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PRODUCT: FIRESTORM COLOUR FLAME SOLUTION**CODE: 597757****Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

MANUFACTURER/SUPPLIER..... CANADA COLORS & CHEMICALS LTD.
 80 SCARSDALE ROAD,
 DON MILLS, ON
 M3B 2R7

PREPARED BY..... Regulatory Affairs
 PREPARATION DATE..... May02/06
 PRODUCT NAME..... METHANOL
 PRODUCT CODE..... 597757
 SYNONYMS..... METHYL ALCOHOL, METHYL HYDRATE, WOOD SPIRIT, METHYL HYDROXIDE.
 CHEMICAL FORMULA..... CH3OH.
 MOLECULAR WEIGHT..... 32.04.
 CHEMICAL FAMILY..... ORGANIC.
 MATERIAL USE..... SOLVENT, FUEL, FEED STOCK. REFER TO TECHNICAL LITERATURE.
 EMERGENCY PHONE NO..... (416)-444-2112.

Section 02: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	%	Exposure Limit	C.A.S.#	LD/50, Route,Species	LC/50 Route,Species
METHANOL	99.85	SEE SECTION 11	67-56-1	SEE SECTION 11	SEE SECTION 11

Section 03: HAZARDS IDENTIFICATION

NOTES TO PHYSICIAN:..... ACUTE EXPOSURE TO METHANOL, EITHER THOROUGH INGESTION OR BREATHING HIGH AIRBORNE CONCENTRATIONS CAN RESULT IN SYMPTOMS APPEARING BETWEEN 40 MINUTES AND 72 HOURS AFTER EXPOSURE. SYMPTOMS AND SIGNS ARE USUALLY LIMITED TO CNS, EYES AND GASTROINTESTINAL TRACT. BECAUSE OF THE INITIAL CNS'S EFFECTS OF HEADACHE, VERTIGO, LETHARGY AND CONFUSION, THERE MAY BE AN IMPRESSION OF ETHANOL INTOXICATION. BLURED VISION, DECREASED ACUITY AND PHOTOPHOBIA ARE COMMON COMPLAINTS. TREATMENT WITH IPECAC OR LAVAGE IS INDICATED IN ANY PATIENT PRESENTING WITHIN TWO HOURS OF INGESTION. A PROFOUND METABOLIC ACIDOSIS OCCURS IN SEVERE POISONING AND SERUM BICARBONATE LEVELS ARE A MORE ACCURATE MEASURE OF SEVERITY THAN SERUM METHANOL LEVELS. TREATMENT PROTOCOLS ARE AVAILABLE FROM MOST MAJOR HOSPITALS AND EARLY COLLABORATION WITH APPROPRIATE HOSPITALS IS RECOMMENDED.

ROUTE OF ENTRY:

SKIN CONTACT..... IRRITANT.
 SKIN ABSORPTION..... MAY BE ABSORBED THROUGH THE SKIN IN TOXIC OR LETHAL AMOUNTS.
 EYE CONTACT..... MODERATE IRRITANT. HIGH CONCENTRATION OR LIQUID CONTACT WITH EYES CAUSES IRRITATION, TEARING AND BURNING.

INHALATION..... INHALATION OF HIGH AIRBORNE CONCENTRATIONS CAN ALSO IRRITATE MUCOUS MEMBRANES, CAUSE HEADACHES, SLEEPINESS, NAUSEA, CONFUSION, LOSS OF CONSCIOUSNESS, DIGESTIVE AND VISUAL DISTURBANCES AND DEATH. NOTE: THE ODOUR THRESHOLD OF METHANOL IS SEVERAL TIMES HIGHER THAN THE TLV-TWA.

INGESTION..... SWALLOWING EVEN SMALL AMOUNTS OF METHANOL MAY CAUSE BLINDNESS OR DEATH. EFFECTS OF SUB LETHAL DOSES MAY BE NAUSEA, HEADACHE, ABDOMINAL PAIN, VOMITING AND VISUAL DISTURBANCES RANGING FROM BLURRED VISION TO LIGHT SENSITIVITY.

