



# 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: D2A, D2B

MATERIAL REFERENCE NO: 581800

## SECTION I - MATERIAL IDENTIFICATION AND USE

MATERIAL NAME/I.D.: GLYCOL"E-45 DU-NI"	
CHEMICAL NAME : MIXTURE	CHEMICAL FAMILY :GLYCOLS
CHEMICAL FORMULA: MIXTURE	MOLECULAR WEIGHT: NOT AVAILABLE
SYNONYMS: NONE	
MATERIAL USE: FREEZE POINT DEPRESSANT	

## SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS INGREDIENTS	APPROX. % CONCENT.	TLV PPM	C.A.S. N.A. U.N. NUMBERS	LD 50 ORAL, RAT
ETHYLENE GLYCOL	30.0-60.0	50	107-21-1	4700 MG/KG
BALANCE NOT CONTROLLED				

## SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: LIQUID		
ODOUR AND APPEARANCE: CLEAR LIQUID; ODOURLESS.		
ODOUR THRESHOLD (PPM) NOT ESTABLISHED	SPECIFIC GRAVITY 1.05	VAPOUR PRESSURE (MM) NOT ESTABLISHED
VAPOUR DENSITY (AIR=1) NOT ESTABLISHED	EVAPORATION RATE (BUTYL ACETATE=1) <1	SOLUBILITY IN WATER (20°C) COMPLETE
BOILING POINT (C) >100	FREEZING POINT (C) -29 (APPROX.)	% VOLATILE (BY VOLUME) 100
pH (10% SOLUTION) NO DATA	DENSITY (G/ML) NOT APPLICABLE	COEF.OF WATER/OIL DISTR NOT AVAILABLE



#### SECTION IV - FIRE AND EXPLOSION HAZARD OF MATERIAL

FLAMMABILITY: NON-FLAMMABLE		
IF YES, UNDER WHICH CONDITIONS:		
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MEANS OF EXTINCTION: CO2, DRY CHEMICAL, WATER FOG, FOAM.		
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SPECIAL PROCEDURES: NONE APPLICABLE		
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FLASH POINT (C) AND METHOD: MINIMUM 116 (C)		
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HAZARDOUS COMBUSTION PRODUCTS: OXIDES OF CARBON.		
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UPPER EXPLOSION LIMIT	LOWER EXPLOSION LIMIT	AUTOIGNITION TEMP(C)
ETHYLENE GLYCOL 15.3 %	ETHYLENE GLYCOL 3.2 %	ETHYLENE GLYCOL 400
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EXPLOSION DATA SENSITIVITY	RATE OF BURNING	EXPLOSIVE POWER
TO CHEMICAL IMPACT		
NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
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SENSITIVITY TO STATIC DISCHARGE: NOT AVAILABLE		

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|CHEMICAL STABILITY:  STABLE
|IF NO, UNDER WHICH CONDITIONS:
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|INCOMPATIBILITY TO OTHER SUBSTANCES:  YES
|IF SO, WHICH ONES:  STRONG OXIDIZING MATERIALS, ALUMINUM METAL.
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|REACTIVITY AND UNDER WHAT CONDITIONS:  EXPLOSIVE DECOMPOSITION MAY
|OCCUR WHEN COMBINED WITH STRONG ACIDS OR BASES.
|HAZARDOUS POLYMERIZATION:  WILL NOT OCCUR.
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|HAZARDOUS DECOMPOSITION PRODUCTS:  OXIDES OF CARBON.
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ROUTE OF ENTRY:		
SKIN CONTACT: NO	SKIN ABSORPTION: NO	EYE CONTACT: YES
INHALATION: YES	INGESTION: YES	



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EFFECTS OF ACUTE EXPOSURE TO MATERIAL:  
EYES- MAY EYE IRRITATION, TEARING, REDNESS, SWELLING OF CONJUNCTIVA.  
SKIN-MAY CAUSE IRRITATION. PROLONGED CONTACT MAY CAUSE DERMATITIS IN SENSITIVE INDIVIDUALS.  
INHALATION-MAY CAUSE IRRITATION OF EYES, NOSE, THROAT AND RESPIRATORY TRACT AND CNS DEPRESSION.  
INGESTION-MAY CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, DIARRHEA.

