



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: D1A, D2A, E

MATERIAL REFERENCE NO: 284700

SECTION I - MATERIAL IDENTIFICATION AND USE

MATERIAL NAME/I.D.: THERMAKEM	
CHEMICAL NAME: NOT APPLICABLE	CHEMICAL FAMILY: INORGANIC ACIDS
CHEMICAL FORMULA: MIXTURE	MOLECULAR WEIGHT: MIXTURE
SYNONYMS: NONE	
MATERIAL USE: ACID CLEANING COMPOUND	

SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS INGREDIENTS	APPROX. CONCENT.	TLV MG/M3	C.A.S. NUMBERS	LD 50 RAT, ORAL	LC 50 RAT INHALATION
SULPHURIC ACID	60-100	>1	7664-93-9	2140 MG/KG	510 MG/M3/2H

SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: LIQUID		
ODOUR AND APPEARANCE: PINK, VISCOUS LIQUID; LOW ODOUR.		
ODOUR THRESHOLD (PPM) 0.2	SPECIFIC GRAVITY 1.8	VAPOUR PRESSURE 0.0018 MM of Hg
VAPOUR DENSITY (AIR=1) GREATER THAN 3.4	EVAPORATION RATE (WATER=1) LESS THAN 1	SOLUBILITY IN WATER (20 ° C) COMPLETE
BOILING POINT (C) 327	FREEZING POINT (C) 10.5	% VOLATILE (BY WEIGHT) NOT AVAILABLE
pH (1.0% SOLUTION) 1.7	DENSITY (G/ML) 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. AVOID USING WATER AS IT GENERATES HEAT AND CAUSES SPLATTERING. 		
FLASH POINT (C) AND METHOD: NONE (TCC) 		
HAZARDOUS COMBUSTION PRODUCTS: MAY EVOLVE SULPHUR DIOXIDE VAPOURS ON BOILING 		
UPPER EXPLOSION LIMIT NOT APPLICABLE	LOWER EXPLOSION LIMIT NOT APPLICABLE	AUTOIGNITION TEMP(C) NOT APPLICABLE
EXPLOSION DATA SENSITIVITY TO CHEMICAL IMPACT NOT AVAILABLE	RATE OF BURNING NOT APPLICABLE	EXPLOSIVE POWER NOT AVAILABLE
SENSITIVITY TO STATIC DISCHARGE: NOT AVAILABLE 		

SECTION V - REACTIVITY DATA

CHEMICAL STABILITY: NORMALLY STABLE IF NO, UNDER WHICH CONDITIONS: UNDER FIRE CONDITIONS IT DECOMPOSES TO SULPHUR DIOXIDE. 		
INCOMPATIBILITY TO OTHER SUBSTANCES: YES IF SO, WHICH ONES: STRONG ALKALIES, ORGANIC MATERIALS SUCH AS CHLORATES, CARBIDES, FULMINATES, NITRATES AND PICARATES. SOME METALS 		
REACTIVITY AND UNDER WHAT CONDITIONS: REACTS VIOLENTLY WITH ALKALIES CAN REACT WITH SOME ORGANIC MATERIALS TO CAUSE FIRES AND EXPLOSIONS. (REF. INCOMPATIBILITY SECTION) CAN REACT WITH SOME METALS TO FORM FLAMMABLE HYDROGEN GAS. 		
HAZARDOUS DECOMPOSITION PRODUCTS: SULPHUR DIOXIDE, SULPHURIC ACID VAPOURS, SULPHUR TRIOXIDE. 		

SECTION VI - HEALTH HAZARD DATA

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



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EFFECTS OF ACUTE EXPOSURE TO MATERIAL: EYES-IMMEDIATE PAIN, SEVERE BURNS AND CORNEAL DAMAGE, POSSIBLE BLINDNESS. SKIN-CONTACT MAY CAUSE PAIN AND SEVERE BURNS TO SKIN AND BROWNISH OR YELLOW STAINS. INHALATION-MISTS AND VAPOURS MAY CAUSE IRRITATION OF EYES, SKIN AND RESPIRATORY TRACT. MAY CAUSE INCREASED PULMONARY RESISTANCE, TRANSIENT COUGH AND BRONCHOCONSTRICTION. SEVERE OVEREXPOSURE MAY RESULT IN LUNG COLAPSE AND PULMONARY EDEMA WHICH MAY BE FATAL. INGESTION-SEVERE BURNING AND PAIN IN MOUTH, THROAT AND ABDOMEN. VOMITING, DIARRHEA AND PERFORATION OF ESOPHAGUS AND STOMACH LINING.

EFFECTS OF CHRONIC EXPOSURE TO MATERIAL: SKIN-PROLONGED OR REPEATED EXPOSURE TO DILUTE SOLUTIONS MAY CAUSE IRRITATION, REDNESS, PAIN AND DRYING AND CRACKING OF SKIN. INHALATION-PROLONGED/REPEATED EXPOSURE MAY RESULT IN IMPAIRED LUNG FUNCTION AND POSSIBLE DISCOLOURATION AND ERROSION OF TEETH. NOTE-CORROSIVE EFFECTS ON SKIN AND EYES MAY BE DELAYED, AND DAMAGE MAY OCCUR WITHOUT PAIN. GET MEDICAL ATTENTION IMMEDIATELY.

