



# 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, VISCOS 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 BRONCHOCONSTRICITION. 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 EROSION 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.	LC 50 OF MATL.	EXPOSURE LIMIT(S)	IRRITANCY OF MATL
RAT, ORAL 2140 MG/KG	RAT, INHALATION 90 PPM/4HOURS	TLV 1 MG/M3 0.25 PPM	EXTREMELY CORROSIVE

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 SULPHURIC ACID SOLUTION	CLASS 8	UN NO. 1830	PACKING GROUP II
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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 0	REACTIVITY 2	HEALTH 3
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## SECTION XI - PREPARATION DATE OF MSDS

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

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