



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, E

MATERIAL REFERENCE NO: 265800

SECTION I - MATERIAL IDENTIFICATION AND USE

MATERIAL NAME/I.D.: SCALZOFF	
CHEMICAL NAME: NOT APPLICABLE	CHEMICAL FAMILY: ACID BLEND
CHEMICAL FORMULA: MIXTURE	MOLECULAR WEIGHT: NOT APPLICABLE
SYNONYMS: NONE	
MATERIAL USE: DISHWASHER DE-SCALER	

SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS INGREDIENTS	APPROX. CONCENT.	TLV PPM	C.A.S. NUMBERS	LD 50 ORAL, RAT
PHOSPHORIC ACID	40.0-70.0	1 MG/M3	7664-38-2	1530 MG/KG
CITRIC ACID	5.0-10.0	NO DATA	77-92-9	3000 MG/KG

SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: LIQUID		
ODOUR AND APPEARANCE: DARK RED LIQUID, ALMOST ODOURLESS		
ODOUR THRESHOLD (PPM)	SPECIFIC GRAVITY	VAPOUR PRESSURE (MM)
NOT AVAILABLE	1.416	NOT AVAILABLE
VAPOUR DENSITY (AIR=1)	EVAPORATION RATE	SOLUBILITY IN WATER
> 1	> 1	(20 ø C) COMPLETE
BOILING POINT (C)	FREEZING POINT (C)	% VOLATILE (BY WEIGHT)
100	NOT AVAILABLE	42
pH (10% SOLUTION)	DENSITY (G/ML)	COEF.OF WATER/OIL DISTR
2.3	NOT APPLICABLE	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: WATER FOG, CHEMICAL FOAM, CARBON DIOXIDE			
SPECIAL PROCEDURES: WEAR FULL PROTECTIVE GEAR INCLUDING SELF			
CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH			
WATER.			
FLASH POINT (C) AND METHOD: NONE (TCC)			
HAZARDOUS COMBUSTION PRODUCTS: CARBON DIOXIDE, CARBON MONOXIDE,			
PHOSPHOROUS OXIDE AND ORGANIC GASES.			
UPPER EXPLOSION LIMIT LOWER EXPLOSION LIMIT AUTOIGNITION TEMP (C)			
NOT APPLICABLE NOT APPLICABLE 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:			
HAZARDOUS POLYMERIZATION WILL NOT OCCUR.			
INCOMPATIBILITY TO OTHER SUBSTANCES: YES			
IF SO, WHICH ONES: STRONG OXIDIZING AGENTS, STRONG BASES, METALS,			
SULPHUR TRIOXIDE, PHOSPHOROUS PENTOXIDE, CARBON.			
REACTIVITY AND UNDER WHAT CONDITIONS: REACTS VIGOROUSLY WITH			
ALKALIES. REACTS WITH MILD STEEL (AND SOME OTHER METALS) TO RELEASE			
HYDROGEN.			
HAZARDOUS DECOMPOSITION PRODUCTS: MAY EVOLVE PHOSPHOROUS OXIDE AND			
OTHER ORGANIC GASES.			

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 TO EYE TISSUE AND MAY CAUSE SEVERE DAMAGE AND
BLINDNESS.
SKIN-CONTACT CAUSES BURNS. MAY CAUSE SEVERE IRRITATION, INFLAMMATION
PAINFUL BLISTERS.
INHALATION-MAY CAUSE IRRITATION OF UPPER RESPIRATORY TRACT, COUGHING
SHORTNESS OF BREATH, HEADACHES. VAPOURS MAY CAUSE PULMONARY EDEMA.
INGESTION-CORROSIVE. MAY CAUSE SEVERE PAIN IN MOUTH, CHEST AND
ABDOMEN, LEADING TO COUGH, VOMITING AND COLLAPSE. CAUSES NAUSEA,
VOMITING AND DIARRHEA.

EFFECTS OF CHRONIC EXPOSURE TO MATERIAL:
SKIN-DERMATITIS MAY OCCUR FROM PROLONGED OR REPEATED EXPOSURES.

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

SENSITIZATION OF MATERIAL	SYNERGISTIC MATERIALS
NOT AVAILABLE	NOT AVAILABLE

CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY
CONTAINS TRACE AMOUNTS OF FORMALDEHYDE WHICH IS A KNOWN CARCINOGEN.

SECTION VII - PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

GLOVES: RUBBER OR PLASTIC
RESPIRATORY: IF MIST IS PRESENT WEAR OSHA/NIOSH APPROVED CANISTER
FOR ACID MISTS.
EYE: FACE SHIELD OR CHEMICAL GOGGLES.
FOOTWEAR: RUBBER
CLOTHING: RUBBER APRON WHEN HANDLING CONCENTRATE.
OTHER: EYE WASH AND SAFETY SHOWER
ENGINEERING CONTROLS (EG VENTILATION, ENCLOSED PROCESS): LOCAL
VENTILATION IF MIST IS PRESENT.

LEAK AND SPILL PROCEDURE: CONTAIN SPILL. WEAR RECOMMENDED PROTECTIVE
EQUIPMENT. PREVENT ENTRY INTO SEWERS AND STREAMS. TRANSFER TO
SUITABLE CONTAINER FOR REUSE OR DISPOSAL. NEUTRALIZE RESIDUAL WITH
LIME SLURRY, LIMESTONE OR SODA ASH. ABSORB ONTO INERT DRY MATERIAL
AND SCOOP INTO DISPOSAL CONTAINER.

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



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SECTION VIII - FIRST AID MEASURES

PROCEDURES:
EYES-IMMEDIATELY FLUSH WITH RUNNING WATER FOR AT LEAST 15 MINUTES.
REPEAT IF IRRITATION PERSISTS. GET PROMPT MEDICAL ATTENTION.
SKIN-REMOVE CONTAMINATED CLOTHING AND IMMEDIATELY FLUSH AFFECTED
AREA WITH WATER FOR AT LEAST 15 MINUTES. GET IMMEDIATE MEDICAL
ATTENTION. LAUNDER CLOTHING BEFORE RE-USE.
INHALATION-REMOVE VICTIM TO FRESH AIR. IF SYMPTOMS PERSIST, CONTACT
A PHYSICIAN.
INGESTION-DO NOT INDUCE VOMITING. RINSE MOUTH WITH WATER. GIVE 2
GLASSES OF WATER IF VICTIM IS CONSCIOUS AND NOT CONVULSING. CONTACT
A PHYSICIAN IMMEDIATELY.

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, N.O.S.	8	1760	III
(PHOSPHORIC ACID)			

HANDLING PROCEDURES AND EQUIPMENT: AVOID CONTACT WITH EYES, SKIN AND
CLOTHING. WEAR RECOMMENDED PROTECTIVE EQUIPMENT. WASH THOROUGHLY
AFTER HANDLING.

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

SPECIAL SHIPPING INFORMATION: KEEP FROM FREEZING

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: OCTOBER 4, 2009

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