

MATERIAL SAFETY DATA SHEET

I - MATERIAL IDENTIFICATION and USE

CHEMICAL NAME: TRIETHYLENE GLYCOL 90/10

EMERGENCY TELEPHONE NUMBER: (613) 996-6666

PRODUCT USE: Coolant

TRADE NAME: TEG 90/10

CHEMICAL IDENTIFICATION: TRIETHYLENE GLYCOL BLENDED IN WATER

MANUFACTURER'S NAME: CHEMSERV PRODUCTS INC.

MANUFACTURER'S ADDRESS: Bay J, 2104 8 Street Nisku, AB T9E 7Y9

MANUFACTURER'S TELEPHONE NUMBER: (780) 955-6333

SUPPLIER'S NAME: CHEMSERV PRODUCTS INC.

SUPPLIER'S ADDRESS: Bay J, 2104 8 Street Nisku, AB T9E 7Y9

SUPPLIER'S TELEPHONE NUMBER: (780) 955-6333

II - HAZARDOUS INGREDIENTS

<u>INGREDIENT</u>	<u>CAS#</u>	<u>%</u>	<u>LD50</u>	<u>LC50</u>
TRIETHYLENE GLYCOL	112-27-6	60-100	Rat(oral): 17g/kg Rabbit(skin): >20 ml/kg	No Data

III - PHYSICAL DATA

pH: ND **SPECIFIC GRAVITY:** 1.125 **FREEZE / POUR POINT (°C):** -4.3 **ODOR THRESHOLD:** ND
ODOR and APPEARANCE: Colorless/ Clear Liquid **BOILING POINT (°C):** ND
EVAPORATION RATE (BUTYL ACETATE = 1): < 1 **VAPOR DENSITY(AIR=1):** > 1 **VAPOR PRESSURE:** ND
COEFFICIENT OF WATER / OIL DISTRIBUTION: ND **PHYSICAL STATE:** LIQUID

IV - FIRE AND EXPLOSION HAZARD

FLASH POINT (°C SETA FLASH CLOSED CUP): >172.2 **AUTO-IGNITION TEMPERATURE (°C):** ND
UPPER EXPLOSION LIMIT (% VOL): ND **LOWER EXPLOSION LIMIT (% VOL):** ND
MEANS OF EXTINCTION: DRY CHEMICAL, CARBON DIOXIDE, WATER FOG, FOAM.
SPECIAL PROCEDURES: DO NOT ENTER ANY CONFINED AREA WITHOUT PROPER PROTECTIVE EQUIPMENT.
HAZARDOUS COMBUSTION PRODUCTS: OXIDES OF CARBON, AND PRODUCTS OF INCOMPLETE COMBUSTION.
EXPLOSION DATA: WHEN MIXED WITH AIR, FLAMMABLE VAPORS CAN EXPLODE IN A CONFINED AREA.
SENSITIVITY TO STATIC DISCHARGE: EXPECTED TO BE SENSITIVE TO STATIC DISCHARGE WHEN VAPORS ARE PRESENT AT THE LOWER AND UPPER EXPLOSIVE LIMITS. GROUND EQUIPMENT BEFORE TRANSFER.

V - REACTIVITY DATA

STABILITY: STABLE **REACTIVITY:** HAZARDOUS POLYMERIZATION WILL NOT OCCUR.
INCOMPATIBLE MATERIALS: STRONG OXIDIZING AGENTS.
HAZARDOUS DECOMPOSITION PRODUCTS: ON COMBUSTION, OXIDES OF CARBON.

VI - TOXICOLOGICAL PROPERTIES

SKIN CONTACT: MAY CAUSE DELAYED SKIN IRRITATION AND BLISTERING. REPEATED OR PROLONGED CONTACT MAY CAUSE DEFATTING AND DERMATITIS.
SKIN ADSORPTION: EXTENSIVE, PROLONGED, OR REPEATED CONTACT MAY RESULT IN SIGNIFICANT ADSORPTION.
EYE CONTACT: VAPORS ARE IRRITATING TO THE EYES. THIS PRODUCT CAUSES IRRITATION, REDNESS AND PAIN.
INHALATION: IRRITATING TO THE NOSE, THROAT, AND RESPIRATORY TRACT. HIGH VAPOR CONCENTRATIONS CAN CAUSE HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA.
INGESTION: HARMFUL OR FATAL IF LIQUID IS ASPIRATED INTO LUNGS. CAUSES IRRITATION, A BURNING SENSATION OF THE MOUTH AND THROAT, AND ABDOMINAL PAIN.
CHRONIC OVER EXPOSURE EFFECTS: MAY CAUSE DEPRESSION, DIZZINESS, NUMBNESS, TREMORS, IMPAIRED MEMORY, HEADACHES AND NAUSEA. KIDNEY AND LIVER DAMAGE MAY RESULT.
EXPOSURE LIMITS: ETHYLENE GLYCOL – ACGIH TLV=200 PPM
IRRITANCY: LIQUID AND VAPOR MAY CAUSE IRRITATION OF THE SKIN, EYES, NOSE, THROAT AND RESPIRATORY SYSTEM.
SENSITIZATION TO MATERIAL: NO INFORMATION.
CARCINOGENICITY, REPRODUCTIVE EFFECTS: THE INGREDIENTS OF THIS PRODUCT ARE NOT CLASSIFIED AS CARCINOGENIC BY ACGIH OR IARC. NO ADVERSE REPRODUCTIVE EFFECTS ARE ANTICIPATED.
TERATOGENICITY, MUTAGENICITY: NO INFORMATION IS AVAILABLE
TOXICOLOGICALLY SYNERGISTIC PRODUCTS: NO INFORMATION.

