



KENCRO

CHEMICALS

PRODUCT : PROPYLENE GLYCOL

SECTION 1 : PRODUCT INFORMATION

T.D.G. CLASSIFICATION	NOT CONTROLLED UNDER TDG
UN NUMBER	N.AP.
PACKING GROUP	N.AP.
PRODUCT NAME	PROPYLENE GLYCO USP
WHMIS CLASSIFICATION	NOT CONTROLLED UNDER WHMIS
CHEMICAL FORMULA	CH ₂ CHOHCH ₂ OH
MOLECULAR WEIGHT	76.4
MATERIAL USE	OTHER NON SPECIFIED INDUSTRY. A RAW MATERIAL FOR PAINTS AND POLYESTER AND ALKYD RESINS; A BASIC COMPONENT OF BRAKE FLUIDS; AN INGREDIENT OF DEICING AND ANTIFREEZE FLUIDS; A HEAT TRANSFER MEDIUM; A PLASTICIZER FOR ADHESIVES; CORK AND PAPER PRODUCTS; A RAW MATERIAL FOR RESINOUS PLASTICIZERS.
ALTERNATE NAMES	1,2-PROPANEDIOL; 1,2-DIHDROXYPROPANE; METHYL GLYCOL; METHYLEHTYLENE GLYCOL

SECTION 2: HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	%	T.L.V.	C.A.S. #	LD/50,ROUTE,SPECIE	LC/50,ROUTE,SPECIE
PROPYLENE GLYCOL	100		57-55-6		

NO KNOWN HAZARDOUS INGREDIENTS

SECTION 3: PHYSICAL DATA

PHYSICAL STATE	LIQUID, COLORLESS
ODOUR	SLIGHT
ODOUR THRESHOLD	N.AV.
VAPOUR PRESSURE (MMHG)	0.08 @ 20°C
VAPOUR DENSITY (AIR=1)	2.62
EVAPORATION RATE	N.AV.
BOILING POINT	188°C
FREEZING POINT	-60°C
PH	6
SPECIFIC GRAVITY (WATER=1)	1.0381
SOLUBILITY IN WATER (% W/W)	EASILY SOLUBLE IN COLD WATER, HOT WATER, METHANOL

SECTION 4 : FIRE AND EXPLOSION DATA

FLAMMABILITY **SLIGHT**

IF YES, UNDER WHICH CONDITIONS? MAY BE COMBUSTIBLE AT HIGH TEMPERATURE
EXTINGUISHING MEDIA DRY CHEMICAL, FOAM, WATER OR CARBON DIOXIDE
SPECIAL PROCEDURES IN THE EVENT OF A FIRE, WEAR FUKK PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN THE PRESSURE DEMAND OR OTHER PRESSURE MODE. MOVED EXPOSED CONTAINERS FROM FIRE AREA, IF IT CAN BE DONE WITHOUT RISK. USE WATER TO KEEP FIRE-EXPOSED CONTAINERS COOL.

FLASH POINT(C), METHOD	99°C
AUTO IGNITION TEMPERATURE	400°C
T.D.G. FLAM. CLASS	N.AP.
UPPER FLAMMABLE LIMIT(UFL) (% BY VOL)	12.5%
LOWER FLAMMABLE LIMIT(LFL) (% BY VOL)	2.6%

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HAZARDOUS COMBUSTION PRODUCTS. CARBON OXIDES (CO, CO₂)
EXPLOSION DATA
SENSITIVITY TO STATIC DISCHARGE N.A.V.
SENSITIVITY TO IMPACT N.A.V.
EXPLOSIVE POWER CONTAINERS MAY EXPLODE IN HEAT OR FIRE

SECTION 5 : REACTIVITY DATA

CHEMICAL STABILITY
YES STABLE UNDER ORDINARY CONDITIONS
NO, WHICH CONDITIONS?
COMPATIBILITY WITH OTHER SUBSTANCES:
YES
NO, WHICH ONES? STRONG OXIDIZING AGENTS
REACTIVITY CONDITIONS N.A.V.
HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID HEAT, FLAMES, IGNITION SOURCES AND INCOMPATIBLES
HAZARDOUS PRODUCTS OF DECOMPOSITION CARBON DIOXIDE AND CARBON MONOXIDE MAY FORM WHEN HEATED TO DECOMPOSITION. ALDEHYDES OR LACTIC, PYRUVIC OR ACETIC ACIDS MAY ALSO BE FORMED.

