



KENCRO

CHEMICALS

PRODUCT: CALCIUM CHLORIDE 77-80% FLAKES

SECTION 1: PRODUCT INFORMATION

T.D.G. CLASSIFICATION	NOT REGULATED
UN NUMBER	N.AP.
PACKING GROUP	N.AP.
PRODUCT NAME	FLAKE CALCIUM CHLORIDE
WHMIS CLASSIFICATION	D2
CHEMICAL FORMULA	CACL ₂ *2H ₂ O
MOLECULAR WEIGHT	129.00
CHEMICAL FAMILY	N.AV.
MATERIAL USE	ROAD STABILIZATION, ANTI-DUST TREATMENT OF ROADS, DEICING, CONCRETE ADDITIVE, DEINKING
HAZARD RATINGS	FIRE ND TOXICITY ND REACTIVITY ND SPECIAL N.AP.

SECTION 2: HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	%	T.L.V.	C.A.S. #	LD/50,ROUTE,SPECIE	LC/50,ROUTE,SPECIE
CALCIUM CHLORIDE	0.77	--- --	10043-52-4	N.AV.	N.AV.

SECTION 3: PHYSICAL DATA

APPEARANCE	WHITE OR OFF-WHITE FLAKES
PHYSICAL STATE	SOLID
ODOUR	NONE
ODOUR THRESHOLD	N.AP.
VAPOUR PRESSURE (MMHG)	N.AP.
VAPOUR DENSITY (AIR=1)	N.AP.
EVAPORATION RATE	N.AP.
BOILING POINT	>1600 °C
MELTING POINT	772°C
PH	ALKALINE
SPECIFIC GRAVITY (WATER=1)	2.16 @ 25°C
SOLUBILITY IN WATER (% W/W)	SOLUBLE
COEFFICIENT OF WATER/OIL DIST.	N.AP.
BULK DENSITY	0.8-0.9 KG/DM ³
NOTE	PRODUCT IS VERY HYGROSCOPIC.

SECTION 4: FIRE AND EXPLOSION DATA

FLAMMABILITY	NOT FLAMMABLE
IF YES, UNDER WHAT CONDITIONS?	
EXTINGUISHING MEDIA	FOR FIRES INVOLVING THIS PRODUCT, WATER FOG, CARBON DIOXIDE (CO ₂), FOAM OR CHEMICAL MAY BE USED
SPECIAL PROCEDURES	WEAR NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS (SCBA) WHEN EITHER IN CONFINED AREAS OR EXPOSED TO COMBUSTION PRODUCTS. USE WATER TO COOL FIRE EXPOSED CONTAINERS
FLASH POINT(C), METHOD	N.AP.
AUTO IGNITION TEMPERATURE	N.AP.

PRODUCT: CALCIUM CHLORIDE 77-80% FLAKES

T.D.G. FLAM. CLASS	NOT REGULATED
UPPER FLAMMABLE LIMIT (UFL) (% BY VOL)	N.AP.
LOWER FLAMMABLE LIMIT (LFL) (% BY VOL)	N.AP.
UNUSUAL FIRE AND EXPLOSION	MAY EMIT TOXIC FUMES OF CHLORIDE IF TREATED TO DECOMPOSITION (>772°C)
HAZARDOUS COMBUSTION PRODUCTS	TOXIC FUMES OF CHLORIDE UPON DECOMPOSITION (>772°C)
EXPLOSION DATA	
SENSITIVITY TO STATIC DISCHARGE	N.AV.
SENSITIVITY TO IMPACT	N.AV.
RATE OF BURNING	N.AP.
EXPLOSIVE POWER	N.AP.

