



Canada Colors and Chemicals Limited

CANADA COLORS & CHEMICALS LTD
152 KENNEDY ROAD SOUTH
BRAMPTON, ONTARIO
CANADA L6W 3G4
(905) 459-1232;

PRODUCT: PROPYLENE GLYCOL TECH**CODE: 765503****Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

MANUFACTURER/SUPPLIER..... CANADA COLORS & CHEMICALS LTD.
152 KENNEDY ROAD SOUTH
BRAMPTON, ONTARIO
CANADA
L6W 3G4
PREPARED BY..... Regulatory Affairs
PREPARATION DATE..... Jul27/10
PRODUCT NAME..... PROPYLENE GLYCOL TECH
PRODUCT CODE..... 765503
CHEMICAL FORMULA..... N.A.V.
MOLECULAR WEIGHT..... N.A.V.
MATERIAL USE..... 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
*** AS PER % ***					
PROPYLENE GLYCOL	50-99	SEE SECTION 11	57-55-6	SEE SECTION 11	SEE SECTION 11

Section 03: HAZARDS IDENTIFICATION

ROUTE OF ENTRY:
SKIN CONTACT..... PROLONGED CONTACT IS ESSENTIALLY NONIRRITATING TO SKIN. REPEATED EXPOSURE MAY CAUSE SLIGHT FLAKING, TENDERNESS, AND SOFTENING OF SKIN.
SKIN ABSORPTION..... A SINGLE PROLONGED SKIN EXPOSURE IS NOT LIKELY TO RESULT IN ABSORPTION OF HARMFUL AMOUNTS. MAY BE ABSORBED IN POTENTIALLY HARMFUL AMOUNTS WHEN APPLIED IN LARGE QUANTITIES TO SEVERE BURNS (SECOND OR THIRD DEGREE) OVER LARGE AREAS OF THE BODY AS PART OF A CREAM OR OTHER TOPICAL APPLICATION. ABSORPTION UNDER SUCH CIRCUMSTANCES CAN ELEVATE SERUM OSMOLALITY AND MAY RESULT IN OSMOTIC SHOCK.
EYE CONTACT..... MAY CAUSE SLIGHT TRANSIENT (TEMPORARY) IRRITATION. CORNEAL INJURY IS UNLIKELY. MISTS MAY CAUSE EYE IRRITATION.
INHALATION..... AT ROOM TEMPERATURE, VAPOURS ARE MINIMAL DUE TO PHYSICAL PROPERTIES. MISTS MAY CAUSE IRRITATION OF UPPER RESPIRATORY TRACT.
INGESTION..... SINGLE DOSE ORAL TOXICITY IS CONSIDERED TO BE EXTREMELY LOW. NO HAZARDS ANTICIPATED FROM SWALLOWING SMALL AMOUNTS INCIDENTAL TO NORMAL HANDLING OPERATIONS.
EFFECTS OF ACUTE EXPOSURE..... REFER TO ROUTE OF ENTRY.
EFFECTS OF CHRONIC EXPOSURE..... REFER TO ROUTE OF ENTRY.
SYSTEMIC (OTHER TARGET ORGAN) REPEATED EXCESSIVE INGESTION MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS.

Section 04: FIRST AID MEASURES

INSTRUCTIONS:..... EYE: FLUSH EYES WITH PLENTY OF WATER. SKIN: WASH OFF IN FLOWING WATER OR SHOWER. INGESTION: NO ADVERSE EFFECTS ANTICIPATED BY THIS ROUTE OF EXPOSURE INCIDENTAL TO PROPER INDUSTRIAL HANDLING. INHALATION: REMOVE TO FRESH AIR IF EFFECTS OCCUR.
NOTES TO PHYSICIAN:..... NO SPECIFIC ANTIDOTE. SUPPORTIVE CARE. TREATMENT BASED ON JUDGMENT OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF THE PATIENT.