EFFECTS OF CHRONIC EXPOSURE TO MATERIAL:  
PROLONGED OR REPEATED EXPOSURE TO HIGH CONCENTRATIONS MAY CAUSE LOSS OF APPETITE, AND LIVER, KIDNEY AND NEURAL DISFUNCTION.  
PRE-EXISTING SKIN, EYE OR RESPIRATORY DISORDERS, OR IMPAIRED KIDNEY FUNCTION MAY BE AGGRAVATED BY EXPOSURE TO ETHYLENE GLYCOL.  
INHALATION-OF MIST MAY PRODUCE SIGNS OF CNS INVOLVEMENT, PARTICULARLY DIZZINESS AND NYSTAGMUS.

LD 50 OF MATL. 6100-8540 MG/KG	LC 50 OF MATL. 10,000 MG/M3	EXPOSURE LIMITS NOT ESTABLISHED	IRRITANCY OF MATL TOXIC
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SENSITIZATION OF MATERIAL NOT AVAILABLE	SYNERGISTIC MATERIALS NOT AVAILABLE
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CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY:  
CARCINOGENIC-CLASSIFIED A4-NOT CLASSIFIED FOR HUMANS OR ANIMALS BY ACGIH. TERATOGEN-CLASSIFIED PROVEN FOR HUMANS.

## SECTION VII - PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT: GLOVES & GLASSES IF USING CONCENTRATE

GLOVES: RUBBER, PVC  
RESPIRATORY: NIOSH APPROVED AIR-PURIFYING FOR CONC. UP TO 500PPM  
AIR SUPPLIED RESPIRATOR IF CONC. IS HIGHER OR UNKNOWN.  
EYE: CHEMICAL GOGGLES  
FOOTWEAR: IMPERVIOUS  
CLOTHING: IMPERVIOUS APRON  
OTHER: EYE WASH  
ENGINEERING CONTROLS (EG VENTILATION, ENCLOSED PROCESS): SUFFICIENT MECHANICAL (GENERAL OR LOCAL EXHAUST) TO MAINTAIN TLV BELOW BELOW ACCEPTABLE LIMITS.

LEAK AND SPILL PROCEDURE: WEAR PROPER PROTECTIVE CLOTHING. CONTAIN SPILL. TRANSFER TO SUITABLE CONTAINER FOR REUSE OR DISPOSAL. ABSORB REMAINING MATERIAL ONTO INERT ABSORBANT. KEEP OUT OF SEWERS, STORM DRAINS AND WATERWAYS.

WASTE DISPOSAL:  
DISPOSE OF IN A LICENSED FACILITY IN ACCORDANCE WITH ALL FEDERAL, PROVINCIAL AND LOCAL REGULATIONS.



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## SECTION VIII - FIRST AID MEASURES

### PROCEDURES:

EYE CONTACT-FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ASSISTANCE IF IRRITATION PERSISTS.  
SKIN CONTACT-FLUSH THOROUGHLY WITH SOAP AND WATER. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.  
INHALATION-MOVE VICTIM TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. SEEK MEDICAL ATTENTION.  
INGESTION-INDUCE VOMITING BY EITHER GIVING IPECAC SYRUP OR PLACING FINGER AT BACK OF THROAT. NEVER GIVE ANYTHING TO AN UNCONSCIOUS OR CONVULSING PERSON. GET IMMEDIATE 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. USE IN WELL VENTILATED AREAS. WASH THOROUGHLY AFTER HANDLING.

STORAGE REQUIREMENTS: STORE IN A COOL, DRY AREA AWAY FROM INCOMPATIBLE MATERIALS. KEEP CONTAINER CLOSED WHEN NOT IN USE.

SPECIAL SHIPPING INFORMATION: NONE

## SECTION X - HAZARD RATING INFORMATION

FLAMMABILITY	REACTIVITY	TOXICITY
0	0	2

## SECTION XI - PREPARATION DATE OF MSDS

PREPARED BY: TECHNICAL DEPARTMENT      TELEPHONE # (905) 456-9444  
REVIEWED: DECEMBER 14, 2002

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