LD 50 OF MATL. RAT, ORAL 2140 MG/KG	LC 50 OF MATL. RAT, INHALATION 90 PPM/4HOURS	EXPOSURE LIMIT(S) TLV 1 MG/M3 0.25 PPM	IRRITANCY OF MATL EXTREMELY CORROSIVE
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SENSITIZATION OF MATERIAL NOT AVAILABLE	SYNERGISTIC MATERIALS NOT AVAILABLE
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CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY
SULPHURIC ACID IS A CANCER HAZARD.

SECTION VII - PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

GLOVES: NEOPRENE, PVC
RESPIRATORY: APPROVED AIR PURIFYING RESPIRATOR WITH ACID GAS/FUME,
DUST, MIST CARTRIGES FOR CONCENTRATIONS UP TO 10 MG/M3.
EYE: CHEMICAL GOGGLES AND FACE SHIELD
FOOTWEAR: RUBBER BOOTS
CLOTHING: RUBBER APRON
OTHER: EYE WASH AND SAFETY SHOWER
ENGINEERING CONTROLS (EG VENTILATION, ENCLOSED PROCESS): ADEQUATE TO
MAINTAIN VAPOURS BELOW EXPOSURE GUIDELINES.

LEAK AND SPILL PROCEDURE: WEAR PROTECTIVE CLOTHING. CONTAIN SPILL.
DIKE WITH INERT MATERIAL (SAND, EARTH, ETC.). TRANSFER TO CONTAINER
FOR RECLAIM OR DISPOSAL. CAREFULLY ABSORB REMAINING MATERIAL ONTO
INERT, DRY ABSORBANT AND SCOOP INTO DISPOSAL CONTAINER. NEUTRALIZE
REMAINING RESIDUE WITH DILUTE SOLUTION OF SODIUM CARBONATE. FLUSH
WITH VOLUMES OF WATER. PREVENT ENTRY INTO SEWERS, LAKES & WATERWAYS.

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



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SECTION VIII - FIRST AID MEASURES

PROCEDURES: EYES- IMMEDIATELY FLUSH WITH RUNNING WATER FOR AT LEAST 20 MINUTES. HOLD EYELIDS OPEN DURING FLUSHING. REPEAT IF IRRITATION PERSISTS. GET IMMEDIATE MEDICAL ASSISTANCE.
SKIN-FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 20 MINUTES. REMOVE CONTAMINATED CLOTHING. REPEAT FLUSHING IF IRRITATION PERSISTS. OBTAIN IMMEDIATE MEDICAL ATTENTION. LAUNDER CLOTHING BEFORE REUSE.
INHALATION-REMOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION ONLY IF BREATHING HAS STOPPED. GIVE CARDIOPULMONARY RESUSITATION IF THERE IS NO BREATHING AND NO PULSE. GET IMMEDIATE MEDICAL ATTENTION.
INGESTION-IF VICTIM IS ALERT AND NOT CONVULSING GIVE 1/2 TO 1 GLASS OF WATER. IF VOMITING OCCURS GIVE FLUIDS AGAIN. IMMEDIATELY CONTACT A POISON CONTROL CENTRE. IMMEDIATELY TRANSPORT TO EMERGENCY FACILITY

SOURCES USED: RAW MATERIAL SUPPLIER'S MATERIAL SAFETY DATA SHEETS

ADDITIONAL INFORMATION: HANDLE WITH EXTREME CARE.

SECTION IX - TDG SHIPPING INFORMATION

SHIPPING NAME	CLASS	UN NO.	PACKING GROUP
SULPHURIC ACID SOLUTION	8	1830	II

HANDLING PROCEDURES AND EQUIPMENT: USE EXTREME CAUTION. WEAR PROPER PROTECTIVE CLOTHING. AVOID CONTACT WITH SKIN AND EYES. DO NOT GET ON CLOTHING. WASH THOROUGHLY AFTER HANDLING.

STORAGE REQUIREMENTS: ALWAYS STORE IN ORIGINAL CONTAINER, TIGHTLY SEALED AND AWAY FROM EASILY OXIDIZED OR ACID SENSITIVE MATERIALS. FOLLOW LABEL DIRECTIONS.

SPECIAL SHIPPING INFORMATION: DO NOT SHIP WITH ALKALIES

SECTION X - HMIS HAZARD RATING INFORMATION

FLAMMABILITY	REACTIVITY	HEALTH
0	2	3

SECTION XI - PREPARATION DATE OF MSDS

PREPARED BY: TECHNICAL DEPARTMENT TELEPHONE # (905) 456-9444
REVIEWED: MAY 23, 2003

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