



KENCRO

CHEMICALS

HYDRATED LIME

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY INFORMATION

PRODUCT IDENTIFIER: CALCIUM HYDROXIDE
PRODUCT USE: WATER TREATMENT, STEEL FLUX, CAUSTIC AGENT, PH ADJUSTMENT, ACID GAS ABSORPTION, CONSTRUCTION.
CHEMICAL FAMILY: ALKALINE EARTH HYDROXIDES
SUPPLIER'S NAME AND ADDRESS: KENCRO CHEMICALS LIMITED
2172 WYECROFT RD., UNIT #4
OAKVILLE, ON
L6L 5V6
905-827-4133
24 HR. EMERGENCY NUMBER: 613-996-6666 (CANUTEC)

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	C.A.S. #	WT.%	LC50	LD50 (ORAL, RAT)	DERMAL
CALCIUM CARBONATE	1305-62-0	>85	N/AV.	7340mg/kg	N/AV.
SILICA-CRYSTALLINE QUARTZ	14808-60-7	<1	N/AV.	N/AV.	N/AV.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HYDRATE LIME IS AN ODOURLESS WHITE OR GRAYISH-WHITE GRANULAR POWDER.
CONTACT CAN CAUSE IRRITATION TO EYES, SKIN, RESPIRATORY SYSTEM AND GASTROINTESTINAL TRACT.
CONTACT MAY AGGRAVATE DISORDERS OF THE EYES, SKIN, RESPIRATORY SYSTEM AND GASTROINTESTINAL TRACT.

SIGNS AND SYMPTOMS OF SHORT-TERM EXPOSURE:

SKIN CONTACT: CAN CAUSE SEVERE IRRITATION OR BURNING OF SKIN, ESPECIALLY IN THE PRESENCE OF WATER. REMOVES NATURAL SKIN OILS, BLOTCHES, ITCHING AND SUPERFICIAL BURNS IN CASE OF SWEATING.

SKIN ABSORPTION: N/AV.

EYE CONTACT: CAN CAUSE SEVERE IRRITATION OR BURNING OF EYES, INCLUDING PERMANENT DAMAGE.

INHALATION: CAN CAUSE SEVERE IRRITATION OF THE RESPIRATORY SYSTEM, INCLUDING SORE THROAT, COUGHING, SNEEZING. LONG-TERM EXPOSURE MAY CAUSE PERMANENT DAMAGE.

INGESTION: CAN CAUSE SEVERE IRRITATION OF THE GASTROINTESTINAL TRACT IF SWALLOWED, INCLUDING SORE THROAT, STOMACH ACHES, CRAMPS, DIARRHEA AND VOMITING.

POTENTIAL CHRONIC HEALTH EFFECTS:
THIS PRODUCT MAY CONTAIN CRYSTALLINE SILICA QUARTZ, WHICH HAS BEEN CLASSIFIED BY IARC AS (GROUP 1) CARCINOGENIC TO HUMANS WHEN INHALED. INHALATION OF SILICA CAN ALSO CAUSE A CHRONIC LUNG DISORDER, SILICOSIS. PROLONGED EXPOSURE TO THE EYES MAY CAUSE BLINDNESS.

OTHER IMPORTANT HAZARDS:
CAN BE AN IRRITANT TO EYES, MUCOUS MEMBRANES, MOIST SKIN, RESPIRATORY TRACT.

SECTION 4: FIRST AID MEASURES

INHALATION: MOVE VICTIM TO FRESH AIR. SEEK MEDICAL ATTENTION IF NECESSARY. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION.

SKIN CONTACT: FLUSH EXPOSED AREA WITH LARGE AMOUNTS OF WATER. WASH AFFECTED AREA WITH PLENTY OF SOAP AND WATER. SEEK MEDICAL ATTENTION IMMEDIATELY

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. PULL BACK THE EYELID TO MAKE SURE ALL THE LIMESTONE HAS BEEN WASHED OUT. SEEK MEDICAL ATTENTION IMMEDIATELY. DO NOT RUB EYES.

INGESTION: GIVE LARGE QUANTITIES OF WATER OR FRUIT JUICE. DO NOT INDUCE VOMITING. SEEK MEDICAL ATTENTION IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH IF VICTIM IS RAPIDLY LOSING CONSCIOUSNESS OR IS UNCONSCIOUS OR CONVULSING.

SECTION 5: FIRE FIGHTING MEASURES

FIRE HAZARDS/CONDITION OF FLAMMABILITY:

THIS PRODUCT IS NOT FLAMMABLE OR COMBUSTIBLE.

FLASH POINT: NON-FLAMMABLE **AUTO IGNITION TEMPERATURE:** NON-FLAMMABLE

LOWER FLAMMABLE LIMIT: N/AP. **UPPER FLAMMABLE LIMIT:** N/AP.

(% BY VOL.)

OXIDIZING PROPERTIES: N/AV. **FLAME PROJECTION LENGTH:** N/AP.

