



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, D2B, E

MATERIAL REFERENCE NO: 270300

SECTION I - MATERIAL IDENTIFICATION AND USE

MATERIAL NAME/I.D.: SLIP-X	
CHEMICAL NAME: NOT APPLICABLE	CHEMICAL FAMILY: ACIDIC BLEND
CHEMICAL FORMULA: MIXTURE	MOLECULAR WEIGHT: MIXTURE
SYNONYMS: NONE	
MATERIAL USE: TILE SLIP RESISTANCE TREATMENT	

SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS INGREDIENTS	APPROX. CONCENT.	TLV PPM	C.A.S. NUMBERS	LD 50 RAT, ORAL
PHOSPHORIC ACID	5.0-10.0	1 MG/M3	7664-38-2	1530 MG/KG
HYDROFLUORIC ACID	1.0-5.0	3	7664-39-3	456-1774 MG/KG
BUTYL CELLOSOLVE	1.0-5.0	25	111-76-2	1480 MG/KG
NONYL PHENOL ETHOXYLATE	1.0-5.0	NOT AVAILABLE	9016-45-9	1310 MG/KG

SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: LIQUID		
ODOUR AND APPEARANCE: CLEAR, PALE STRAW LIQUID, BUTYL CELLOSOLVE ODOUR.		
ODOUR THRESHOLD (PPM) APPROXIMATELY 60	SPECIFIC GRAVITY 1.140	VAPOUR PRESSURE (MM) NOT AVAILABLE
VAPOUR DENSITY (AIR=1) NOT AVAILABLE	EVAPORATION RATE (WATER=1) LESS THAN 1	SOLUBILITY IN WATER (20 ° C) COMPLETE
BOILING POINT (C) MINIMUM 100	FREEZING POINT (C) NOT AVAILABLE	% VOLATILE (BY WEIGHT) 88
pH (1.0% SOLUTION) 2.6	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: 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: MINIMUM 100 (TCC)			
HAZARDOUS COMBUSTION PRODUCTS: MAY EVOLVE PHOSPHORIC OXIDE AND			
HYDROGEN FLUORIDE, CARBON DIOXIDE, CARBON MONOXIDE.			
UPPER EXPLOSION LIMIT LOWER EXPLOSION LIMIT AUTOIGNITION TEMP(C)			
NOT AVAILABLE NOT AVAILABLE NOT AVAILABLE			
EXPLOSION DATA SENSITIVITY RATE OF BURNING EXPLOSIVE POWER			
TO CHEMICAL IMPACT			
NOT AVAILABLE NOT AVAILABLE NOT AVAILABLE			
SENSITIVITY TO STATIC DISCHARGE: NOT AVAILABLE			

SECTION V - REACTIVITY DATA

CHEMICAL STABILITY: NORMALLY STABLE.			
IF NO, UNDER WHICH CONDITIONS: HIGH TEMPERATURES.			
HAZARDOUS POLYMERIZATION WILL NOT OCCUR.			
INCOMPATIBILITY TO OTHER SUBSTANCES: YES			
IF SO, WHICH ONES: OXIDIZING AGENTS, REDUCING AGENTS, COMBUSTIBLE			
MATERIALS, ORGANIC MATERIALS, ACIDS, ALKALIES, GLASS.			
REACTIVITY AND UNDER WHAT CONDITIONS: REACTS WITH GLASS, CONCRETE,			
SILICONE BEARING MATERIALS TO GIVE OFF SILICON TETRAFLUORIDE GAS			
PRESSURE MAY BUILD UP AND BURST CONTAINER. GIVES OFF TOXIC GASES IN			
CONTACT WITH CARBONATES, SULFIDES AND CYANIDES. GIVES OFF HYDROGEN			
GAS IN CONTACT WITH METALS. CORROSIVE TO METALS, LEATHER, RUBBER.			
HAZARDOUS DECOMPOSITION PRODUCTS: SILICON TETRAFLUORIDE GAS,			
PHOSPHORUS OXIDE, HYDROGEN FLUORIDE GAS.			