EFFECTS OF ACUTE EXPOSURE..... REFER TO ROUTE OF ENTRY.
 EFFECTS OF CHRONIC EXPOSURE..... REPEATED EXPOSURE TO METHANOL BY INHALATION OR ABSORPTION MAY CAUSE SYSTEMIC POISONING, BRAIN DISORDERS, IMPAIRED VISION AND BLINDNESS. INHALATION MAY WORSEN CONDITIONS SUCH AS EMPHYSEMA OR BRONCHITIS. REPEATED SKIN CONTACT MAY CAUSE DERMAL IRRITATION, DRYNESS AND CRACKING.

Section 04: FIRST AID MEASURES

INSTRUCTIONS:
 INSTRUCTIONS:..... SKIN: REMOVE CONTAMINATED CLOTHING; WASH UNDER SHOWER WITH SOAP AND WATER FOR 15 MINUTES. SEEK MEDICAL ATTENTION IF IRRITATION OCCURS. EYE: FLUSH IMMEDIATELY WITH GENTLY RUNNING WATER FOR A MINIMUM OF 15 MINUTES, ENSURING ALL SURFACES AND CREVICES ARE FLUSHED BY LIFTING LOWER AND UPPER LIDS. OBTAIN MEDICAL ATTENTION.

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Section 04: FIRST AID MEASURES

INSTRUCTIONS:..... INHALATION: REMOVE TO FRESH AIR, RESTORE OR ASSIST BREATHING IF NECESSARY, OBTAIN MEDICAL ATTENTION IMMEDIATELY. INGESTION: SWALLOWING METHANOL IS LIFE THREATENING. ONSET OF SYMPTOMS MAY BE DELAYED FOR 18 TO 24 HOURS AFTER INGESTION. IF CONSCIOUS AND MEDICAL AID IS NOT IMMEDIATELY AVAILABLE, DO NOT INDUCE VOMITING. TRANSPORT TO MEDICAL ATTENTION.

Section 05: FIRE FIGHTING MEASURES

FLAMMABILITY..... YES.
 IF YES, UNDER WHICH CONDITIONS?..... IN THE PRESENCE OF AN IGNITION SOURCE.
 EXTINGUISHING MEDIA..... SMALL FIRES: CARBON DIOXIDE. DRY CHEMICAL. WATER SPRAY. LARGE FIRES: WATER SPRAY, AQUEOUS FILM FORMING FOAM (ALCOHOL RESISTANT) (AFFF(R)) TYPE WITH EITHER A 3% OR 6% FOAM PROPORTIONING SYSTEM.
 SPECIAL PROCEDURES..... METHANOL BURNS WITH A CLEAN CLEAR FLAME THAT IS ALMOST INVISIBLE IN DAYLIGHT. STAY UPWIND. ISOLATE AND RESTRICT AREA ACCESS. CONCENTRATIONS OF GREATER THAN 25% METHANOL IN WATER CAN BE IGNITED. USE FINE WATER SPRAY OR FOG TO CONTROL FIRE SPREAD AND COOL ADJACENT STRUCTURES OR CONTAINERS. CONTAIN FIRE CONTROL WATER FOR LATER DISPOSAL. FIRE FIGHTERS MUST WEAR FULL FACE, POSITIVE PRESSURE, SELF-CONTAINED BREATHING APPARATUS OR AIRLINE AND APPROPRIATE PROTECTIVE CLOTHING. PROTECTIVE FIRE FIGHTING STRUCTURAL CLOTHING IS NOT EFFECTIVE PROTECTION FROM METHANOL. DO NOT WALK THROUGH SPILLED PRODUCT.
 FLASH POINT (C), METHOD..... 11 (52 F) TCC; 15.6 (60 F) TOC.
 AUTO IGNITION TEMPERATURE..... 385 C (NFPA 1978); 470 C (KIRK-OTHMER 1981; ULLMANN 1975).
 UPPER FLAMMABLE LIMIT (% BY VOL.).... 36 (NFPA 1978); 36.5 (ULLMANN 1975).
 LOWER FLAMMABLE LIMIT (% BY VOL.)... 6.
 EXPLOSION DATA..... N.AV.
 EXPLOSIVE POWER..... N.AV.
 RATE OF BURNING..... N.AV.
 SENSITIVITY TO STATIC DISCHARGE..... LOW.
 SENSITIVITY TO IMPACT..... N.AV.
 UNUSUAL FIRE AND EXPLOSION METHANOL BURNS WITH A CLEAN CLEAR FLAME THAT IS ALMOST INVISIBLE IN DAYLIGHT. VAPOURS MAY TRAVEL TO A SOURCE OF IGNITION AND FLASH BACK.
 HAZARDS
 HAZARDOUS COMBUSTION PRODUCTS.. TOXIC GASES AND VAPOURS; OXIDES OF CARBON AND FORMALDEHYDE.