EXPLOSION DATA: SENSITIVITY TO MECHANICAL IMPACT/STATIC DISCHARGE:

NONE BY ITSELF, BUT HEAT PRODUCED BY REACTION WITH STRONG ACIDS CAN GENERATE STEAM AND PRESSURE. THIS PRODUCT IS NOT FLAMMABLE IN DUST FORM.

SUITABLE EXTINGUISHING MEDIA:

USE DRY CHEMICAL FIRE EXTINGUISHER. DO NOT USE WATER OR HALOGENATED COMPOUNDS, EXCEPT LARGE AMOUNTS OF WATER MAY BE USED TO DELUGE SMALL QUANTITIES OF HYDRATED LIME. USE APPROPRIATE EXTINGUISHING MEDIA FOR SURROUNDING FIRE CONDITIONS.

SPECIAL FIRE-FIGHTING PROCEDURES/EQUIPMENT:

KEEP PERSONNEL AWAY FROM AND UPWIND OF FIRE. WEAR FULL FIRE-FIGHTING TURN-OUT GEAR (FULL BUNKER GEAR), AND RESPIRATORY PROTECTION (SELF-CONTAINED BREATHING APPARATUS).

HAZARDOUS COMBUSTION PRODUCTS:

DECOMPOSES TO PRODUCE CALCIUM OXIDE (CaO), WHICH CAN REACT WITH WATER TO PRODUCE STEAM AND PRESSURE.

SECTION 6: ACCIDENTAL RELEASE MEASURES

LEAK AND SPILL PROCEDURES:

USE PERSONAL PROTECTIVE EQUIPMENT (EYES, SKIN AND INHALATION, SEE SECTION 8). USE DRY METHODS (VACUUMING, SWEEPING) TO COLLECT SPILLED MATERIALS. AVOID GENERATING DUST. FOR LARGE SPILLS, EVACUATE AREA DOWNWIND OF CLEAN-UP AREA OPERATIONS TO MINIMIZE DUST EXPOSURE. FOR SMALL SPILLS, STORE SPILLED MATERIALS IN DRY SEALED PLASTIC OR METAL CONTAINERS. DUST RESIDUE ON SURFACES MAY BE WASHED WITH WATER.

SECTION 7: HANDLING AND STORAGE

SAFE HANDLING PROCEDURES:

IN OPEN AIR OR IN VENTILATED PLACES, AVOID SKIN AND EYE CONTACT, AVOID CREATING AIRBORNE DUST.

STORAGE REQUIREMENTS:

STORE IN DRY PLACES SHELTERED FROM HUMIDITY. KEEP AWAY FROM ACIDS AND INCOMPATIBLE SUBSTANCES. KEEP OUT OF REACH OF CHILDREN.

INCOMPATIBLE MATERIALS:

ACID; REACTIVE FLUORIDATED, BROMINATED OR PHOSPHOROUS COMPOUNDS; ALUMINUM, REACTIVE POWDERED METALS; ORGANIC ACID ANHYDRIDES; NITRO-ORGANIC COMPOUNDS; INTERHALOGENATED COMPOUNDS.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE LIMITS				
INGREDIENTS	ACGIH TLV		OSHA PEL	
	STEL		TOTAL	RESP.
CALCIUM HYDROXIDE	5MG/M ³		15MG/M ³	5MG/M ³
SILICA (CRYSTALLINE QUARTZ)	0.1MG/M ³		10MG/M ³	3.3MG/M ³

SEE COMPOSITION/INFORMATION ON INGREDIENTS, SECTION 2.

ENGINEERING CONTROLS:

USE VENTILATION AND DUST COLLECTION TO CONTROL EXPOSURE TO BELOW APPLICABLE LIMITS.

GLOVES/TYPE:

USE DRY CLEAN GLOVES, GAUNTLET TYPE WORK GLOVES (NEOPRENE).

RESPIRATORY/TYPE:

WEAR NIOSH N-95 DUST MASK.

EYE/TYPE:

EYE PROTECTION (CHEMICAL GOGGLES, SAFETY GOGGLES AND/OR FACE SHIELD) SHOULD BE WORN WHERE THERE IS A RISK OF LIMESTONE EXPOSURE. CONTACT LENSES SHOULD NOT BE WORN WHEN WORKING WITH LIMESTONE PRODUCTS.

CLOTHING/TYPE:

COVER BODY WITH SUITABLE CLOTHES (LONG SLEEVE SHIRTS AND TROUSERS). USE OVER THE ANKLE WATERPROOF CAUSTIC RESISTANT FOOTWEAR.