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 CAN CAUSE CORNEAL BURNS, CONJUNCTIVITIS, REDNESS.
SKIN-LIQUID AND VAPOUR CAN CAUSE SEVERE BURNS WHICH MAY NOT BE IMMEDIATELY PAINFUL OR VISIBLE. HYDROFLUORIC ACID WILL PENETRATE SKIN AND ATTACK TISSUES AND BONE. LARGE BURNS(>25 SQUARE INCHES) MAY CAUSE HYPOCALCEMIA.
INHALATION-CAN IRRITATE NOSE, THROAT AND RESPIRATORY SYSTEM. SEVERE ESPOSURE CAN CAUSE NOSE AND THROAT BURNS, LUNG INFLAMMATION, PULMONARY EDEMA. SEVERE CONTACT IF NOT PROMPTLY TREATED CAN DEplete CLACIUM LEVELS RESULTING IN DEATH DUE TO HYPOCALCEMIA.

EFFECTS OF CHRONIC EXPOSURE TO MATERIAL:
EYES-ULCERATION OF EYES, OPAQUENESS OF CORNEA, LOSS OF SIGHT.
SKIN-PROLONGED OR REPEATED EXPOSURES MAY CAUSE DERMATITIS. CAN RESULT IN BONE AND JOINT CHANGES (FLUOROSIS)
INHALATION-MAY CAUSE IRRITATION OF NOSE AND THROAT, CHEMICAL BRONCHITIS.
INGESTION-MAY CAUSE RISK OF STOMACH PERFORATION, STATE OF SHOCK, UNCONSCIOUSNESS, COMA, DEATH.

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
HYDROGEN FLUORIDE IS EMBRYOTOXIC IN RATS AT 0.47-4.98 MG/M3/4HR.
CONTAINS BUTYL CELLOSOLVE-A HEMOLITIC AGENT CHARACTERIZED BY A REDUCTION IN RED BLOOD CELLS AND BLOOD IN THE URINE.

SECTION VII - PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

GLOVES: ACID RESISTANT GAUNTLET GLOVES
RESPIRATORY: NOT NORMALLY REQUIRED.
EYE: FACE SHIELD OR SAFETY GOGGLES (PLASTIC)
FOOTWEAR: ACID RESISTANT BOOTS
CLOTHING: ACID RESISTANT JACKET, TROUSERS
OTHER: EYE WASH AND SAFETY SHOWER.
ENGINEERING CONTROLS (EG VENTILATION, ENCLOSED PROCESS): LOCAL EXHAUST AS NEEDED TO STAY BELOW TLV.

LEAK AND SPILL PROCEDURE: WEAR FULL PROTECTIVE EQUIPMENT. RECLAIM IF POSSIBLE OR DILUTE SPILL WITH LARGE AMOUNTS OF WATER THEN NEUTRALIZE WITH SODA ASH OR LIME. PROVIDE GOOD VENTILATION. FLUSH IN ACCORDANCE WITH APPLICABLE DISPOSAL REGULATIONS. KEEP OUT OF SEWERS.

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



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SECTION VIII - FIRST AID MEASURES

PROCEDURES: "GET IMMEDIATE MEDICAL ATTENTION FOR ALL EXPOSURES".
!!! REFERENCE SECTION X1 FOR ADDITION IMPORTANT INFORMATION!!!
EYES-IMMEDIATELY FLUSH WITH RUNNING WATER FOR 15 MIN. APPLY 2 DROPS
OF 0.5% PONTCAINE HYDROCHLORIDE AND RINSE AGAIN.
SKIN-REMOVE CONTAMINATED CLOTHING IMMEDIATELY AND FLUSH AFFECTED
AREA WITH WATER FOR 15 MIN. MAKE IMMEDIATE ARANGEMENTS FOR MEDICAL
ATTENTION. TREAT WITH STERILE 10% AQUEOUS CALCIUM GLUCONATE.
INHALATION-MOVE VICTIM TO FRESH AIR. GIVE OXYGEN IF BREATHING IS
DIFFICULT. IF NOT BREATHING, ADMINISTER ARTIFICIAL RESPIRATION THEN
GIVE OXYGEN. KEEP PERSON AT REST FOR AT LEAST 24 HOURS.
INGESTION-DO NOT INDUCE VOMITING. GIVE COLD WATER OR ICE TO RINSE
MOUTH. GIVE LARGE AMOUNTS OF WATER, MILK OR MILK OF MAGNESIA. IF
VOMITING OCCURS, GIVE FLUIDS AGAIN.

