10, 2009

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