



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:
B3, D1B, E

MATERIAL REFERENCE NO: 745000

SECTION I - MATERIAL IDENTIFICATION AND USE

MATERIAL NAME/I.D.: KEMTREET 450	
CHEMICAL NAME: NOT APPLICABLE	CHEMICAL FAMILY: AMINE MIXTURE
CHEMICAL FORMULA: MIXTURE	MOLECULAR WEIGHT: NOT APPLICABLE
SYNONYMS: NONE	
MATERIAL USE: STEAM LINE ANTI-CORROSION TREATMENT	

SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS INGREDIENTS	APPROX. % CONCENT.	TWA PPM	C.A.S. NUMBERS	LD 50 ORAL, RAT
CYCLOHEXYLAMINE	5.0-10.0	10	108-91-8	11 MG/KG

SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: LIQUID		
ODOUR AND APPEARANCE: CLEAR, AMBER LIQUID; AMINE ODOUR.		
ODOUR THRESHOLD (PPM)	SPECIFIC GRAVITY	VAPOUR PRESSURE (MM)
NOT AVAILABLE	0.994	NOT AVAILABLE
VAPOUR DENSITY (AIR=1)	EVAPORATION RATE	SOLUBILITY IN WATER
NOT AVAILABLE	NOT ESTABLISHED	(20°C) SOLUBLE
BOILING POINT (C)	FREEZING POINT (C)	% VOLATILE (BY WEIGHT)
93.3	NOT AVAILABLE	99
pH (10% SOLUTION)	DENSITY (G/ML)	COEF.OF WATER/OIL DISTR
11.2-11.8	NOT APPLICABLE	NOT AVAILABLE



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SECTION IV - FIRE AND EXPLOSION HAZARD OF MATERIAL

FLAMMABILITY: COMBUSTIBLE			
IF YES, UNDER WHICH CONDITIONS: HIGH TEMPERATURES, DIRECT IGNITION			
SOURCES			
MEANS OF EXTINCTION: DRY CHEMICALS, ALCOHOL FOAM, CARBON DIOXIDE,			
WATER FOG.			
SPECIAL PROCEDURES: WEAR FULL PROTECTIVE GEAR INCLUDING SELF-			
CONTAINED BREATHING APPARATUS. VAPOURS ARE HEAVIER THAN AIR AND MAY			
TRAVEL TO IGNITION SOURCE AND FLASH BACK.			
FLASH POINT (C) AND METHOD: 60 (TCC)			
HAZARDOUS COMBUSTION PRODUCTS: MAY EVOLVE NITROGEN OXIDES, CARBON			
DIOXIDE, CARBON MONOXIDE, AMMONIA, CYANIDES, TOXIC FUMES,			
HYDROCARBONS.			
UPPER EXPLOSION LIMIT			
NOT AVAILABLE			
LOWER EXPLOSION LIMIT			
NOT AVAILABLE			
AUTOIGNITION TEMP(C)			
NOT AVAILABLE			
EXPLOSION DATA SENSITIVITY			
TO CHEMICAL IMPACT			
NOT AVAILABLE			
RATE OF BURNING			
NOT AVAILABLE			
EXPLOSIVE POWER			
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 ACIDS, OXIDIZING AGENTS, REDUCING AGENTS,			
COPPER, ZINC, ALUMINUM, NITROGEN COMPOUNDS.			
REACTIVITY AND UNDER WHAT CONDITIONS: NO DATA			
HAZARDOUS POLYMERIZATION WILL NOT OCCUR.			
HAZARDOUS DECOMPOSITION PRODUCTS: NITROGEN OXIDES, CARBON DIOXIDE,			
CARBON MONOXIDE, AMMONIA, CYANIDES.			

