



# 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: B6, C, D2B, E

MATERIAL REFERENCE NO: 144800

## SECTION I - MATERIAL IDENTIFICATION AND USE

MATERIAL NAME/I.D.: H.R. 230	
CHEMICAL NAME: NOT APPLICABLE	CHEMICAL FAMILY: ALKALINE BLEND
CHEMICAL FORMULA: MIXTURE	MOLECULAR WEIGHT: NOT APPLICABLE
SYNONYMS: NONE	
MATERIAL USE: SEWER SOLVENT	

## SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS   INGREDIENTS	APPROX.   % CONCENT.	TLV   MG/M3	C.A.S.   NUMBERS	LD 50   ORAL, RAT
SODIUM HYDROXIDE	30.0-60.0	2	1310-73-2	500 MG/KG
				(RABBIT)
SODIUM NITRATE	10.0-30.0	10	7631-99-4	1267 MG/KG
ALUMINUM	5.0-10.0	10	7429-90-5	NO DATA
ZINC CHLORIDE	3.0-7.0	1	7646-85-7	350 MG/KG

## SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: SOLID	
ODOUR AND APPEARANCE: RED, COARSE POWDER; ODOURLESS	
ODOUR THRESHOLD (PPM)	SPECIFIC GRAVITY
NOT ESTABLISHED	2.2
VAPOUR PRESSURE (MM)	
NOT AVAILABLE	NOT AVAILABLE
VAPOUR DENSITY (AIR=1)	EVAPORATION RATE
NOT AVAILABLE	NOT APPLICABLE
SOLUBILITY IN WATER	
(20 ° C) PARTIAL	
BOILING POINT (C)	FREEZING POINT (C)
NOT APPLICABLE	NOT APPLICABLE
% VOLATILE (BY WEIGHT)	
< 5	
pH (1.0% SOLUTION)	DENSITY (G/ML)
12.5-13.5	NOT APPLICABLE
COEF.OF WATER/OIL DISTR	
NOT AVAILABLE	



# MATERIAL SAFETY DATA SHEET

MATERIAL REFERENCE NO: 144800

## SECTION IV - FIRE AND EXPLOSION HAZARD OF MATERIAL

FLAMMABILITY: NON-FLAMMABLE			
IF YES, UNDER WHICH CONDITIONS:			
MEANS OF EXTINCTION: AVOID CONTACT WITH WATER. PRODUCT CAN REACT			
VIOLENTLY IN PRESENCE OF WATER. WILL CREATE SIGNIFICANT HEAT AND			
MAY CAUSE SPLATTERING.			
SPECIAL PROCEDURES: WEAR FULL PROTECTIVE EQUIPMENT INCLUDING SELF-			
CONTAINED BREATHING APPARATUS.			
FLASH POINT (C) AND METHOD: NONE (TCC)			
HAZARDOUS COMBUSTION PRODUCTS: OXIDES OF NITROGEN, ALUMINUM, ZINC,			
CHLORIDE FUMES, HYDROGEN CHLORIDE GAS, CAUSTIC FUMES.			
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 APPLICABLE	NOT AVAILABLE	
SENSITIVITY TO STATIC DISCHARGE: NOT APPLICABLE			

## SECTION V - REACTIVITY DATA

CHEMICAL STABILITY: NORMALLY STABLE			
IF NO, UNDER WHICH CONDITIONS: HIGH HUMIDITY.			
INCOMPATIBILITY TO OTHER SUBSTANCES: YES			
IF SO, WHICH ONES: REDUCING AGENTS, ACIDS, LEATHER, WOOL, ORGANIC			
HALOGEN COMPOUNDS, ORGANIC NITRO COMPOUNDS.			
REACTIVITY AND UNDER WHAT CONDITIONS: WILL REACT WITH SOME METALS			
TO RELEASE FLAMMABLE HYDROGEN GAS. WILL ALSO REACT VIOLENTLY WITH			
ACIDS AND SOME ORGANIC COMPOUNDS. ADDITION OF WATER COULD PRODUCE			
BOILING CAUSTIC AND HIGH HEAT.			
HAZARDOUS DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION WILL YIELD			
OXIDES OF NITROGEN, ALUMINUM, ZINC, CHLORIDE FUMES, HYDROGEN			
CHLORIDE GAS, CAUSTIC FUMES.			

## SECTION VI - HEALTH HAZARD DATA

ROUTE OF ENTRY:			
SKIN CONTACT: YES	SKIN ABSORPTION: YES	EYE CONTACT: YES	
INHALATION: YES	INGESTION: YES		



# MATERIAL SAFETY DATA SHEET

MATERIAL REFERENCE NO: 144800

-----  
| EFFECTS OF ACUTE EXPOSURE TO MATERIAL: |  
| EYE CONTACT-CORROSIVE. WILL CAUSE BURNS, PERMANENT EYE DAMAGE. DUST |  
| MAY CAUSE STINGING, WATERING, CONJUNCTIVITIS, BURNS AND IRREPARABLE |  
| DAMAGE OF MUCOUS MEMBRANES. |  
| SKIN CONTACT-CAN CAUSE SEVERE BURNS, DEEP ULCERATIONS WITH SCARRING, |  
| ITCHING, INFLAMMATION. PROLONGED CONTACT WILL DESTROY TISSUE. MAY |  
| CAUSE DERMATITIS. |  
| INHALATION-EXCESSIVE BREATHING OF DUST CAN CAUSE SEVERE IRRITATION |  
| OR BURNS TO UPPER RESPIRATORY TRACT. |  
| INGESTION-CAN CAUSES BURNS TO GASTROINTESTINAL TRACT. MAY CAUSE |  
| SEVERE IRRITATION OF GASTROINTESTINAL TRACT, NAUSEA, VOMITING, |  
DIFFICULTY IN BREATHING.