Section 06: ACCIDENTAL RELEASE MEASURES

SPILL/LEAK..... FLAMMABLE LIQUID. RELEASE CAN CAUSE AN IMMEDIATE FIRE/EXPLOSION HAZARD. ELIMINATE ALL IGNITION SOURCES, STOP LEAK AND USE NON-COMBUSTIBLE ABSORBENT MATERIALS. IF NECESSARY, CONTAIN SPILL BY DIKING. FLUOROCARBON ALCOHOL RESISTANT FOAMS MAY BE APPLIED TO SPILL TO DIMINISH VAPOUR AND FIRE HAZARD. MAXIMIZE METHANOL RECOVERY FOR RECYCLING OR REUSE. COLLECT LIQUID WITH EXPLOSION PROOF PUMPS. FOR SMALL SPILLS, COLLECT WITH A NON-COMBUSTIBLE ABSORBENT MATERIAL. RECOVER METHANOL OR DILUTE WITH WATER TO REDUCE FIRE HAZARD. PREVENT SPILLED METHANOL FROM ENTERING SEWERS, CONFINED SPACES, DRAINS, OR WATERWAYS. RESTRICT ACCESS TO UNPROTECTED PERSONNEL. FULL-FACE, POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS OR AIRLINE AND PROTECTIVE CLOTHING MUST BE WORN. PROTECTIVE FIRE FIGHTING STRUCTURAL CLOTHING IS NOT EFFECTIVE PROTECTION FROM METHANOL. DO NOT WALK THROUGH SPILLED PRODUCT AS IT MAY BE ON FIRE AND NOT VISIBLE.

Section 07: HANDLING AND STORAGE

HANDLING PROCEDURES AND KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME. AVOID BREATHING EQUIPMENT VAPOURS. AVOID EYE AND SKIN CONTACT. DO NOT INGEST. WEAR PROTECTIVE EQUIPMENT DURING HANDLING. HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICES. NO SMOKING OR OPEN FLAME IN STORAGE, USE OR HANDLING. USE EXPLOSION PROOF ELECTRICAL EQUIPMENT. ENSURE PROPER ELECTRICAL GROUNDING PROCEDURES ARE IN PLACE. EQUIPMENT MUST BE GROUNDED. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. EMPTY CONTAINERS ARE HAZARDOUS, MAY CONTAIN FLAMMABLE/EXPLOSIVE DUSTS, LIQUID RESIDUE OR VAPOURS. FOLLOW LABEL WARNINGS EVEN AFTER CONTAINER IS EMPTIED.
 SHIPPING INFORMATION..... ALL SHIPMENTS OF METHANOL MUST BE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELLED TO CONFORM WITH REGULATIONS SET BY TRANSPORT CANADA (TDG) AND/OR U.S. DEPARTMENT OF TRANSPORT (DOT).

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Section 07: HANDLING AND STORAGE

