



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: 577500

SECTION I - MATERIAL IDENTIFICATION AND USE

MATERIAL NAME/I.D.: KEMTREET RT 775	
CHEMICAL NAME: NOT APPLICABLE	CHEMICAL FAMILY: AMINE MIXTURE
CHEMICAL FORMULA: MIXTURE	MOLECULAR WEIGHT: NOT APPLICABLE
SYNONYMS: BLENDED NEUTRALIZING AMINE	
MATERIAL USE: CORROSION CONTROL - STEAM BOILERS	

SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS INGREDIENTS	APPROX. % CONCENT.	TWA PPM	C.A.S. NUMBERS	LD 50 ORAL, RAT
CYCLOHEXYLAMINE	10.0-30.0	10	108-91-8	156 MG/KG
MORPHOLINE	10.0-30.0	20	110-91-8	1450 MG/KG

SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: LIQUID	
ODOUR AND APPEARANCE: CLEAR, AMBER LIQUID; AMINE ODOUR.	
ODOUR THRESHOLD (PPM)	SPECIFIC GRAVITY
NOT AVAILABLE	0.978
VAPOUR DENSITY (AIR=1)	EVAPORATION RATE
NOT AVAILABLE	NOT ESTABLISHED
SOLUBILITY IN WATER	(20°C) SOLUBLE
BOILING POINT (C)	FREEZING POINT (C)
NOT AVAILABLE	NOT AVAILABLE
% VOLATILE (BY WEIGHT)	>80
pH (10% SOLUTION)	DENSITY (G/ML)
10.5-11.5	NOT APPLICABLE
COEF.OF WATER/OIL DISTR	NOT AVAILABLE



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SECTION IV - FIRE AND EXPLOSION HAZARD OF MATERIAL

FLAMMABILITY: COMBUSTIBLE		
IF YES, UNDER WHICH CONDITIONS: OPEN FLAME, SPARKS, HIGH		
TEMPERATURES		
MEANS OF EXTINCTION: ALCOHOL FOAM, CARBON DIOXIDE, WATER SPRAY.		
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: 46.1 (TCC)		
HAZARDOUS COMBUSTION PRODUCTS: MAY EVOLVE NITROGEN OXIDES, SMOKE,		
SOOT, CARBON DIOXIDE, CARBON MONOXIDE, AMMONIA, FORMALDEHYDE,		
ACETALDEHYDE.		
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: AVOID CONTACT WITH STRONG ACIDS, OXIDIZING AGENTS		
REACTIVE METALS AND NITRITES.		
REACTIVITY AND UNDER WHAT CONDITIONS: MORPHOLINE MAY BE EXPLOSIVE IN		
CONTACT WITH OXIDIZING AGENTS.		
HAZARDOUS POLYMERIZATION WILL NOT OCCUR.		
HAZARDOUS DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION MAY EVOLVE		
NITROUS OXIDES. CARBON MONOXIDE, CARBON DIOXIDE, CARBON MONOXIDE,		
AMMONIA, FORMALDEHYDE, ACETALDEHYDES, KETONES.		

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 BURNS, STINGING, INTENSE,
WATERING, SEVERE DAMAGE AND BLINDNESS.
SKIN- CORROSIVE. CONTACT MAY CAUSE BURNS WITH DISCOMFORT OR PAIN,
REDNESS, SWELLING, TISSUE DAMAGE.
INHALATION-OF MIST MAY CAUSE SEVERE IRRITATION OF RESPIRATORY TRACT,
NASAL DISCOMFORT AND DISCHARGE, CHEST PAIN, COUGHING. VAPOURS MAY
CAUSE PULMONARY EDEMA.
INGESTION-MAY CAUSE SEVERE IRRITATION AND POSSIBLE BURNS TO
DIGESTIVE TRACT. MAY CAUSE INFLAMMATION OF MOUTH, THROAT, ESOPHAGUS
AND STOMACH. TOXIC BY INGESTION. CAN CAUSE NAUSEA, VOMITING, LOSS OF
APPETITE.

EFFECTS OF CHRONIC EXPOSURE TO MATERIAL:
SKIN-PROLONGED OR WIDESPREAD CONTACT 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
NOT A CARCINOGEN.
REPRODUCTIVE EFFECTS-CYLCOHEXYLAMINE CAUSES PATERNAL EFFECTS IN
ANIMAL STUDIES AT MODERATE TO HIGH DOSAGES.
MUTAGENICITY-CYLCOHEXYLAMINE CAUSES SOME CHROMASOMAL ABBERATRIONS IN
ANIMALS. SEVERAL OTHER INVESTIGATIONS HAVE NEGATIVE RESULTS.
TERATOGENICITY-CYLCOHEXYLAMINE CAUSES POST-IMPLANT MORTALITY IN
ANIMALS FROM DOSAGES NEAR THE LC50.
MORPHOLINE MAY REACT WITH NITRITES TO FORM N-NITROSAMINES (KNOWN
CARCINOGENS)

SECTION VII - PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

GLOVES: IMPERVIOUS (i.e. RUBBER OR VINYL)
RESPIRATORY: NIOSH APPROVED FOR VAPOURS. USE A POSITIVE-PRESSURE
AIR-SUPPLIED RESPIRATOR IF EXPOSURE LEVELS ARE HIGH.
EYE: FACE SHIELD OR SAFETY GOGGLES
CLOTHING: IMPERMEABLE
OTHER: EYE WASH AND SAFETY SHOWER
ENGINEERING CONTROLS (EG VENTILATION, ENCLOSED PROCESS): LOCAL
EXHAUST RECOMMENDED IF USED IN CONFINED AREAS OR IF TLV IS EXCEEDED.

LEAK AND SPILL PROCEDURE: ELIMINATE ALL IGNITION SOURCES. CONTAIN
SPILL. PROVIDE VENTILATION. TRANFER 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 WHILE HOLDING EYELIDS OPEN. GET IMMEDIATE MEDICAL |
| ASSISTANCE. |
| SKIN-REMOVE CONTAMINATED CLOTHING AND FLUSH AFFECTED AREA WITH |
| WATER FOR AT LEAST 15 MINUTES. GET IMMEDIATE MEDICAL ASSISTANCE. |
| LAUNDER CLOTHING BEFORE REUSE. |
| INHALATION-MOVE VICTIM TO FRESH AIR. IF BREATHING IS DIFFICULT, GIVE |
| OXYGEN. GET MEDICAL ATTENTION. |
| INGESTION, IF SWALLOWED-DO NOT INDUCE VOMITING. SLOWLY GIVE 1-2 |
| GLASSES OF WATER OR MILK. GET IMMEDIATE MEDICAL ATTENTION. NEVER |
| GIVE ANYTHING BY MOUTH TO A CONVULSING OR UNCONSCIOUS PERSON. |

| 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
CORROSIVE LIQUID, FLAMMABLE N.O.S.	8 (3)	2920	II
(CYCLOHEXYLAMINE)			

| HANDLING PROCEDURES AND EQUIPMENT: AVOID CONTACT WITH EYES, SKIN AND |
| CLOTHING. USE IN WELL-VENTILATED AREA. 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 |
| REVIEWED: MAY 27, 2009 |

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