SOURCES USED: RAW MATERIAL SUPPLIERS' MATERIAL SAFETY DATA SHEETS.

ADDITIONAL INFORMATION: NONE

SECTION IX - TDG SHIPPING INFORMATION

SHIPPING NAME	CLASS	UN NO.	PACKING GROUP
CORROSIVE LIQUIDS, TOXIC, N.O.S. (PHOSPHORIC/HYDROFLUORIC ACID)	8 (6.1)	2922	1

HANDLING PROCEDURES AND EQUIPMENT: CAUTION-AVOID CONTACT WITH EYES,
SKIN AND CLOTHING. AVOID BREATHING VAPOURS. USE ADEQUATE VENTILATION
WASH THOROUGHLY AFTER HANDLING.

STORAGE REQUIREMENTS: STORE IN TIGHTLY SEALED, APPROVED CONTAINERS
IN A COOL, DRY, VENTILATED AREA. KEEP AWAY FROM INCOMPATIBLE
MATERIALS.

SPECIAL SHIPPING INFORMATION: CORROSIVE/POISONOUS MATERIAL.

SECTION X - HMIS HAZARD RATING INFORMATION

FLAMMABILITY	REACTIVITY	HEALTH
0	1	3

SECTION X1 - ADDITIONAL HAZARD INFORMATION

THIS SECTION GIVES ADDITIONAL INFORMATION ON FIRST AID TREATMENT FOR
HYDROFLUORIC ACID EXPOSURES.

INTRODUCTION:

HYDROFLUORIC ACID BURNS CAN BE EXTREMELY DANGEROUS, EVEN IF ONLY
SMALL AREAS OF THE SKIN ARE AFFECTED. SEVERITY OF THE BURN DEPENDS
ON THE STRENGTH OF THE ACID, THE SURFACE AREA INVOLVED AND THE
PROMPTNESS OF THE TREATMENT APPLIED.



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SECTION X1 (CONTINUED)

SKIN BURNS

- PERSONNEL ASSISTING IN THE TREATMENT SHOULD WEAR RUBBER GLOVES TO AVOID CONTAMINATION.
- REMOVE ALL CONTAMINATED CLOTHING.
- FLUSH AFFECTED AREA THOROUGHLY WITH WATER FOR 15 TO 30 MINUTES.
- APPLY CALCIUM GLUCONATE 2.5% GEL TO THE AFFECTED AREA
- APPLY AN OCCLUSIVE DRESSING TO THE GEL COVERED AREA
 - A) IF THE AREA AFFECTED IS ON THE HAND, THEN PLACE THE GEL IN A SLIGHTLY OVERSIZED GLOVE AND PLACE THE GLOVE ON THE HAND. THE GEL CAN THEN BE MASSAGED AROUND THE AFFECTED AREA.
 - B) IF THE AREA AFFECTED IS OTHER THAN ON THE HAND, THEN A CELLOPHANE WRAP MAY BE USED TO DRESS THE AREA.
- THE DRESSING MAY BE CHANGED AT 4 HOURS AND AGAIN AT 8 HOURS OR, AS DIRECTED BY A PHYSICIAN.

EYE BURNS

- WASH EYES IMMEDIATELY AND THOROUGHLY WITH WATER FOR 15 - 20 MINUTES.
- CONTINUE WASHING OR APPLY AN ICE PACK WHILE IN TRANSPORT TO HOSPITAL.

OTHER:

- SEEK FURTHER MEDICAL ASSESSMENT AND TREATMENT. IF POSSIBLE, NOTIFY THE HOSPITAL EMERGENCY DEPARTMENT OF THE INCOMING INJURY.

SECTION XII - PREPARATION DATE OF MSDS

PREPARED BY: TECHNICAL DEPARTMENT TELEPHONE # (905) 456-9444
REVIEWED: JUNE 25, 2003

DISCLAIMER:

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