SECTION 6: TOXICOLOGICAL PROPERTIES

GENERAL TOXIC EFFECTS IN CONTACT WITH SKIN MAY CAUSE IRRITATION PROBABLY DUE TO DEHYDRATION, REDENNING, ITCHING AND INFLAMMATION. MAY BE ABSORBED THROUGH THE SKIN. IN SOME CASES BY REPEATED CONTACT MAY RESULT IN ALLERGIC SKIN REACTION AND SEVERE IRRITATION WITH ERYTHEMA, EDEMA AND VESICLES DUE, PROBABLY, TO SWEAT RETENTION. SLIGHTLY IRRITATING. MAY CAUSE SLIGHT IRRITATION, LACRIMATION AND A BURNING SENSATION IN THE EYES.
ROUTE OF ENTRY
SKIN CONTACT MILD IRRITANT AND DEFATTING AGENT, ESPECIALLY ON PROLONGED CONTACT
SKIN ABSORPTION NONE
EYE CONTACT MAY CAUSE SLIGHT TRANSIENT (TEMPORARY) IRRITATION. CORNEAL INJURY IS UNLIKELY.
INHALATION IT IS NOT FREQUENT DUE ITS LOW VOLATILITY, THOUGH PROLONGED EXPOSURES TO SATURATED ATMOSPHERES MAY CAUSE IRRITATION OF RESPIRATORY SYSTEM.
INGESTION SINGLE DOSE ORAL TOXICITY IS LOW. EFFECTS APPEAR MORE SEVERE IN INDIVIDUALS WITH KIDNEY PROBLEMS. MAY CAUSE ADVERSE EFFECTS ON CENTRAL NERVOUS SYSTEM. OTHER EFFECTS MAY INCLUDE EXCITATION, EUPHORIA, HEADACHE, DIZZINESS, DROWSINESS, BLURRED VISION, FATIGUE, TREMORS, CONVULSIONS, LOSS OF CONSCIOUSNESS, COMA AND EVEN DEATH BY RESPIRATORY ARREST. IT REDUCES INTRAOCULAR PRESSURE BY RAISING OSMOTIC PRESSURE OF BLOOD.
EFFECTS OF ACUTE EXPOSURE SEE ABOVE
EFFECTS OF CHRONIC EXPOSURE LACTIC ACIDOSIS, STUPOR AND SEIZURES HAVE BEEN REPORTED FOLLOWING CHRONIC INGESTION.
IRRITANCY OF MATERIAL SEE ABOVE
SENSITIZING CAPABILITY OF MATERIAL N.A.V.
CARCINOGENICITY OF MATERIAL NEGATIVE
REPRODUCTIVE EFFECTS N.A.V.
SYNERGISTIC MATERIALS N.A.V.

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SECTION 7 : PREVENTATIVE MEASURES

