



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: B2, D2B

MATERIAL REFERENCE NO: 109100

SECTION I - MATERIAL IDENTIFICATION AND USE

MATERIAL NAME/I.D.: BRAKLEEN (BULK)	
CHEMICAL NAME: NOT APPLICABLE	CHEMICAL FAMILY: BLENDED PRODUCT
CHEMICAL FORMULA: MIXTURE	MOLECULAR WEIGHT: NOT APPLICABLE
SYNONYMS: NONE	
MATERIAL USE: BRAKE CLEANER	

SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS INGREDIENTS	APPROX. % CONCENT.	TLV PPM	C.A.S. NUMBERS	LD 50 ORAL, RAT
METHANOL	60.0-100.0	250 STEL	67-56-1	5628 MG/KG
		200 TWA		
GLYCOL ETHER PM	10.0-30.0	NOT	108-65-6	8532 MG/KG
ACETATE		AVAILABLE		
DIPROPYLENE GLYCOL	1.0-5.0	100	34590-94-8	5400 MG/KG
MONOMETHYL ETHER				

SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: LIQUID		
ODOUR AND APPEARANCE: CLEAR LIQUID, SWEET ALCOHOL ODOUR;		
ODOUR THRESHOLD (PPM)	SPECIFIC GRAVITY	VAPOUR PRESSURE (MM)
NOT ESTABLISHED	0.81	NOT ESTABLISHED
VAPOUR DENSITY (AIR=1)	EVAPORATION RATE	SOLUBILITY IN WATER
NOT ESTABLISHED	NOT ESTABLISHED	(20°C) COMPLETE
BOILING POINT (C)	FREEZING POINT (C)	% VOLATILE (BY VOLUME)
INITIAL: 65	< - 30	>80
pH (10% SOLUTION)	DENSITY (G/ML)	COEF.OF WATER/OIL DISTR
NOT APPLICABLE	NOT APPLICABLE	NOT ESTABLISHED



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SECTION IV - FIRE AND EXPLOSION HAZARD OF MATERIAL

FLAMMABILITY: FLAMMABLE			
MEANS OF EXTINCTION: FOAM, DRY CHEMICAL, CO2, WATER FOG.			
SPECIAL PROCEDURES: WEAR FULL PROTECTIVE EQUIPMENT INCLUDING SELF-			
CONTAINED BREATHING APPARATUS.			
FLASH POINT (C) AND METHOD: 12 (TCC)			
HAZARDOUS COMBUSTION PRODUCTS: OXIDES OF CARBON, ACRID SMOKE AND			
IRRITATING FUMES.			
UPPER EXPLOSION LIMIT	LOWER EXPLOSION LIMIT	AUTOIGNITION TEMP (C)	
36% (METHANOL)	6% (METHANOL)	385 (METHANOL)	
EXPLOSION DATA SENSITIVITY RATE OF BURNING			
TO CHEMICAL IMPACT			
NOT KNOWN	NOT ESTABLISHED	NOT ESTABLISHED	
SENSITIVITY TO STATIC DISCHARGE: YES			

SECTION V - REACTIVITY DATA

CHEMICAL STABILITY: YES			
IF NO, UNDER WHICH CONDITIONS:			
INCOMPATIBILITY TO OTHER SUBSTANCES: YES			
IF SO, WHICH ONES: STRONG INORGANIC ACIDS, STRONG BASES, STRONG			
OXIDIZING AGENTS, LEAD, ALUMINUM.			
REACTIVITY AND UNDER WHAT CONDITIONS: NOT ESTABLISHED			
MAY BE CORROSIVE TO LEAD AND ALUMINUM.			
HAZARDOUS POLYMERIZATION WILL NOT OCCUR.			
HAZARDOUS DECOMPOSITION PRODUCTS: OXIDES OF CARBON, FORMALDEHYDE.			
ACRID SMOKE AND IRRITATING FUMES WHEN HEATED TO DECOMPOSITION.			

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-LIQUID OR MIST CAN IRRITATE THE EYES. SYMPTOMS MAY INCLUDE BURNING SENSATION, PAIN, WATERING, EYE INJURY WHICH MAY PERSIST FOR SEVERAL DAYS.
SKIN-PROLONGED OR REPEATED CONTACT MAY CAUSE DRYING, CRACKING OR IRRITATION, CENTRAL NERVOUS SYSTEM DEPRESSION.
SKIN ABSORPTION-MAY BE ABSORBED THROUGH THE SKIN IN TOXIC AMOUNTS.
INHALATION-BREATHING OF HIGH AIRBORNE CONCENTRATIONS CAN IRRITATE THE MUCOUS MEMBRANES, CAUSE HEADACHES, SLEEPINESS, NAUSEA, CONFUSION
INGESTION-MAY BE FATAL IF SWALLOWED. CAN CAUSE MENTAL SLUGGISHNESS, NAUSEA, AND VOMITING LEADING TO SEVERE ILLNESS. MAY PRODUCE ADVERSE EFFECTS ON VISION WITH POSSIBLE BLINDNESS IF TREATMENT IS NOT RECEIVED.

