



# 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: E

MATERIAL REFERENCE NO: 741000

## SECTION I - MATERIAL IDENTIFICATION AND USE

MATERIAL NAME/I.D.: KEMTREET 410	
CHEMICAL NAME: SODIUM HYDROXIDE	CHEMICAL FAMILY: ALKALIES
CHEMICAL FORMULA: NaOH	MOLECULAR WEIGHT: NOT APPLICABLE
SYNONYMS: SODA LYE; LYE; CAUSTIC SODA SOLUTION	
MATERIAL USE: LIQUID pH ADJUSTER	

## SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS   INGREDIENTS	APPROX.   % CONCENT.	TLV   MG/M3	C.A.S.   NUMBERS	LDLo ORAL   RABBIT
SODIUM HYDROXIDE	40.0-70.0	2	1310-73-2	500 MG/KG

## SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: LIQUID			
ODOUR AND APPEARANCE: CLEAR TO SLIGHTLY TURBID, ODOURLESS LIQUID			
ODOUR THRESHOLD (PPM)	SPECIFIC GRAVITY	VAPOUR PRESSURE	
NOT AVAILABLE	1.33 - 1.53	1.5mm Hg AT (20)	
VAPOUR DENSITY (AIR=1)	EVAPORATION RATE	SOLUBILITY IN WATER	
NOT AVAILABLR	NOT AVAILABLE	(20 C) MISCIBLE	
BOILING POINT (C)	FREEZING POINT (C)	% VOLATILE (BY WEIGHT)	
115-140	1-12	APPROX. 50	
pH (1.0% SOLUTION)	DENSITY (G/ML)	COEF.OF WATER/OIL DISTR	
12.5-13.5	NOT AVAILABLE	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: AS FOR SURROUNDING MATERIALS			
SPECIAL PROCEDURES: WEAR FULL PROTECTIVE EQUIPMENT INCLUDING SELF-			
CONTAINED BREATHING APPARATUS.			
NOTE: DO NOT USE CO2. THIS WILL REACT EXOTHERMICALLY WITH SODIUM			
HYDROXIDE.			
FLASH POINT (C) AND METHOD: NONE			
HAZARDOUS COMBUSTION PRODUCTS: OXIDES OF SODIUM.			
UPPER EXPLOSION LIMIT			
NONE			
LOWER EXPLOSION LIMIT			
NONE			
AUTOIGNITION TEMP (C)			
NOT APPLICABLE			
EXPLOSION DATA SENSITIVITY			
TO CHEMICAL IMPACT			
NOT AVAILABLE			
RATE OF BURNING			
NOT AVAILABLE			
EXPLOSIVE POWER			
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: ACIDS, ACID ANHYDRIDES, OXIDIZABLE MATERIALS.			
REACTIVITY AND UNDER WHAT CONDITIONS: CONTACT WITH ACIDS WILL CAUSE			
VIOLENT REACTION. CONTACT WITH METALS SUCH AS ALUMINUM, TIN AND ZINC			
CAUSES FORMATION OF FLAMMABLE HYDROGEN GAS. ALSO REACTS WITH BRONZE			
AND BRASS. GENERATES HEAT WHEN ADDED TO WATER.			
HAZARDOUS DECOMPOSITION PRODUCTS: NONE			

## 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-EXTREMELY CORROSIVE. CAUSES CORNEAL SCARRING AND CLOUDING. |  
|GLAUCOMA, CATARACTS AND PERMANENT BLINDNESS MAY OCCUR. DAMAGE MAY |  
|BE DELAYED AND NOT INITIALLY APPARENT. DUST MAY IRRITATE THE EYES. |  
|SKIN-CONTACT CAN CAUSE DEEP AND SEVERE SKIN BURNS, ULCERATION AND |  
|SCARRING. PAINFUL TISSUE DAMAGE MAY RESULT AND THE SENSATION OF |  
|PAIN MAY BE DELAYED. |  
|INHALATION-MIST MAY CAUSE SEVERE IRRITATION OF THE NOSE, THROAT AND |  
|LUNGS. |  
|INGESTION-MAY CAUSE PAIN, VOMITING AND SEVERE BURNS OF MOUTH, THROAT |  
AND EXTENSIVE DAMAGE OR PERFORATION OF THE ESOPHAGUS. MAY BE FATAL.