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-CORROSIVE. CONTACT MAY CAUSE EYE DAMAGE AND BLINDNESS, |
|TRANSIENT VISUAL DISTURBANCES, STINGING, BURNING, INTENSE WATERING, |
|MAY PRODUCE CORNEAL EDEMA. |
|SKIN-CORROSIVE. CONTACT MAY CAUSE CHEMICAL BURNS, REDNESS, SWELLING, |
|ITCHING, TINGLING, INFLAMMATION. |
|INHALATION-OF MIST MAY CAUSE MODERATE IRRITATION OF RESPIRATORY |
|TRACT, COUGHING, SHORTNESS OF BREATH, CHEST PAIN. |
|INGESTION-MAY CAUSE SEVERE IRRITATION OR BURNS TO MOUTH, THROAT, |
ESOPHAGUS AND STOMACH, NAUSEA, VOMITING, DIARRHEA.

|EFFECTS OF CHRONIC EXPOSURE TO MATERIAL: |
|PROLONGED OR REPEATED OVEREXPOSURES MAY RESULT IN ABSORPTION OF |
|POTENTIALLY HARMFUL AMOUNTS OF MATERIAL. |

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

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

|CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY |
|REPRODUCTIVE EFFECTS-CYLCOHEXYLAMINE MAY CAUSE ADVERSE REPRODUCTIVE |
|EFFECTS BASED ON ANIMAL DATA. |

SECTION VII - PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

| GLOVES: RUBBER OR VINYL |
|RESPIRATORY: NIOSH APPROVED RESPIRATOR FOR VAPOURS. |
| EYE: FACE SHIELD OR SAFETY GOGGLES |
| CLOTHING: IMPERMEABLE |
| OTHER: EYE WASH AND SAFETY SHOWER |
|ENGINEERING CONTROLS (EG VENTILATION, ENCLOSED PROCESS): LOCAL |
EXHAUST AS NECESSARY TO MAINTAIN EXPOSURES WITHIN ACCEPTABLE LIMITS.

|LEAK AND SPILL PROCEDURE: WEAR RECOMMENDED PROTECTIVE EQUIPMENT. |
|CONTAIN SPILL. PROVIDE VENTILATION. REMOVE IGNITION SOURCES. TRANSFER |
|MATERIAL TO SUITABLE CONTAINER FOR RECLAIM OR DISPOSAL. ABSORB |
|REMAINING MATERIAL ONTO INERT ABSORBANT AND SCOOP INTO DISPOSAL |
CONTAINER.

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



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SECTION VIII - FIRST AID MEASURES

| PROCEDURES: EYES-IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT |
| LEAST 15 MINUTES. GET IMMEDIATE MEDICAL ASSISTANCE. |
| SKIN-REMOVE CONTAMINATED CLOTHING AND FLUSH AFFECTED AREA WITH |
| WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION. LAUNDER |
| CLOTHING BEFORE REUSE. |
| INHALATION-MOVE VICTIM TO FRESH AIR. IF NOT BREATHING, GIVE |
| ARTIFICIAL RESPIRATION. IS BREATHING IS DIFFICULT GET IMMEDIATE |
| MEDICAL ATTENTION. |
| INGESTION-DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH 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.	PG
CORROSIVE LIQUID, FLAMMABLE, N.O.S.	8(3)	2920	II
(CYCLOHEXYLAMINE)			

| HANDLING PROCEDURES AND EQUIPMENT: AVOID CONTACT WITH EYES, SKIN AND |
| CLOTHING. USE ONLY IN ADEQUATELY VENTILATED AREAS. DO NOT USE NEAR |
| IGNITION SOURCES. WASH THOROUGHLY AFTER HANDLING. |

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

| SPECIAL SHIPPING INFORMATION: NONE |

SECTION X - HMIS HAZARD RATING INFORMATION

FLAMMABILITY	REACTIVITY	HEALTH
2	0	2

SECTION XI - PREPARATION DATE OF MSDS

PREPARED BY: TECHNICAL DEPARTMENT	TELEPHONE # (905) 456-9444
REVISED: OCTOBER 10, 2009	REPLACES: FEBRUARY 10, 2006

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