GLOVES/TYPE	IMPERVIOUS GLOVES RECOMMENDED.
RESPIRATORY/TYPE	USE NIOSH/MSHA APPROVED EQUIPMENT WHEN AIRBORNE EXPOSURE IS EXCESSIVE.
EYE/TYPE	SAFETY GLASSES OR FACE SHIELD TO AVOID SPLASHES.
FOOTWEAR/TYPE	RUBBER SAFETY BOOTS.
CLOTHING /TYPE	WEAR IMPERVIOUS PROTECTIVE CLOTHING.
OTHER/TYPE	EYE BATH AND SAFETY SHOWER.
ENGINEERING CONTROLS	PROVIDE EXHAUST VENTILATION OR OTHER ENGINEERING CONTROLS TO KEEP THE AIRBORNE CONCENTRATIONS OF VAPORS BELOW THEIR RESPECTIVE THRESHOLD LIMIT VALUE. VAPOR AND AEROSOL = 50PPM; AEROSOL, ONLY = 10MG/M ³
LEAK/SPILL	
SMALL SPILL	DILUTE WITH WATER AND MOP UP, OR ABSORB WITH AN INERT DRY MATERIAL AND PLACE IN AN APPROPRIATE WASTE DISPOSAL CONTAINER. FINISH CLEANING BY SPREADING WATER ON THE CONTAMINATED SURFACE AND DISPOSE OF ACCORDING TO LOCAL AND REGIONAL AUTHORITY REQUIREMENTS.
LARGE SPILL	ABSORB WITH AN INERT MATERIAL AND PUT THE SPILLED MATERIAL IN AN APPROPRIATE WASTE DISPOSAL. FINISH CLEANING BY SPREADING WATER ON THE CONTAMINATED SURFACE AND ALLOW TO EVACUATE THROUGH THE SANITARY SYSTEM.
WASTE DISPOSAL	RECYCLE, IF POSSIBLE. WASTE MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS.
HANDLING PROCEDURES	AVOID BREATHING VAPORS OR SPRAY MISTS. AVOID CONTACT WITH SKIN AND
EQUIPMENT	AND EYES. DO NOT INGEST. AFTER HANDLING, ALWAYS WASH HANDS THOROUGHLY WITH SOAP AND WATER.
STORAGE NEEDS	STORE AWAY FROM ACIDS. KEEP CONTAINER IN A COOL, WELL-VENTILATED AREA AT ROOM TEMPERATURE WITHIN 20-30°C. KEEP CONTAINER TIGHTLY CLOSED.
SPECIAL SHIPPING INSTRUCTIONS	SEE SECTION 1 TDG CLASSIFICATION

SECTION 8 : FIRST AID MEASURES

INHALATION	REMOVE TO FRESH AIR. NOT EXPECTED TO REQUIRE FIRST AID MEASURES.
SKIN CONTACT	REMOVE ANY CONTAMINATED CLOTHING. WASH SKIN WITH SOAP AND WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS.
EYE CONTACT	CHECK FOR AND REMOVE ANY CONTACT LENSES. IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES, LIFTING UPPER AND LOWER EYELIDS OCCASIONALLY. CALL A PHYSICIAN IF IRRITATION PERSISTS.
INGESTION	DO <u>NOT</u> INDUCE VOMITING UNLESS DIRECTED TO DO SO BY MEDICAL PERSONNEL. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. LOOSEN TIGHT CLOTHING SUCH AS A COLLAR, TIE, BELT OR WAISTBAND. GET MEDICAL ATTENTION IF SYMPTOMS APPEAR. HAVE CONSCIOUS PERSON DRINK SEVERAL GLASSES OF WATER OR MILK.
NOTES TO PHYSICIAN	IN CASE OF INGESTION, MONITOR FOR ACIDOSIS AND CENTRAL NERVOUS SYSTEM CHANGES. EXPOSED PERSONS WITH PREVIOUS KIDNEY DYSFUNCTION MAY REQUIRE SPECIAL TREATMENT.

SECTION 9 : PREPARATION INFORMATION

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

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LEGEND:

CAS #	CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER
LFL	LOWER FLAMMABLE LIMIT
MSHA	MINE SAFETY AND HEALTH ADMINISTRATION
N.AP	NOT APPLICABLE
N. AV	NOT AVAILABLE
NIOSH	NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH
TDG	TRANSPORTATION OF DANGEROUS GOODS ACT/REGULATIONS
UFL	UPPER FLAMMABLE LIMIT
WHMIS	WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM

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