OTHER/TYPE:

AN EYEWASH STATION AND SAFETY SHOWER SHOULD BE MADE AVAILABLE IN THE IMMEDIATE WORK AREA.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	SOLID	APPEARANCE:	WHITE POWDER
ODOUR:	ODOURLESS	ODOUR THRESHOLD:	N/AP.
PH:	12.4 IN SATURATED WATER SOLUTION AT 25°C	BOILING POINT:	2850°C
DENSITY:	2.24G/CC	MELTING POINT:	580°C
SOLUBILITY IN WATER:	SLIGHTLY SOLUBLE IN WATER: 0.2% @ 0°C. SOLUBLE IN ACIDS, GLYCERIN AND SUGAR SOLUTIONS		
VAPOUR DENSITY (AIR=1):	NON VOLATILE	VAPOUR PRESSURE:	NON VOLATILE
MOLECULAR WEIGHT:	74.08		
MOLECULAR FORMULA:	Ca(OH) ₂		

SECTION 10: REACTIVITY AND STABILITY DATA**STABILITY AND REACTIVITY:**

STABLE PRODUCT, NOT VERY SOLUBLE. REACTS WITH ACIDS TO FORM CALCIUM SALTS WHILE GENERATING HEAT. REACTS WITH CARBON DIOXIDE IN AIR TO FORM CALCIUM CARBONATE.

CONDITIONS TO AVOID:

MAY REACT VIOLENTLY WITH STRONG ACIDS PRODUCING HEAT AND POSSIBLE STEAM EXPLOSION IN CONFINED SPACE. VICINITY OF INCOMPATIBLE MATERIALS.

INCOMPATIBLE MATERIALS:

ACID; REACTIVE FLUORIDATED, BROMINATED OR PHOSPHOROUS COMPOUNDS; ALUMINUM, REACTIVE POWDERED METALS; ORGANIC ACID ANHYDRIDES; NITRO-ORGANIC COMPOUNDS; INTERHALOGENATED COMPOUNDS.

HAZARDOUS DECOMPOSITION PRODUCTS:

CALCIUM OXIDE (CaO). CALCIUM OXIDE IS NON-FLAMMABLE, BUT GENERATES HEAT IN PRESENCE OF WATER AND ACIDS.

DECOMPOSITION TEMPERATURE:

580°C, FORMS CALCIUM OXIDE AND WATER.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA: SEE SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS.

CARCINOGENIC STATUS: THIS PRODUCT IS NOT LISTED BY MSHA, OSHA OR IARC AS A CARCINOGEN, BUT THIS PRODUCT MAY CONTAIN CRYSTALLINE SILICA QUARTZ, WHICH HAS BEEN CLASSIFIED BY IARC AS (GROUP 1) CARCINOGENIC TO HUMANS WHEN INHALED.

REPRODUCTIVE EFFECTS: N/AV.

TERATOGENICITY: N/AV.

MUTAGENICITY: N/AV.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

CONTACT MAY AGGRAVATE DISORDERS ON THE EYES, SKIN, RESPIRATORY SYSTEM AND GASTROINTESTINAL TRACT.

ADDITIONAL HEALTH HAZARDS:

INHALATION OF SILICA CAN CAUSE A CHRONIC LUNG DISORDER, SILICOSIS.

SECTION 12: ECOLOGICAL INFORMATION

IMPORTANT ENVIRONMENTAL CHARACTERISTICS:

ALKALINE SUBSTANCE THAT INCREASES PH TO A MAXIMUM OF 12.4 IN A SATURATED WATER SOLUTION AT 25°C. CALCIUM HYDROXIDE GRADUALLY REACTS WITH CO₂ IN AIR TO FORM CALCIUM CARBONATE (CaCO₃). CALCIUM CARBONATE IS ECOLOGICALLY NEUTRAL.

ECOTOXICOLOGICAL: UNCONTROLLED SPILLAGE IN SURFACE WATERS SHOULD BE AVOIDED SINCE THE INCREASE PH COULD BE DETRIMENTAL TO FISH. HARMFUL TO AQUATIC LIFE IN HIGH CONCENTRATION.

SECTION 13: DISPOSAL CONSIDERATIONS

HANDLING FOR DISPOSAL: HANDLE WASTE ACCORDING TO RECOMMENDATIONS IN SECTION 7.

METHOD OF DISPOSAL: DISPOSE ACCORDING TO FEDERAL, PROVINCIAL AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14: TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: CALCIUM HYDROXIDE

TDG CLASSIFICATION: NOT REGULATED

SECTION 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION: E, CORROSIVE MATERIAL. D2A, MATERIALS CAUSING OTHER TOXIC EFFECTS

SECTION 16: OTHER INFORMATION

LEGEND:	ACGIH	AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS
	CAS #	CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER
	IARC	INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
	LC	LETHAL CONCENTRATION
	LD	LETHAL DOSE
	MSHA	MINE SAFETY AND HEALTH ASSOCIATION
	N/AP.	NOT APPLICABLE
	N/AV.	NOT AVAILABLE
	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
	PEL	PERMISSIBLE EXPOSURE LIMIT
	STEL	SHORT TERM EXPOSURE LIMIT
	TDG	TRANSPORTATION OF DANGEROUS GOODS ACT/REGULATIONS
	TLV	THRESHOLD LIMIT VALUE
	TWA	TIME WEIGHTED AVERAGE
	WHMIS	WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM

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