STORAGE NEEDS..... STORE IN TOTALLY ENCLOSED EQUIPMENT, DESIGNED TO AVOID IGNITION AND HUMAN CONTACT. TANKS MUST BE GROUNDED AND VENTED AND SHOULD HAVE VAPOUR EMISSION CONTROLS. TANKS MUST BE DIKED. AVOID STORAGE WITH INCOMPATIBLE MATERIALS. ANHYDROUS METHANOL IS NON-CORROSIVE TO MOST METALS AT AMBIENT TEMPERATURES EXCEPT LEAD AND MAGNESIUM. HOWEVER COATINGS OF COPPER (OR COPPER ALLOYS), ZINC (INCLUDING GALVANIZED STEEL) OR ALUMINIUM ARE UNSUITABLE FOR STORAGE AS THEY ARE ATTACKED SLOWLY. STORAGE TANKS OF WELDED CONSTRUCTION ARE NORMALLY SATISFACTORY. THEY SHOULD BE DESIGNED AND BUILT IN CONFORMANCE WITH GOOD ENGINEERING PRACTICE FOR THE MATERIAL BEING USED. MILD STEEL IS THE RECOMMENDED CONSTRUCTION MATERIAL. TANKS BUILT WITH COPPER ALLOYS (INCLUDING COATINGS OF COPPER), ZINC (INCLUDING GALVANIZED STEEL), ALUMINUM ARE NOT SUITABLE FOR METHANOL-WATER SOLUTIONS. WHILE PLASTICS CAN BE USED FOR SHORT-TERM STORAGE, THEY ARE GENERALLY NOT RECOMMENDED FOR LONG-TERM STORAGE DUE TO DETERIORATION EFFECTS AND THE SUBSEQUENT RISK OF CONTAMINATION.

Section 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

GLOVES/ TYPE..... BUTYL AND NITRILE RUBBERS ARE RECOMMENDED. CHECK WITH GLOVE MANUFACTURER.
 RESPIRATORY/TYPE..... NIOSH APPROVED SUPPLIED AIR RESPIRATOR WHEN AIRBORNE CONCENTRATIONS EXCEED EXPOSURE LIMITS.
 EYE/TYPE..... FACE SHIELD AND CHEMICAL SPLASH GOGGLES WHEN TRANSFERRING IS TAKING PLACE.
 FOOTWEAR/TYPE..... CHEMICAL RESISTANT.
 CLOTHING/TYPE..... WEAR CHEMICAL RESISTANT PANTS AND JACKETS, PREFERABLY BUTYL OR NITRILE RUBBER. CHECK WITH MANUFACTURER.
 OTHER/TYPE..... EYEWASH AND SAFETY SHOWER SHOULD BE READILY AVAILABLE.
 ENGINEERING CONTROLS..... IN CONFINED AREAS, LOCAL AND GENERAL VENTILATION SHOULD BE PROVIDED TO MAINTAIN AIRBORNE CONCENTRATIONS BELOW PERMISSIBLE EXPOSURE LIMITS. VENTILATION SYSTEMS MUST BE DESIGNED ACCORDING TO APPROVED STANDARDS.
 NOTE..... PPE (PERSONAL PROTECTIVE EQUIPMENT) MUST NOT BE CONSIDERED A LONG-TERM SOLUTION TO EXPOSURE CONTROLS. PPE USAGE MUST BE ACCOMPANIED BY EMPLOYER PROGRAMS TO PROPERLY SELECT, MAINTAIN, CLEAN, FIT AND USE. CONSULT A COMPETENT INDUSTRIAL HYGIENE RESOURCE TO DETERMINE HAZARD POTENTIAL AND/OR THE PPE MANUFACTURERS TO ENSURE ADEQUATE PROTECTION.

Section 09: PHYSICAL AND CHEMICAL PROPERTIES

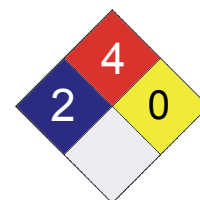
PHYSICAL STATE..... LIQUID.
 ODOUR..... SLIGHT ALCOHOL ODOUR.
 ODOUR THRESHOLD..... 2000 PPM, (IRRITATION AT 1000 PPM, POOR OLFACTORY WARNING PROPERTIES).
 VAPOUR PRESSURE (MMHG)..... 96 AT 20 C (68 F).
 VAPOUR DENSITY (AIR=1)..... 1.105 AT 15 C (59 F).
 EVAPORATION RATE..... 2.1.
 BOILING POINT..... 64.5 C (148 F) AT 760 MM HG.
 FREEZING POINT..... -97.8 C (-144 F).
 PH..... N.A.P.
 SPECIFIC GRAVITY (WATER=1)..... 0.792.
 PERCENT VOLATILE..... 100.
 SOLUBILITY IN WATER (% W/W)..... SOLUBLE (AT 20 C).
 COEFFICIENT OF WATER/OIL DIST..... READILY SOLUBLE IN WATER, SEPARATES FROM OIL.