SECTION 5: REACTIVITY DATA

CHEMICAL STABILITY	
YES	STABLE UNDER NORMAL CONDITIONS OF USE. PROTECT FROM HUMIDITY.
NO, WHICH CONDITIONS?	
COMPATIBILITY WITH OTHER SUBSTANCES:	
YES	
NO, WHICH ONES?	AVOID CONTACT WITH WATER AND METALS. AQUEOUS SOLUTION OF $CaCl_2$ WILL CORRODE METALS. $CaCl_2$ WILL ALSO ATTACK ALUMINUM, ITS ALLOYS AND YELLOW BRASS. REACTS VIOLENTLY WITH BROMINE TRIFLUORIDE (BrF_3), OR A MIXTURE OF BORON TRIOXIDE AND CALCIUM OXIDE ($B_2O_3 + CaO$). SULPHURIC ACID: YIELDS HYDROGEN CHLORIDE GAS, WHICH IS CORROSIVE, IRRITATING AND REACTIVE. WATER-REACTIVE MATERIALS SUCH AS SODIUM: CAUSES AN EXOTHERMIC REACTION. METHYL VINYL ETHER: STARTS RUNAWAY POLYMERIZATION REACTION. ZINC AS IN GALVANIZED IRON: YIELDS HYDROGEN GAS WITH SOLUTIONS, WHICH MAY EXPLODE UNDER THESE CONDITIONS.
REACTIVITY CONDITIONS	SEE BELOW
HAZARDOUS POLYMERIZATION CONDITIONS TO AVOID	WILL NOT OCCUR WILL UNDERGO VIOLENT POLYMERIZATION WITH METHYL VINYL ETHER THE ANHYDROUS, MONOHYDRATE, DIHYDRATE AND TETRAHYDRATE FORMS OF CALCIUM CHLORIDE, WHEN DISSOLVED IN WATER, PRODUCE CONSIDERABLE AMOUNTS OF HEAT. TEMPERATURE ABOVE 760°C CAUSES DECOMPOSITION TO CORROSIVE AND TOXIC SULFURIC TRIOXIDE GAS
HAZARDOUS PRODUCTS OF DECOMPOSITION	TOXIC FUMES OF CHLORIDE UPON DECOMPOSITION (>772°C)

SECTION 6: TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY	
SKIN CONTACT	MAY IRRITATE THE SKIN. PROLONGED CONTACT WITH WET SKIN MAY CAUSE MACERATION WITH RISK OF DERMATITIS. MAY HAVE DEHYDRATING EFFECT.
SKIN ABSORPTION	N.AV.
EYE CONTACT	WILL RESULT IN MECHANICAL IRRITATION RESULTING IN WEEPING AND REDNESS OF THE EYES. PROLONGED CONTACT MAY CAUSE MODERATE TO SEVERE IRRITATION.
INHALATION	SLIGHT DUST IRRITATION OF RESPIRATORY TRACT.
INGESTION	SLIGHT IRRITATION OF MOUTH AND THROAT
EFFECTS OF ACUTE EXPOSURE	REFER TO ROUTE OF ENTRY
EFFECTS OF CHRONIC EXPOSURE	EXCESSIVE CONTACT MAY PRODUCE 'SODA ULCERS' ON HANDS. PROLONGED INHALATION MAY RESULT IN ULCERATION OF NASAL MUCOUS
LD 50 MATERIAL, SPECIES & ROUTE	SEE SECTION II
LC 50 MATERIAL, SPECIES & ROUTE	SEE SECTION II
EXPOSURE LIMIT OF MATERIAL	SEE SECTION II

PRODUCT: CALCIUM CHLORIDE 77-80% FLAKES

IRRITANCY OF MATERIAL	SEE ABOVE
SENSITIZING CAPABILITY OF MATERIAL	N.AP.
CARCINOGENICITY OF MATERIAL	NOT CONSIDERED TO BE A CARCINOGEN BY IARC
REPRODUCTIVE EFFECTS	N.AV.
TERATOGENICITY	N.AV.
MUTAGENICITY	N.AV.
SYNERGISTIC MATERIALS	N.AP.

