



# 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, E

MATERIAL REFERENCE NO: 149000

## SECTION I - MATERIAL IDENTIFICATION AND USE

MATERIAL NAME/I.D.: K-829
CHEMICAL NAME: HYDROCHLORIC ACID   CHEMICAL FAMILY: INORGANIC ACIDS
CHEMICAL FORMULA: MIXTURE   MOLECULAR WEIGHT: NOT APPLICABLE
SYNONYMS: NONE
MATERIAL USE: MORTAR TOOL RENOVATOR

## SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS INGREDIENTS	APPROX. % CONCENT.	TLV PPM	C.A.S. NUMBERS	LD 50 ORAL, RAT
HYDROCHLORIC ACID	10.0-30.0	5	7647-01-0	900-1300 MG/KG (RBT)

## SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: FUMING LIQUID		
ODOUR AND APPEARANCE: CLEAR DARK RED LIQUID; SHARP IRRITATING ODOUR.		
ODOUR THRESHOLD (PPM)	SPECIFIC GRAVITY	VAPOUR PRESSURE (MM HG)
5	1.16	NOT AVAILABLE
VAPOUR DENSITY (AIR=1)	EVAPORATION RATE	SOLUBILITY IN WATER
NOT AVAILABLE	(WATER = 1) 1	(20 ° C) MISCIBLE
BOILING POINT (C)	FREEZING POINT (C)	% VOLATILE (BY WEIGHT)
99	NOT AVAILABLE	98
pH (1.0% SOLUTION)	DENSITY (G/ML)	COEF.OF WATER/OIL DISTR
2.5	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: USE AGENTS SUITABLE FOR SURROUNDING FIRE.			
SPECIAL PROCEDURES: PROTECT FIREFIGHTERS AGAINST CORROSIVE FUMES			
AND LIQUID IF RELEASED.			
FLASH POINT (C) AND METHOD: NONE			
HAZARDOUS COMBUSTION PRODUCTS: REACTS WITH SOME METALS TO PRODUCE			
HYDROGEN GAS WHICH MAY FORM EXPLOSIVE MIXTURES WITH AIR. WHEN HEATED			
HYDROGEN CHLORIDE IS RELEASED WHICH IS CORROSIVE AND IRRITATING.			
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: NORMALLY STABLE			
IF NO, UNDER WHICH CONDITIONS: HYDROCHLORIC ACID LOSES HYDROGEN			
CHLORIDE GAS WHEN HEATED.			
INCOMPATIBILITY TO OTHER SUBSTANCES: YES			
IF SO, WHICH ONES: STRONG OXIDIZERS, MINERAL ACIDS, STRONG BASES,			
AMINES, REDUCING AGENTS, MOST METALS.			
REACTIVITY AND UNDER WHAT CONDITIONS: CONTACT WITH SOME METALS MAY			
GENERATE FLAMMABLE HYDROGEN GAS WHICH MAY BE A LATENT EXPLOSION OR			
FIRE HAZARD. REACTS WITH ALKALIES TO LIBERATE HEAT.			
HAZARDOUS DECOMPOSITION PRODUCTS: MAY EVOLVE HYDROGEN CHLORIDE GAS			
AND CHLORINE AT HIGH TEMPERATURES.			

## 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:  
EYE CONTACT-EXTREMELY CORROSIVE. CAN CAUSE CORNEAL SCARRING AND  
CLOUDING, GLAUCOMA, CATARACTS AND PERMANENT EYE INJURY.  
SKIN CONTACT-CORROSIVE. CAN CAUSE SEVERE IRRITATION, BURNS. EFFECTS  
MAY BE DELAYED.  
INHALATION-COUGHING, CHOKING. INFLAMMATION AND ULCERATION OF THE  
RESPIRATORY TRACT MAY OCCUR.  
INGESTION-CORROSIVE. CAN CAUSE SEVERE BURNING AND PAIN IN MOUTH,  
THROAT AND ABDOMEN; VOMITING, DIARRHEA, PERFORATION OF ESOPHAGUS AND  
STOMACH LINING.