Section 10: STABILITY AND REACTIVITY

YES..... YES.
 NO, WHICH CONDITIONS?
 COMPATABILITY WITH OTHER
 SUBSTANCES:
 YES
 NO, WHICH ONES?..... STRONG OXIDIZERS, STRONG ACIDS, STRONG BASES. MAY BE CORROSIVE TO LEAD AND ALUMINIUM.
 REACTIVITY CONDITIONS?..... PRESENCE OF INCOMPATIBLE MATERIALS AND IGNITION SOURCES.
 HAZARDOUS PRODUCTS OF FORMALDEHYDE, CARBON DIOXIDE AND CARBON MONOXIDE.
 DECOMPOSITION
 HAZARDOUS POLYMERIZATION..... WILL NOT OCCUR.

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 2
Flammability	4
Physical Hazard	0
Personal Protection	



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Section 11: TOXICOLOGICAL INFORMATION

EXPOSURE LIMIT OF MATERIAL..... METHANOL: ACGIH TLV-TWA 200 PPM, STEL 250 PPM - SKIN NOTATION; OSHA PEL 200 PPM, STEL 250 PPM - SKIN NOTATION.
 LC 50 OF MATERIAL, SPECIES & ROUTE.. METHANOL: 64000 PPM (INHALATION RAT).
 LD 50 OF MATERIAL, SPECIES & ROUTE.. METHANOL: 5.6-13.0 G/KG (ORAL-RAT); 20 ML/KG (DERMAL-RABBIT).
 CARCINOGENICITY OF MATERIAL..... NOT LISTED WITH IARC, NTP, ACGIH OR OSHA AS A CARCINOGEN.
 REPRODUCTIVE EFFECTS..... REPORTED TO CAUSE BIRTH DEFECTS IN RATS EXPOSED TO 20,000 PPM.
 TERATOGENICITY..... NO.
 MUTAGENICITY..... NO.
 IRRITANCY OF MATERIAL..... SEE SECTION 03. 1000 PPM IN AIR MAY CAUSE IRRITATION OF MUCOUS MEMBRANE.
 SENSITIZING CAPABILITY OF MATERIAL. NO.
 SYNERGISTIC MATERIALS..... N.AV.

Section 12: ECOLOGICAL CONSIDERATIONS

ENVIRONMENTAL DATA..... BIODEGRADES EASILY IN WATER. METHANOL IN FRESH OR SALT WATER MAY HAVE SERIOUS EFFECTS ON AQUATIC LIFE. A STUDY ON METHANOL'S TOXIC EFFECTS ON SEWAGE SLUDGE BACTERIA REPORTED LITTLE EFFECT ON DIGESTION AT 0.1% WHILE 0.5% METHANOL RETARDED DIGESTION. METHANOL WILL BE BROKEN DOWN TO CARBON DIOXIDE AND WATER.

Section 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL..... DISPOSE OF IN ACCORDANCE TO ALL LOCAL, PROVINCIAL AND FEDERAL REGULATIONS.

Section 14: TRANSPORT INFORMATION

UN NUMBER..... 1230.
 TDG CLASSIFICATION..... 3(6.1).
 PACKING GROUP..... II.
 SPECIAL SHIPPING INSTRUCTIONS..... N.AP.

Section 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION..... B2, D1A.
 CPR COMPLIANCE..... THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

Section 16: OTHER INFORMATION

ACGIH..... AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS.
 IARC..... INTERNATIONAL AGENCY FOR RESEARCH ON CANCER.
 NFPA..... NATIONAL FIRE PROTECTION ASSOCIATION.
 NIOSH..... NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH.
 NTP..... NATIONAL TOXICOLOGY PROGRAM.
 OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.
 PEL..... PERMISSIBLE EXPOSURE LIMIT.
 STEL..... SHORT-TERM EXPOSURE LIMIT.
 TLV..... TRESHOLD LIMIT VALUE.
 TSCA..... TOXIC SUBSTANCES CONTROL ACT.
 TWA..... TIME-WEIGHTED AVERAGE.
 N.AV.=NOT AVAILABLE
 N.AP.=NOT APPLICABLE