Section 05: FIRE FIGHTING MEASURES

FLAMMABILITY..... SEE FLASH POINT.
IF YES, UNDER WHICH CONDITIONS?
EXTINGUISHING MEDIA..... WATER FOG OR FINE SPRAY, CARBON DIOXIDE, DRY CHEMICAL, FOAM. ALCOHOL RESISTANT FOAMS (ATC TYPE) ARE PREFERRED IF AVAILABLE. GENERAL PURPOSE SYNTHETIC FOAMS (INCLUDING AFFF) OR PROTEIN FOAMS MAY FUNCTION, BUT MUCH LESS EFFECTIVELY. DO NOT USE DIRECT WATER STREAM. WILL SPREAD FIRE.

PRODUCT: PROPYLENE GLYCOL TECH

CODE: 765503

Section 05: FIRE FIGHTING MEASURES

SPECIAL PROCEDURES..... KEEP PEOPLE AWAY. ISOLATE FIRE AREA AND DENY UNNECESSARY ENTRY. BURNING LIQUIDS MAY BE MOVED BY FLUSHING WITH WATER TO PROTECT PERSONNEL AND MINIMIZE PROPERTY DAMAGE. BURNING LIQUIDS MAY BE EXTINGUISHED BY DILUTION WITH WATER. DO NOT USE DIRECT WATER STREAM. MAY SPREAD FIRE. WEAR POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS (SCBA) AND PROTECTIVE FIRE FIGHTING CLOTHING (INCLUDES FIRE FIGHTING HELMET, COAT, PANTS, BOOTS, AND GLOVES). IF PROTECTIVE EQUIPMENT IS NOT AVAILABLE OR NOT USED, FIGHT FIRE FROM A PROTECTED LOCATION OR SAFE DISTANCE.

FLASH POINT (C), METHOD..... 103 C (218 F) PMCC. (PROPYLENE GLYCOL).

AUTO IGNITION TEMPERATURE..... NOT DETERMINED.

UPPER FLAMMABLE LIMIT (% BY VOL.)... 12.5.

LOWER FLAMMABLE LIMIT (% BY VOL.)... 2.6.

EXPLOSION DATA..... N.AV.

EXPLOSIVE POWER..... N.AV.

RATE OF BURNING..... N.AV.

SENSITIVITY TO STATIC DISCHARGE..... N.AV.

SENSITIVITY TO IMPACT..... N.AV.

ADDITIONAL INFORMATION..... VIOLENT STEAM GENERATION OR ERUPTION MAY OCCUR UPON APPLICATION OF DIRECT WATER STREAM TO HOT LIQUIDS. SPILLS OF THESE ORGANIC LIQUIDS ON HOT FIBROUS INSULATIONS MAY LEAD TO LOWERING OF THE AUTOIGNITION TEMPERATURES POSSIBLY RESULTING IN SPONTANEOUS COMBUSTION.

HAZARDOUS COMBUSTION PRODUCTS.. DURING A FIRE, SMOKE MAY CONTAIN THE ORIGINAL MATERIAL IN ADDITION TO UNIDENTIFIED TOXIC AND/OR IRRITATING COMPOUNDS. HAZARDOUS COMBUSTION PRODUCTS MAY INCLUDE AND ARE NOT LIMITED TO:.

Section 06: ACCIDENTAL RELEASE MEASURES

LEAK/SPILL..... ISOLATE AREA. CONTAIN LIQUID TO PREVENT CONTAMINATION OF SOIL, SURFACE WATER OR GROUND WATER. FOR SMALL SPILLS, CLEAN UP WITH ABSORBENT MATERIAL. COLLECT MATERIAL IN SUITABLE AND PROPERLY LABELLED OPEN CONTAINERS. FOR LARGE SPILLS, DIKE AND PUMP INTO SUITABLE AND PROPERLY LABELLED CONTAINERS.

Section 07: HANDLING AND STORAGE

HANDLING PROCEDURES AND PRODUCT HANDLED HOT MAY REQUIRE ADDITIONAL VENTILATION OR LOCAL EQUIPMENT EXHAUST.

STORAGE NEEDS..... KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. STORE IN STAINLESS STEEL, ALUMINUM, PLASITE 3066 LINED CONTAINERS, OR 316 STAINLESS STEEL.

Section 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

GLOVES/ TYPE..... USE GLOVES IMPERVIOUS TO THIS MATERIAL.

