



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, B3

MATERIAL REFERENCE NO: 2870000

SECTION I - MATERIAL IDENTIFICATION AND USE

MATERIAL NAME/I.D.: V-CLEANER	
CHEMICAL NAME: NOT APPLICABLE	CHEMICAL FAMILY: ACID BLEND
CHEMICAL FORMULA: MIXTURE	MOLECULAR WEIGHT: MIXTURE
SYNONYMS: NONE	
MATERIAL USE: STAINLESS STEEL AND ALUMINUM CLEANER, DESCALER,	
& SANITIZER	

SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS INGREDIENTS	APPROX. % CONCENT.	TLV PPM	C.A.S. NUMBERS	LD 50 ORAL, RAT
LACTIC ACID	10.0-30.0	NO DATA	50-21-5 2	3500 MG/KG
SODIUM ETHYL HEXYL SULFATE	1.0-5.0	NO DATA	126-92-1 2	6500 MG/KG
ETHYL ALCOHOL	1.0-5.0	1000	64-17-5	5600 MG/KG
ALCOHOL ETHOXYLATE	1.0-5.0	NO DATA	68131-39-5	2000 MG/KG

SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: LIQUID		
ODOUR AND APPEARANCE: CLEAR, LIQUID; MILD, LOW ODOUR.		
ODOUR THRESHOLD (PPM) NOT APPLICABLE	SPECIFIC GRAVITY 1.05-1.10	VAPOUR PRESSURE (MM) NOT AVAILABLE
VAPOUR DENSITY (AIR=1) > 1	EVAPORATION RATE (WATER = 1) ~1	SOLUBILITY IN WATER (20°C) SOLUBLE
BOILING POINT (C) 64.4 (Ethanol)	FREEZING POINT (C) < 0	% VOLATILE (BY WEIGHT) > 50
pH (1.0% SOLUTION) 1.5-2.0	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: COMBUSTABLE			
IF YES, UNDER WHICH CONDITIONS:			
MEANS OF EXTINCTION: AS APPROPRIATE FOR SURROUNDING MATERIALS			
SPECIAL PROCEDURES: WEAR FULL PROTECTIVE EQUIPMENT INCLUDING SELF-			
CONTAINED BREATHING APPARATUS TO PROVIDE PROTECTION AGAINST ACID			
FUMES.			
FLASH POINT (C) AND METHOD: NONE (TCC) 64.4			
HAZARDOUS COMBUSTION PRODUCTS: OXIDES OF CARBON AND PHOSPHOROUS.			
UPPER EXPLOSION LIMIT LOWER EXPLOSION LIMIT AUTOIGNITION TEMP (C)			
NOT APPLICATION NOT APPLICABLE NONE			
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:			
INCOMPATIBILITY TO OTHER SUBSTANCES: YES			
IF SO, WHICH ONES: STRONG OXIDIZING AGENTS, ALKALIS, REACTIVE METALS			
FLUORINE, SULPHUR TRIOXIDE,			
REACTIVITY AND UNDER WHAT CONDITIONS: HYDROGEN GAS IS GENERATED BY			
REACTION WITH SOME METALS.			
HAZARDOUS POLYMERIZATION WILL NOT OCCUR.			
HAZARDOUS DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION WILL PRODUCE			
OXIDES OF CARBON NAD HYDROGEN.			

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-CONTACT WITH LIQUID OR MISTS MAY CAUSE SEVERE EYE IRRITATION,
OR SEVERE EYE DAMAGE,
SKIN-MAY CAUSE SEVERE IRRITATION, BURNS IF NOT WASHED OFF
IMMEDIATELY.
INHALATION-VAPOUR OR MIST MAY CAUSE IRRITATION OF NOSE AND THROAT.
INGESTION-MAY CAUSE BURNS TO MOUTH AND THROAT, PAIN IN STOMACH,
DIFFICULTY IN BREATHING, NAUSEA, VOMITING, DIARRHEA AND CONVULSIONS.
IN VERY SEVERE CASES, COLLAPSE AND DEATH.

EFFECTS OF CHRONIC EXPOSURE TO MATERIAL:
EYES-REPEATED OR PROLONGED CONTACT WITH MISTS MAY PRODUCE CHRONIC
EYE IRRITATION.
INHALATION-REPEATED OR PROLONGED EXPOSURE TO SPRAY MIST MAY PRODUCE
RESPIRATORY TRACT IRRITATION LEADING TO FREQUENT ATTACKS OF
BRONCHIAL INFECTION.

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:
NONE KNOWN

SECTION VII - PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

GLOVES: BUTYL RUBBER, NITRILE, PVC, NEOPRENE
RESPIRATORY: APPROVED ACID MIST REPIRATOR IF MIST OR VAPOUR IS
GENERATED
EYE: CHEMICAL GOGGLES. SAFETY SHIELD RECOMMENDED IF
SPLASHING CAN OCCUR.
FOOTWEAR: IMPERMEABLE
CLOTHING: IMPERMEABLE
OTHER: EYE WASH AND SAFETY SHOWER
ENGINEERING CONTROLS (EG VENTILATION, ENCLOSED PROCESS): LOCAL
EXHAUST AS NECESSARY TO MAINTAIN TLV WITHIN ACCEPTABLE LIMITS.

LEAK AND SPILL PROCEDURE: WEAR RECOMMENDED PROTECTIVE EQUIPMENT.
CONTAIN SPILL. KEEP OUT OF WATERWAYS. TRANSFER TO SUITABLE CONTAINER
FOR REUSE OR DISPOSAL. NEUTRALIZE RESIDUE WITH DILUTE SOLUTION OF
SODIUM CARBONATE OR LIMESTONE. ABSORB ONTO SUITABLE ABSORBENT AND
PLACE IN CONTAINER FOR DISPOSAL.

WASTE DISPOSAL: DISPOSE 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 20 MINUTES
WHILE HOLDING EYELIDS OPEN. GET IMMEDIATE MEDICAL ATTENTION.
SKIN-REMOVE CONTAMINATED CLOTHING AND FLUSH AFFECTED AREA WITH
RUNNING WATER FOR AT LEAST 20 MINUTES. IF IRRITATION PERSISTS, GET
MEDICAL ATTENTION. LAUNDER CLOTHING BEFORE REUSE.
INHALATION-REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GIVE
OXYGEN. IF NOT BREATHING, ADMINISTER ARTIFICIAL RESPIRATION AND THEN
GIVE OXYGEN. GET MEDICAL ATTENTION.
INGESTION-IF SWALLOWED, DO NOT INDUCE VOMITING. RINSE MOUTH WITH
WATER. GIVE 2 GLASSES OF WATER TO DRINK. IF VOMITING OCCURS GIVE
FLUIDS AGAIN. 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	PACKING GROUP
CORROSIVE LIQUIDS N.O.S.	8	1760	III
(LACTIC ACID)			

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

STORAGE REQUIREMENTS: STORE IN A COOL, DRY 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
0	2	1

SECTION XI - PREPARATION DATE OF MSDS

PREPARED BY: TECHNICAL DEPARTMENT TELEPHONE # (905) 456-9444
REVISED: OCTOBER 4, 2009

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