EFFECTS OF CHRONIC EXPOSURE TO MATERIAL:
EYES-EXCESSIVE EXPOSURES CAN CAUSE CORNEAL DAMAGE.

LD 50 OF MATL.	LC 50 OF MATL.	EXPOSURE LIMIT(S)	IRRITANCY OF MATL
NOT AVAILABLE	NOT AVAILABLE	SEE INGREDIENTS	TO EYES AND SKIN

SENSITIZATION OF MATERIAL	SYNERGISTIC MATERIALS
NOT AVAILABLE	NOT AVAILABLE

CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY:
METHANOL IS REPORTED TO CAUSE BIRTH DEFECTS IN RATS EXPOSED TO 20,000 PPM. IN EXPERIMENTAL ANIMALS METHANOL IS FETOTOXIC, TERATOGENIC AND HAS PRODUCED BEHAVIORAL ABNORMALITIES IN OFFSPRING AT DOSAGES NOT PRODUCING MATERNAL TOXIC EFFECTS.

SECTION VII - PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:
GLOVES: BUTYL RUBBER, NITRILE.
RESPIRATORY: NIOSH APPROVED AIR SUPPLIED RESPIRATOR IN CONFINED OR POORLY VENTILATED AREAS WHERE AIRBORNE CONCENTRATIONS EXCEED EXPOSURE LIMITS.
EYE: CHEMICAL GOGGLES
FOOTWEAR: CHEMICAL RESISTANT.
CLOTHING: CHEMICAL RESISTANT.
OTHER: EYE WASH AND SAFETY SHOWER.
ENGINEERING CONTROLS (EG VENTILATION, ENCLOSED PROCESS): EXPLOSION PROOF LOCAL EXHAUST VENTILATION AS NECESSARY TO MAINTAIN EXPOSURES WITHIN APPLICABLE LIMITS.

LEAK AND SPILL PROCEDURE: CONTAIN SPILL, REMOVE ALL IGNITION SOURCES
PROVIDE ADEQUATE VENTILATION. USING EXPLOSION PROOF EQUIPMENT,
TRANSFER TO SUITABLE CONTAINER FOR REUSE OR DISPOSAL. ABSORB REMAINING MATERIAL ONTO INERT ABSORBENT AND SCOOP INTO DISPOSAL CONTAINER. FLUSH RESIDUAL WITH VOLUMES OF WATER. KEEP OUT OF SEWERS AND STREAMS.

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



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SECTION VIII - FIRST AID MEASURES

PROCEDURES:
EYE CONTACT: IMMEDIATELY AND GENTLY FLUSH EYES WITH RUNNING WATER
FOR AT LEAST MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL
ATTENTION.
SKIN CONTACT: REMOVE CONTAMINATED CLOTHING. FLUSH WITH WATER FOR AT
LEAST 15 MINUTES. GET MEDICAL ATTENTION. LAUNDER CLOTHING BEFORE
REUSE.
INHALATION: REMOVE TO FRESH AIR. GIVE OXYGEN IF BREATHING IS
DIFFICULT. GET MEDICAL ATTENTION.
INGESTION: DO NOT INDUCE VOMITING. DO NOT GIVE ANYTHING BY MOUTH IF
VICTIM IS UNCONSCIOUS OR CONVULSING. GET IMMEDIATE MEDICAL ATTENTION
SYMPTOMS MAY BE DELAYED FOR 18-24 HOURS AFTER INGESTION.
SOURCES USED: RAW MATERIAL SUPPLIER'S MATERIAL SAFETY DATA SHEETS
ADDITIONAL INFORMATION:

SECTION IX - TDG SHIPPING INFORMATION

SHIPPING NAME	CLASS	UN NO.	PACKING GROUP
FLAMMABLE LIQUIDS, TOXIC, N.O.S. (METHANOL)	3 (6.1)	1992	II

HANDLING PROCEDURES AND EQUIPMENT: AVOID CONTACT WITH EYES, SKIN AND
CLOTHING. AVOID BREATHING VAPOURS, USE IN WELL-VENTILATED AREAS.
WASH THOROUGHLY AFTER USE.
STORAGE REQUIREMENTS: STORE IN A COOL, DRY, WELL-VENTILATED AREA.
KEEP AWAY FROM SOURCES OF IGNITION. KEEP OUT OF DIRECT SUNLIGHT.
CONTAINERS CLOSED WHEN NOT IN USE.
SPECIAL SHIPPING INFORMATION: NOT APPLICABLE

SECTION X - HAZARD RATING INFORMATION

FLAMMABILITY	REACTIVITY	HEALTH
4	1	2

SECTION XI - PREPARATION DATE OF MSDS

PREPARED BY: TECHNICAL DEPARTMENT TELEPHONE # (905) 456-9444
REVIEWED: OCTOBER 6, 2009

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