RESPIRATORY/TYPE..... ATMOSPHERIC LEVELS SHOULD BE MAINTAINED BELOW THE EXPOSURE GUIDELINE. WHEN RESPIRATORY PROTECTION IS REQUIRED FOR CERTAIN OPERATIONS, USE AN APPROVED AIR-PURIFYING RESPIRATOR. IN MISTY ATMOSPHERES, USE AN APPROVED MIST RESPIRATOR.

EYE/TYPE..... USE SAFETY GLASSES. SAFETY GLASSES SHOULD BE SUFFICIENT FOR MOST OPERATIONS; HOWEVER, FOR MISTY OPERATIONS WEAR CHEMICAL GOGGLES.

FOOTWEAR/TYPE..... APPROPRIATE PROTECTION.

CLOTHING/TYPE..... IMPERVIOUS CLOTHING.

OTHER/TYPE..... EYE BATH AND SAFETY SHOWER.

ENGINEERING CONTROLS..... PROVIDE GENERAL AND/OR LOCAL EXHAUST VENTILATION TO CONTROL AIRBORNE LEVELS BELOW THE EXPOSURE GUIDELINES.

Section 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE..... LIQUID.

ODOUR..... ODOURLESS.

ODOUR THRESHOLD..... N.AV.

VAPOUR PRESSURE (MMHG)..... 0.08 @ 20 C (68 F). (50% - N.AV.).

VAPOUR DENSITY (AIR=1)..... 2.62. (50% - N.AV.).

EVAPORATION RATE..... N.AP.

BOILING POINT..... 188 C (370 F). (50% - 100-188 C).

SPECIFIC GRAVITY (WATER=1)..... 1.038 20/20 C (68 F). (50% - ~1.023).

SOLUBILITY IN WATER (% W/W)..... COMPLETE.

COEFFICIENT OF WATER/OIL DIST..... N.AV.

PRODUCT: PROPYLENE GLYCOL TECH

CODE: 765503

Section 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:

YES..... STABLE.
 NO, WHICH CONDITIONS?..... PRODUCT CAN DECOMPOSE AT ELEVATED TEMPERATURES.

COMPATABILITY WITH OTHER SUBSTANCES:

YES
 NO, WHICH ONES?..... AVOID CONTACT WITH OXIDIZING MATERIALS.
 HAZARDOUS PRODUCTS OF WHEN AVAILABLE OXYGEN IS LIMITED, AS IN A FIRE OR WHEN HEATED TO VERY
 DECOMPOSITION HIGH TEMPERATURES BY HOT WIRE OR PLATE, CARBON MONOXIDE AND OTHER
 HAZARDOUS COMPOUNDS SUCH AS ALDEHYDES MIGHT BE GENERATED.
 HAZARDOUS POLYMERIZATION..... WILL NOT OCCUR.

Section 11: TOXICOLOGICAL INFORMATION

EXPOSURE LIMIT OF MATERIAL..... PROPYLENE GLYCOL: AIHA WEEL IS 50 PPM TOTAL, 10 MG/M3 AEROSOL ONLY.
 LC 50 OF MATERIAL, SPECIES & ROUTE.. N.AV.
 LD 50 OF MATERIAL, SPECIES & ROUTE.. INGESTION: ORAL FOR RATS IS 20,000-34,000 MG/KG. SKIN: FOR SKIN
 ABSORPTION IN RABBITS IS >10,000 MG/KG.
 CARCINOGENICITY OF MATERIAL..... DID NOT CAUSE CANCER IN LONG-TERM ANIMAL STUDIES.
 TERAUTOGENICITY..... BIRTH DEFECTS ARE UNLIKELY. EXPOSURES HAVING NO ADVERSE EFFECT ON
 THE MOTHER SHOULD HAVE NO EFFECT ON THE FETUS.
 REPRODUCTIVE EFFECTS..... IN ANIMAL STUDIES, HAS BEEN SHOWN NOT TO INTERFERE WITH
 REPRODUCTION.
 MUTAGENICITY..... IN VITRO MUTAGENICITY STUDIES WERE NEGATIVE. ANIMAL MUTAGENICITY
 STUDIES WERE NEGATIVE.
 IRRITANCY OF MATERIAL..... SEE SECTION 03.
 SENSITIZING CAPABILITY OF MATERIAL. SEE SECTION 03.
 SYNERGISTIC MATERIALS..... N.AV.

