



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: 113300

SECTION I - MATERIAL IDENTIFICATION AND USE

MATERIAL NAME/I.D.: COOL LH	
CHEMICAL NAME: NOT APPLICABLE	CHEMICAL FAMILY: MIXTURE
CHEMICAL FORMULA: MIXTURE	MOLECULAR WEIGHT: NOT APPLICABLE
SYNONYMS: NONE	
MATERIAL USE: MACHINE TOOL COOLANT	

SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS INGREDIENTS	APPROX. % CONCENT.	TLV MG/M3	C.A.S. NUMBERS	LD 50 ORAL, RAT
TRIETHANOLAMINE	5.0-10.0	5	102-71-6	4190 MG/KG
ORGANIC PHOSPHATE	1.0-5.0	1	39464-70-5	NO DATA
ESTER				
2-PHOSPHONO-1,2,4	5.0-5.0	NO DATA	37971-36-1	>2000 MG/KG
BUTANE-TRICARBOXILIC				
ACID				

SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: LIQUID	
ODOUR AND APPEARANCE: OPAL, GREEN, CLEAR LIQUID; SLIGHT ODOUR.	
ODOUR THRESHOLD (PPM)	SPECIFIC GRAVITY
NOT ESTABLISHED	1.03
VAPOUR DENSITY (AIR=1)	EVAPORATION RATE
> 1	(WATER=1) 1
SOLUBILITY IN WATER	
(20°C) SOLUBLE	
BOILING POINT (C)	FREEZING POINT (C)
100	NOT AVAILABLE
% VOLATILE (BY WEIGHT)	
86	
pH (100% SOLUTION)	DENSITY (G/ML)
9.0-9.5	NOT APPLICABLE
COEF.OF WATER/OIL DISTR	
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: AS FOR SURROUNDING MATERIALS			
SPECIAL PROCEDURES: WEAR FULL PROTECTIVE EQUIPMENT INCLUDING SELF-			
CONTAINED BREATHING APPARATUS.			
FLASH POINT (C) AND METHOD: NONE TO BOILING.			
HAZARDOUS COMBUSTION PRODUCTS: OXIDES OF NITROGEN, PHOSPHOROUS AND			
CARBON.			
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 APPLICABLE 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: NOT ESTABLISHED			
HAZARDOUS POLYMERIZATION WILL NOT OCCUR.			
HAZARDOUS DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION WILL GIVE			
OXIDES OF NITROGEN, PHOSPHOROUS AND CARBON.			

SECTION VI - HEALTH HAZARD DATA

ROUTE OF ENTRY:			
SKIN CONTACT: YES SKIN ABSORPTION: YES EYE CONTACT: YES			
INHALATION: YES INGESTION: YES			



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| EFFECTS OF ACUTE EXPOSURE TO MATERIAL: |
| EYES-CONTACT MAY CAUSE MODERATE TO SEVERE IRRITATION, TEARING, |
| REDNESS. |
| SKIN-CONTACT MAY CAUSE IRRITATION, DRYING AND CRACKING OF SKIN. |
| INHALATION-MAY CAUSE IRRITATION OF EYES, NOSE AND THROAT. EXCESSIVE |
| BREATHING OF HIGH CONCENTRATIONS OF VAPOUR OR MIST MAY CAUSE CHEST |
| PAIN AND COUGHING. |
| INGESTION-MAY CAUSE IRRITATION AND BURNING OF LIPS, MOUTH AND THROAT |
| RESPIRATORY TRACT AND ESOPHAGUS, ABDOMINAL PAIN, NAUSEA, VOMITING, |
| DIARRHEA. |
| |
| |

| EFFECTS OF CHRONIC EXPOSURE TO MATERIAL: |
| EYES-MAY CAUSE CORNEAL INJURY, CONJUNCTIVITIS. |
| SKIN-MAY CAUSE SENSITIZATION AND AN ALLERGIC SKIN REACTION IN A |
| SMALL PROPORTION OF INDIVIDUALS. |
| INGESTION-MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. |
| TRIETHANOLAMINE IS TOXIC TO BLOOD, KIDNEYS AND LIVER. |
| |

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

| SENSITIZATION OF MATERIAL | SYNERGISTIC MATERIALS |
| NOT AVAILABLE | NOT AVAILABLE |

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

SECTION VII - PREVENTIVE MEASURES

| PERSONAL PROTECTIVE EQUIPMENT: |

| GLOVES: IMPERMEABLE |
| RESPIRATORY: NONE FOR NORMAL USE |
| EYE: SAFETY GLASSES OR CHEMICAL GOGGLES |
| FOOTWEAR: NO SPECIAL REQUIREMENTS |
| CLOTHING: NO SPECIAL REQUIREMENTS |
| OTHER: EYE WASH AND SAFETY SHOWER |
| ENGINEERING CONTROLS (EG VENTILATION, ENCLOSED PROCESS): LOCAL OR |
| MECHANICAL VENTILATION TO MAINTAIN TLV WITHIN ACCEPTABLE LIMITS. |

| LEAK AND SPILL PROCEDURE: CONTAIN SPILL. TRANSFER TO SUITABLE |
| CONTAINER FOR RECLAIM OR DISPOSAL. ABSORB REMAINING MATERIAL ONTO |
| INERT ABSORBENT AND SCOOP INTO DISPOSAL CONTAINER. FLUSH RESIDUAL |
| WITH VOLUMES OF WATER. |

| 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 WITH QUANTITIES OF WATER FOR AT LEAST 15 MINUTES WHILE |
| HOLDING EYELIDS OPEN. IF IRRITATION PERSISTS, SEEK MEDICAL |
| ATTENTION. |
| SKIN-WASH THOROUGHLY WITH SOAP AND WATER. IF IRRITATION PERSISTS, |
| SEEK MEDICAL ASSISTANCE. |
| INHALATION-REMOVE TO FRESH AIR. IF SYMPTOMS OCCUR, GET MEDICAL |
| ATTENTION. |
| INGESTION-IF SWALLOWED DO NOT INDUCE VOMITING. GIVE 2 GLASSES OF |
| MILK OR WATER. NEVER GIVE ANYTHING BY MOUTH IF PERSON IS UNCONSCIOUS |
OR CONVULSING. 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. |
WASH THOROUGHLY AFTER HANDLING.
STORAGE REQUIREMENTS: STORE IN A COOL, DRY AREA. KEEP FROM FREEZING.
KEEP CONTAINER CLOSED WHEN NOT IN USE.

SPECIAL SHIPPING INFORMATION: HEATED

SECTION X - HMIS HAZARD RATING INFORMATION

| FLAMMABILITY | REACTIVITY | HEALTH |
| 0 | 0 | 2 |

SECTION XI - PREPARATION DATE OF MSDS

| PREPARED BY: TECHNICAL DEPARTMENT TELEPHONE # (905) 456-9444 |
REVIEWED: JUNE 14, 2009

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