-----  
| EFFECTS OF CHRONIC EXPOSURE TO MATERIAL: |  
| EYES-OVEREXPOSURE COULD RESULT IN ULCERATION, LOSS OF SIGHT. |  
| INGESTION-OVEREXPOSURE COULD RESULT IN RISK OF STOMACH PERFORATION, |  
| SHOCK, UNCONSCIOUSNESS. |  
| INHALATION-EXCESSIVE INHALATION COULD CAUSE CHEMICAL BRONCHITIS, |  
ASPHYXIA.

-----  
| 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: |  
NONE KNOWN

## SECTION VII - PREVENTIVE MEASURES

-----  
PERSONAL PROTECTIVE EQUIPMENT:

| GLOVES: RUBBER, NITRILE, NEOPRENE |  
| RESPIRATORY: APPROPRIATE NIOSH APPROVED RESPIRATOR |  
| EYE: FACE SHIELD OR CHEMICAL GOGGLES |  
| FOOTWEAR: RUBBER |  
| CLOTHING: IMPERMEABLE. COVER EXPOSED SKIN |  
| OTHER: EYE WASH AND SAFETY SHOWER |  
| ENGINEERING CONTROLS (EG VENTILATION, ENCLOSED PROCESS): LOCAL |  
| VENTILATION AS NEEDED TO MAINTAIN EXPOSURE LEVELS DO NOT EXCEED |  
RECOMMENDED LIMITS.

| LEAK AND SPILL PROCEDURE: WEAR RECOMMENDED PROTECTIVE EQUIPMENT. |  
| CAREFULLY SWEEP UP AND PLACE IN SUITABLE CONTAINER FOR REUSE OR |  
| DISPOSAL. FLUSH RESIDUAL WITH LARGE VOLUMES OF WATER. |  

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



# MATERIAL SAFETY DATA SHEET

MATERIAL REFERENCE NO: 144800

## SECTION VIII - FIRST AID MEASURES

-----  
| PROCEDURES: |  
| EYES-FLUSH IMMEDIATELY FLUSH WITH RUNNING WATER FOR AT LEAST 15 |  
| MINUTES WHILE HOLDING EYELIDS OPEN. GET IMMEDIATE MEDICAL ATTENTION. |  
| SKIN-REMOVE CONTAMINATED CLOTHING IMMEDIATELY AND FLUSH AFFECTED |  
| AREA WITH RUNNING WATER FOR AT LEAST 15 MINUTES. GET MEDICAL |  
| ATTENTION IMMEDIATELY. LAUNDER CLOTHING BEFORE REUSE. |  
| INHALATION-MOVE VICTIM TO FRESH AIR. IF BREATHING IS DIFFICULT, |  
| ADMINISTER OXYGEN. IF NOT BREATHING, ADMINISTER ARTIFICIAL |  
| RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION. |  
| INGESTION-GET IMMEDIATE MEDICAL ATTENTION. DO NOT INDUCE VOMITING. |  
NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON.
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 SOLID, OXIDIZING, N.O.S.	8 (5.1)	3084	I
(SODIUM HYDROXIDE)			
-----  
| HANDLING PROCEDURES AND EQUIPMENT: WEAR RECOMMENDED PROTECTIVE |  
| EQUIPMENT. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. AVOID |  
BREATHING DUST. WASH THOROUGHLY AFTER HANDLING.
STORAGE REQUIREMENTS: KEEP PRODUCT DRY IN STORAGE. PRODUCT SHOULD BE
STORED IN TIGHTLY SEALED CONTAINERS IN A COOL, DRY AREA.
(WILL ABSORB MOISTURE FROM THE AIR)
-----  
SPECIAL SHIPPING INFORMATION: SEGREGATE FROM ACIDIC PRODUCTS

## 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 |  
| REVISED: OCTOBER 4, 2009 | REPLACES: JANUARY 4, 2006 |  
-----

### DISCLAIMER:

THE INFORMATION CONTAINED HEREIN IS COMPILED FROM SOURCES BELIEVED TO BE RELIABLE. THE MANNER AND CONDITIONS OF USE AND HANDLING MAY INVOLVE OTHER AND ADDITIONAL CONSIDERATIONS. WE ACCEPT NO RESPONSIBILITY FOR THE ACCURACY, SUFFICIENCY, RELIABILITY OR FOR ANY LOSS OR INJURY RESULTING FROM THE USE OF THE INFORMATION