Section 12: ECOLOGICAL CONSIDERATIONS

ENVIRONMENTAL FATE..... MOVEMENT AND PARTITIONING:.. BASED LARGELY OR COMPLETELY ON
 INFORMATION FOR SIMILAR MATERIALS, I.E. PROPYLENE GLYCOL.
 BIOCONCENTRATION POTENTIAL IS LOW (BCF LESS THAN 100 OR LOG POW LESS
 THAN 3). LOG OCTANOL/WATER PARTITION COEFFICIENT (LOW POW) IS -0.92.
 HENRY'S LAW CONSTANT (H) IS 1.2E-8 ATM.M3/MOLE. DEGRADATION AND
 PERSISTENCE:.. BASED LARGELY OR COMPLETELY ON INFORMATION FOR
 SIMILAR MATERIAL(S), I.E. PROPYLENE GLYCOL. BIODEGRADATION UNDER
 AEROBIC STATIC LABORATORY CONDITIONS IS HIGH (BOD20 OR BOD28/ThOD
 GREATER THAN 40%). BIODEGRADATION IS EXPECTED TO BE ACHIEVABLE IN A
 SECONDARY WASTE-WATER TREATMENT PLANT. 5-DAY BIOCHEMICAL OXYGEN
 DEMAND (BOD5) IS 1.16 P/P. 20-DAY BIOCHEMICAL OXYGEN DEMAND (BOD20) IS
 1.45 P/P. THEORETICAL OXYGEN DEMAND (ThOD) IS CALCULATED TO BE 1.68 P/P.
 INHIBITORY CONCENTRATION (IC50) IN OECD ACTIVATED SLUDGE RESPIRATION
 INHIBITION TEST (OECD TEST NO. 209) IS GREATER THAN 1 MG/L. DEGRADATION
 IS EXPECTED IN THE ATMOSPHERIC ENVIRONMENT WITHIN MINUTES TO HOURS.
 ECOTOXICITY:.. BASED LARGELY OR COMPLETELY ON INFORMATION FOR
 SIMILAR MATERIAL(S), I.E. PROPYLENE GLYCOL. MATERIAL IS PRACTICALLY
 NON-TOXIC TO AQUATIC ORGANISMS ON AN ACUTE BASIS (LC50 GREATER THAN
 100 MG/L IN MOST SENSITIVE SPECIES). ACUTE LC50 FOR FATHEAD MINNOW
 (PIMEPHALES PROMELAS) IS 46500-54900 MG/L. ACUTE LC50 FOR GUPPY
 (POECILIA RETICULATA) IS GREATER THAN 10000 MG/L. ACUTE LC50 FOR WATER
 FLEA DAPHNIA MAGNA IS 4850-34400 MG/L. ACUTE LC50 FOR RAINBOW TROUT
 (ONCORHYNCHUS MYKISS) IS 44 ML/L (ABOUT 44000 MG/L).

Section 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL..... DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF
 WATER. ALL DISPOSAL METHODS MUST BE IN COMPLIANCE WITH ALL FEDERAL,
 STATE/ PROVINCIAL AND LOCAL LAWS AND REGULATIONS . REGULATIONS MAY
 VARY IN DIFFERENT LOCATIONS. WASTE CHARACTERIZATIONS AND
 COMPLIANCE WITH APPLICABLE LAWS ARE THE RESPONSIBILITY SOLELY OF THE
 WASTE GENERATOR.

Section 14: TRANSPORT INFORMATION

TDG CLASSIFICATION..... NOT REGULATED.
 SPECIAL SHIPPING INSTRUCTIONS..... N.AP.

PRODUCT: PROPYLENE GLYCOL TECH

CODE: 765503

Section 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION..... THIS IS NOT A CONTROLLED PRODUCT.
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

NFPA..... H-0, F-1, R-0.
N.AV.=NOT AVAILABLE
N.AP.=NOT APPLICABLE