EFFECTS OF CHRONIC EXPOSURE TO MATERIAL:  
SKIN-PROLONGED OR REPEATED EXPOSURES CAN CAUSE PAIN, DRYING AND  
CRACKING OF SKIN.  
INHALATION-REPEATED OR PROLONGED EXPOSURE MAY CAUSE BRONCHOPNEUMONIA  
PILMONARY OEDEMA (FLUID BUILD-UP IN LUNGS).

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

SENSITIZATION OF MATERIAL	SYNERGISTIC MATERIALS
NOT AVAILABLE	NOT AVAILABLE

CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY:  
MUTAGENIC EFFECTS HAVE BEEN OBSERVED IN ONR BACTERIAL TEST, 3 INSECT  
TESTS AND ONE IN VITRO MAMMALIAN CELL TEST FOR HYDROCHLORIC ACID.

## SECTION VII - PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

GLOVES: NEOPRENE, NATURAL RUBBER, BUTYL RUBBER, NITRILE RUBBER  
RESPIRATORY: NONE FOR NORMAL USE. CANISTER TYPE SUITABLE FOR HCL AT  
IRRITATING EXPOSURE LEVELS.  
EYE: CHEMICAL GOGGLES AND FACE SHIELD  
FOOTWEAR: IMPERMEABLE  
CLOTHING: IMPERMEABLE. COVER EXPOSED TISSUE  
OTHER: EYE WASH AND SAFETY SHOWER.  
ENGINEERING CONTROLS (EG VENTILATION, ENCLOSED PROCESS): ADEQUATE  
VENTILATION TO MAINTAIN TLV BELOW 5PPM.

LEAK AND SPILL PROCEDURE: WEAR RECOMMENDED PROTECTIVE EQUIPMENT.  
CONTAIN SPILL. TRANSFER TO SUITABLE CONTAINER FOR RECLAIM OR  
DISPOSAL. NEUTRALIZE RESIDUE WITH SODA ASH OR SODIUM CARBONATE.  
ABSORB ONTO INERT ABSORBANT AND SCOOP INTO CONTAINER FOR DISPOSAL.  
FLUSH AREA WITH VOLUMES OF WATER.

WASTE DISPOSAL: DISPOSE ACCORDING TO LOCAL, PROVINCIAL AND FEDERAL  
REGULATIONS.



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## SECTION VIII - FIRST AID MEASURES

PROCEDURES:  
EYES-HOLD EYELIDS OPEN AND IMMEDIATELY FLUSH WITH RUNNING WATER FOR  
AT LEAST 30 MINUTES. GET IMMEDIATE MEDICAL ATTENTION AFTER FLUSHING.  
SKIN-REMOVE CONTAMINATED CLOTHING IMMEDIATELY AND FLUSH WITH CLEAN  
WATER FOR AT LEAST 30 MINUTES. GET PROMPT MEDICAL ATTENTION.  
INHALATION-REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL  
RESPIRATION. GIVE OXYGEN IF BREATHING IS DIFFICULT. GET IMMEDIATE  
MEDICAL ATTENTION.  
INGESTION-DO NOT INDUCE VOMITING. RINSE MOUTH WITH WATER. GIVE 1 TO  
2 GLASSES OF MILK OR WATER. DO NOT GIVE FLUIDS IF PERSON IS  
UNCONSCIOUS OR CONVULSING. 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.	PG
CORROSIVE LIQUIDS, N.O.S. (HYDROCHLORIC ACID)	8	1760	II

HANDLING PROCEDURES AND EQUIPMENT: PROTECT AGAINST CONTACT WITH EYES  
SKIN OR CLOTHING. HANDLE AND USE IN WELL-VENTILATED AREAS. WASH  
THOROUGHLY AFTER HANDLING.  
STORAGE REQUIREMENTS: STORE IN ORIGINAL CONTAINER AWAY FROM  
INCOMPATIBLE MATERIALS, DIRECT SUNLIGHT OR SOURCES OF HEAT. KEEP  
CONTAINER CLOSED WHEN NOT IN USE.  
SPECIAL SHIPPING INFORMATION: HEATED; 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: OCTOBER 4, 2009

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