



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



MATERIAL SAFETY DATA SHEET

MATERIAL REFERENCE NO: 741000

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 | LOWER EXPLOSION LIMIT | AUTOIGNITION TEMP(C)
| NONE | NONE | NOT APPLICABLE
|
|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: 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
|



MATERIAL SAFETY DATA SHEET

MATERIAL REFERENCE NO: 741000

|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 |

|SENSITIZATION OF MATERIAL | SYNERGISTIC MATERIALS
| NOT AVAILABLE | NOT AVAILABLE |

|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.



MATERIAL SAFETY DATA SHEET

MATERIAL REFERENCE NO: 741000

SECTION VIII - FIRST AID MEASURES

| 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 |

| ADDITIONAL INFORMATION: NONE |

SECTION IX - TDG SHIPPING INFORMATION

SHIPPING NAME	CLASS	UN NO.	PG
SODIUM HYDROXIDE SOLUTION	8	1824	II

| 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.

| SPECIAL SHIPPING INFORMATION: KEEP FROM FREEZING. |

SECTION X - HMIS HAZARD RATING INFORMATION

FLAMMABILITY	REACTIVITY	HEALTH
0	1	3

SECTION XI - PREPARATION DATE OF MSDS

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

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.