VII - PREVENTATIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT: CHEMICAL CARTRIDGE RESPIRATOR WITH ORGANIC VAPOR CARTRIDGE FOR UP TO 1000 PPM. FOR EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS, USE A SELF-CONTAINED BREATHING APPARATUS. EYE/FACE PROTECTION: CHEMICAL GOGGLES OR A FACE MASK. SKIN PROTECTION: GLOVES, COVERALLS AND BOOTS, ETC., AS NEEDED TO PREVENT SKIN EXPOSURE.

SPECIFIC ENGINEERING CONTROLS: GENERAL VENTILATION IS NORMALLY ADEQUATE FOR SMALL SCALE USE AT ROOM TEMPERATURE OR BELOW. LOCAL EXHAUST VENTILATION IS NORMALLY NEEDED WITH LARGE-SCALE USE OR AT ELEVATED TEMPERATURES.

LEAK AND SPILL PROCEDURES: PROVIDE ADEQUATE VENTILATION, PROTECTIVE CLOTHING AND RESPIRATORS. REMOVE SOURCES OF HEAT AND FLAME. ABSORB LIQUID ON DRY CLAY, SAND, SAWDUST OR OTHER ABSORBENT MATERIAL.

WASTE DISPOSAL: COMBUSTIBLE WASTES MAY BE BURNED IN AN APPROVED INCINERATION FACILITY. CONSULT LOCAL ENVIRONMENTAL AUTHORITIES BEFORE DISPOSAL.

HANDLING PROCEDURES AND EQUIPMENT : USE MINIMAL QUANTITIES IN DESIGNATED AREAS WITH ADEQUATE VENTILATION AND AWAY FROM OTHER SOURCES OF HEAT OR SPARKS. CONTAINERS SHOULD BE COVERED WHEN NOT IN USE.

STORAGE REQUIREMENTS: STORE IN A TIGHTLY CLOSED CONTAINER IN A COOL AREA SEPARATE FROM WORK AREAS. NO SOURCES OF HEAT, FLAME OR SPARKS SHOULD BE PRESENT IN THE STORAGE AREA.

EMPTY CONTAINERS: THE CONTAINER FOR THIS PRODUCT CAN PRESENT EXPLOSION OF FIRE HAZARDS, EVEN WHEN EMPTIED. **DO NOT** CUT, PUNCTURE OR WELD ON OR NEAR THIS CONTAINER. SINCE THE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUE, FOLLOW LABEL WARNINGS EVEN AFTER THE CONTAINER IS EMPTIED.

VIII - FIRST AID MEASURES

INHALATION: REMOVE SOURCE OF CONTAMINATION OR REMOVE VICTIM TO FRESH AIR. IF BREATHING HAS STOPPED, BEGIN ARTIFICIAL RESPIRATION IMMEDIATELY. OBTAIN MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT: IMMEDIATELY FLUSH THE CONTAMINATED EYE(S) WITH WARM WATER FOR AT LEAST 15 MINUTES. OBTAIN MEDICAL ATTENTION IF IRRITATION PERSISTS.

SKIN CONTACT: FLUSH CONTAMINATED AREA WITH WARM WATER FOR AT LEAST 15 MINUTES. UNDER RUNNING WATER, REMOVE CONTAMINATED CLOTHING, SHOES AND LEATHER GOODS. IF IRRITATION PERSISTS, OBTAIN MEDICAL ATTENTION.

INGESTION: NEVER GIVE ANYTHING BY MOUTH IF VICTIM IS UNCONSCIOUS OR CONVULSING. RINSE MOUTH THOROUGHLY WITH WATER. DO NOT INDUCE VOMITTING. HAVE VICTIM DRINK 300 ML OF WATER TO DILUTE MATERIAL. OBTAIN MEDICAL ATTENTION IMMEDIATELY.

GENERAL : PROVIDE GENERAL SUPPORTIVE MEASURES (COMFORT, WARMTH, REST). CONSULT A DOCTOR FOR ALL EXPOSURES EXCEPT MINOR INSTANCES OF INHALATION OR SKIN CONTACT.

IX - PREPARATION INFORMATION

PREPARED BY: TECHNICAL DEPARTMENT

PHONE NUMBER: (780) 955-6333

DATE PREPARED: JUNE 09, 2006

X - CLASSIFICATIONS

WHMIS : NOT CONTROLLED

TRANSPORTATION OF DANGEROUS GOODS: SHIPPING NAME: NOT REGULATED (NR)

PIN: NR

CLASS: NR

PACKING GROUP: NR

ND: NOT DETERMINED

N.AP.: NOT APPLICABLE

N.AV.: NOT AVAILABLE

REFERENCES: SUPPLIER MATERIAL SAFETY DATA SHEETS