|EFFECTS OF CHRONIC EXPOSURE TO MATERIAL: |

|LD 50 OF MATL. |LC 50 OF MATL. |EXPOSURE LIMIT(S) |IRRITANCY OF MATL |  
| NOT AVAILABLE | NOT AVAILABLE | NOT AVAILABLE |VERY CORROSIVE |  
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|SENSITIZATION OF MATERIAL | SYNERGISTIC MATERIALS |  
| NOT AVAILABLE | NOT AVAILABLE |  
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|CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY: |  
|NOT KNOWN |  
| |  

## SECTION VII - PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

| GLOVES: RUBBER, NITRILE OR PVC |  
|RESPIRATORY: NIOSH APPROVED FOR FUMES AND MISTS UP TO 20mg/m3. AIR |  
| SUPPLIED RESPIRATOR FOR HIGHER CONCENTRATIONS. |  
| EYE: CHEMICAL GOGGLES OR FACE SHIELD |  
| FOOTWEAR: RUBBER BOOTS |  
| CLOTHING: RUBBER APRON |  
| OTHER: EYE WASH AND SAFETY SHOWER |  
|ENGINEERING CONTROLS (EG VENTILATION, ENCLOSED PROCESS): PROVIDE |  
|LOCAL OR MECHANICAL VENTILATION IF AIRBORNE CONCENTRATIONS EXCEED |  
RECOMMENDED EXPOSURE LEVELS.

|LEAK AND SPILL PROCEDURE: PROTECTIVE EQUIPMENT MUST BE WORN. STOP |  
|AND CONTAIN LEAK OR SPILL. DYKE WITH INERT MATERIAL (SAND, EARTH |  
|ETC.). TRANSFER TO SUITABLE CONTAINER FOR REUSE OR DISPOSAL. ABSORB |  
|REMAINING MATERIAL ONTO INERT ABSORBENT AND SCOOP INTO DISPOSAL |  
|CONTAINER. CAREFULLY NEUTRALIZE RESIDUE WITH DILUTE HYDROCHLORIC |  
ACID AND FLUSH WITH VOLUMES OF WATER. KEEP OUT OF WATERWAYS.

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



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## SECTION VIII - FIRST AID MEASURES

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| PROCEDURES: |  
| EYES-IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 20 |  
| MINUTES. OBTAIN IMMEDIATE MEDICAL ATTENTION. |  
| SKIN-REMOVE CONTAMINATED CLOTHING. FLUSH AFFECTED AREA WITH RUNNING |  
| WATER FOR AT LEAST 20 MINUTES. OBTAIN MEDICAL ATTENTION IMMEDIATELY. |  
| INHALATION-REMOVE TO FRESH AIR. IF NOT BREATHING, ADMINISTER |  
| ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT GET IMMEDIATE |  
| MEDICAL ATTENTION. |  
| INGESTION-GIVE 2 GLASSES OF WATER. NEVER GIVE ANYTHING BY MOUTH IF |  
| PERSON IS UNCONSCIOUS OR CONVULSING DO NOT INDUCE VOMITING. OBTAIN |  
MEDICAL ATTENTION IMMEDIATELY.
SOURCES USED: RAW MATERIAL SUPPLIER'S MATERIAL SAFETY DATA SHEETS
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ADDITIONAL INFORMATION: NONE

## SECTION IX - TDG SHIPPING INFORMATION

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| SHIPPING NAME | CLASS | UN NO. | PG |  
| SODIUM HYDROXIDE SOLUTION | 8 | 1824 | II |  
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| HANDLING PROCEDURES AND EQUIPMENT: AVOID CONTACT WITH EYES, SKIN AND |  
| CLOTHING. HANDLE CAREFULLY. WASH THOROUGHLY AFTER HANDLING. ADD |  
| CAUSTIC SOLUTION TO WATER TO AVOID BOILING AND SPLATTERING. |  
SOLUTIONS ARE VERY SLIPPERY ON FLOORS.
STORAGE REQUIREMENTS: STORE BETWEEN 15-50(C). PROTECT CONTAINER FROM
DAMAGE. DO NOT STORE NEAR INCOMPATIBLE MATERIALS.
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SPECIAL SHIPPING INFORMATION: KEEP FROM FREEZING.

## SECTION X - HMIS HAZARD RATING INFORMATION

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| FLAMMABILITY | REACTIVITY | HEALTH |  
| 0 | 1 | 3 |  
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## SECTION XI - PREPARATION DATE OF MSDS

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| PREPARED BY: TECHNICAL DEPARTMENT TELEPHONE # (905) 456-9444 |  
PREPARED: MAY 22, 2009

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