SECTION 7: PREVENTATIVE MEASURES

GLOVES/TYPE	CHEMICAL RESISTANT GLOVES
RESPIRATORY/TYPE	WEAR A NIOSH/MSHA APPROVED CHEMICAL CARTRIDGE FILTER DESIGNED TO REMOVE DUST PARTICLES DURING PRODUCT APPLICATION OR IF OCCUPATIONAL EXPOSURE LIMITS (TLV) ARE EXCEEDED
EYE/TYPE	WEAR CHEMICAL GOGGLES
FOOTWEAR/TYPE	NONE REQUIRED
CLOTHING /TYPE	NONE REQUIRED
OTHER/TYPE	REMOVE AND WASH CONTAMINATED CLOTHING BEFORE REUSE. WASH THOROUGHLY AFTER HANDLING.
ENGINEERING CONTROLS	GENERAL MECHANICAL VENTILATION SYSTEM IS ADEQUATE, HOWEVER LOCAL EXHAUST SYSTEM IS PREFERRED
LEAK/SPILL	WEAR NECESSARY PROTECTIVE CLOTHING EQUIPMENT. SWEEP UP WHILE AVOIDING DUST GENERATION. PLACE IN A PROPERLY LABELLED CONTAINER FOR LATER DISPOSAL. LARGER SPILLS MAY REQUIRE A VACUUM.
WASTE DISPOSAL	MAY BE DEPOSITED IN A CHEMICAL DUMP. DISPOSAL SHALL BE IN ACCORDANCE TO ALL APPLICABLE FEDERAL, PROVINCIAL AND MUNICIPAL WASTE REGULATIONS.
HANDLING PROCEDURES AND EQUIPMENT	DO NOT HANDLE UNLESS THE SAFETY PRECAUTIONS HAVE BEEN READ AND UNDERSTOOD. AVOID EYE AND SKIN CONTACT. AVOID INHALATION OF DUST OR VAPORS. DO NOT PUNCTURE, DRAG OR SLIDE CONTAINERS. DO NOT SMOKE IN ANY CHEMICAL BUILDING OR STORAGE AREA. WASH HANDS BEFORE EATING.
STORAGE NEEDS	STORE IN A COOL, DRY AND WELL VENTILATED LOCATION. PROTECT FROM HUMIDITY. KEEP CONTAINERS TIGHTLY CLOSED. STORE AWAY FROM INCOMPATIBLE MATERIALS. IF STORED OUTDOORS FOR A LONG PERIOD (>6 MONTHS) IT IS RECOMMENDED TO PROTECT THEM AGAINST UV RAYS WITH A TARPAULIN (BLACK POLYETHYLENE SHEET)
SPECIAL SHIPPING INSTRUCTIONS	SEE SECTION 1 TDG CLASSIFICATION

SECTION 8: FIRST AID MEASURES

INSTRUCTIONS:

EYE CONTACT: FLUSH EYES IMMEDIATELY (LESS THAN 10 SECONDS AFTER EXPOSURE) WITH FLOWING WATER FOR AT LEAST 15 MINUTES WHILE KEEPING THE UPPER AND LOWER EYELIDS APART. OBTAIN MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT: REMOVE CONTAMINATED CLOTHING. IMMEDIATELY WASH AFFECTED SKIN AREA WITH WATER AND RINSE THOROUGHLY WITH FLOWING WATER FOR AT LEAST 15 MINUTES. OBTAIN MEDICAL ATTENTION IMMEDIATELY.

INGESTION: GIVE WATER OR MILK. DO NOT INDUCE VOMITING. OBTAIN MEDICAL ATTENTION IMMEDIATELY.

INHALATION: MOVE VICTIM TO FRESH AIR. ASSIST BREATHING IF NECESSARY. GIVE OXYGEN OR ADMINISTER ARTIFICIAL RESPIRATION IF REQUIRED. OBTAIN MEDICAL ATTENTION IMMEDIATELY.

SPECIAL NOTE: NEVER GIVE FLUIDS OR INDUCE VOMITING TO AN UNCONSCIOUS VICTIM. PLACE VICTIM IN A STABLE SIDE POSITION AND KEEP WARM.

PRODUCT: CALCIUM CHLORIDE 77-80% FLAKES

SECTION 9: PREPARATION INFORMATION

EMERGENCY PHONE NO	(613) 996 6666 (CANUTEC)
PREPARED BY	KENCRO CHEMICALS LIMITED
	(905) 827 4133
DATE	JUNE 2008

LEGEND:

ACGIH	AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS
CAS #	CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER
IARC	INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
LFL	LOWER FLAMMABLE LIMIT
N.AP	NOT APPLICABLE
N. AV	NOT AVAILABLE
NIOSH	NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH
SCBA	SELF-CONTAINED BREATHING APPARATUS
T.D.G.	TRANSPORTATION OF DANGEROUS GOODS ACT/REGULATIONS
TLV	THRESHOLD LIMIT VALUE
UFL	UPPER FLAMMABLE LIMIT
WHMIS	WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM

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