



MURSATT CHEMICALS LIMITED
11 REGALCREST COURT
WOODBIDGE; ONTARIO, CANADA; L4L 8P3
(905)-850-8444

PRODUCT: 4-L-G

CODE: MUR0036

Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER/SUPPLIER..... MURSATT CHEMICALS LIMITED
11 REGALCREST COURT
WOODBIDGE, ONTARIO
CANADA
L4L 8P3
PREPARED BY..... REGULATORY AFFAIRS
PREPARATION DATE..... May26/11
PRODUCT NAME..... 4-L-G
PRODUCT CODE..... MUR0036
CHEMICAL FORMULA..... MIXTURE.
MOLECULAR WEIGHT..... MIXTURE.
CHEMICAL FAMILY..... N.AV.
MATERIAL USE..... N.AV.
EMERGENCY PHONE NO..... CANUTEC (613)-996-6666.

Section 02: HAZARDS IDENTIFICATION

ROUTE OF ENTRY:
SKIN CONTACT..... MAY CAUSE A MILD IRRITATION. EFFECTS MAY VARY DEPENDING ON THE LENGTH OF EXPOSURE, SOLUTION CONCENTRATION, AND FIRST AID MEASURES.
SKIN ABSORPTION..... N.AV.
EYE CONTACT..... MAY CAUSE A MILD IRRITATION. EFFECTS MAY VARY DEPENDING ON THE LENGTH OF EXPOSURE, SOLUTION CONCENTRATION, AND FIRST AID MEASURES.
INHALATION..... MAY CAUSE IRRITATION OF MUCOUS MEMBRANES AND LUNGS.
INGESTION..... INGESTION IS NOT EXPECTED TO BE A PRIMARY ROUTE OF EXPOSURE.
EFFECTS OF ACUTE EXPOSURE..... SEE ABOVE.
EFFECTS OF CHRONIC EXPOSURE..... THE EFFECTS FROM CHRONIC EXPOSURE TO THIS PRODUCT HAVE NOT BEEN FULLY EVALUATED.

Section 03: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	%	Exposure Limit	C.A.S.#	LD/50, Route,Species	LC/50 Route,Species
1,2-ETHANEDIAMINE,N,N,N',N'-TETRAMETHYL, POLYMER WITH 1,1'-OXYBIS (2-CHLOROETHANE)	25-50	SEE SECTION 11	31075-24-8	SEE SECTION 11	SEE SECTION 11

Section 04: FIRST AID MEASURES

EYE CONTACT..... NO EFFECTS EXPECTED. IF IRRITATION DOES OCCUR, FLUSH CONTAMINATED EYE(S) WITH LUKEWARM, GENTLY FLOWING WATER OR 5 MINUTES OR UNTIL THE CHEMICAL IS REMOVED. IF IRRITATION PERSISTS, OBTAIN MEDICAL ADVICE.
SKIN CONTACT..... NO HEALTH EFFECTS EXPECTED. IF IRRITATION DOES OCCUR, FLUSH WITH LUKEWARM, GENTLY FLOWING WATER FOR 5 MINUTES OR UNTIL CHEMICAL IS REMOVED. IF IRRITATION PERSISTS, OBTAIN MEDICAL ADVICE.
INHALATION..... IF SYMPTOMS ARE EXPERIENCED REMOVE SOURCES OF CONTAMINATION OR MOVE VICTIM TO FRESH AIR AND OBTAIN MEDICAL ADVICE.
INGESTION..... IF IRRITATION OR DISCOMFORT OCCUR, OBTAIN MEDICAL ADVICE IMMEDIATELY.
NOTES TO PHYSICIAN..... N.AV.

Section 05: FIRE FIGHTING MEASURES

T.D.G. FLAM. CLASS..... NON FLAMMABLE.
FLAMMABILITY..... NON FLAMMABLE.
IF YES, UNDER WHICH CONDITIONS?..... WILL NOT BURN UNLESS WATER HAS EVAPORATED.
EXTINGUISHING MEDIA..... USE WATER SPRAY TO COOL FIRE EXPOSED SURFACES AND TO PROTECT PERSONNEL. WALER FOG, CARBON DIOXIDE, FOAM OR DRY CHEMICAL MAY BE USED TO EXTINGUISH FIRE.
SPECIAL PROCEDURES..... WEAR NIOSH APPROVED SELF-CONLAINED BREATHING APPARATUS (SUCH AS "SCOTT AIR-PAK") AND FULL PROTECTIVE GEAR. ISOLATE "FUEL" SUPPLY FROM FIRE.
FLASH POINT (C), METHOD..... >100C/212F TAG CLOSED CUP.
AUTO IGNITION TEMPERATURE..... N.AV.
UPPER FLAMMABLE LIMIT (% BY VOL.).... N.AV.
LOWER FLAMMABLE LIMIT (% BY VOL.)... N.AV.
EXPLOSION DATA..... N.AV.
EXPLOSIVE POWER..... N.AV.

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Section 05: FIRE FIGHTING MEASURES

RATE OF BURNING..... N.AV.
 SENSITIVITY TO STATIC DISCHARGE..... NONE KNOWN.
 SENSITIVITY TO IMPACT..... NONE KNOWN.
 HAZARDOUS COMBUSTION PRODUCTS.. CARBON MONOXIDE MAY BE RELEASED ON BURNING.

Section 06: ACCIDENTAL RELEASE MEASURES

LEAK/SPILL..... BEFORE RESPONDING TO A SPILL OR LEAK OF THIS PRODUCT, REVIEW EACH SECTION OF THIS MSDS. FOLLOW THE RECOMMENDATIONS GIVEN IN THE "HANDLING PROCEDURES AND EQUIPMENT" SECTION. CHECK THE "FIRE AND EXPLOSION HAZARDS" SECTION TO DETERMINE IF THE USE OF NON-SPARKING TOOLS IS MERITED. INSURE THAT SPILLED OR LEAKED PRODUCT DOES NOT COME INTO CONTACT WITH MATERIALS LISTED AS INCOMPATIBLE. IF IRRITATING FUMES ARE PRESENT, CONSIDER EVACUATION OF AFFECTED AREAS. INITIALLY MINIMIZE AREA AFFECTED BY THE SPILL OR LEAK. BLOCK ANY POTENTIAL ROUTES TO WATER SYSTEMS. PLACE IN A PROPERLY LABELED CONTAINER FOR LATER DISPOSAL. LARGER SPILLS MAY REQUIRE A VACUUM.

Section 07: HANDLING AND STORAGE

HANDLING PROCEDURES AND EQUIPMENT DO NOT HANDLE UNLESS THE SAFETY PRECAUTIONS HAVE BEEN READ AND UNDERSTOOD. AVOID SKIN AND EYE CONTACT. AVOID INHALATION OF DUST OR VAPOURS. DO NOT PUNCTURE, DRAG OR SLIDE CONTAINERS. DO NOT SMOKE IN ANY CHEMICAL HANDLING OR STORAGE AREA. WASH HANDS BEFORE EATING.
 STORAGE NEEDS..... STORE IN A DRY WELL-VENTILATED LOCATION. PROTECT FROM FREEZING. KEEP CONTAINERS TIGHTLY CLOSED. STORE AWAY FROM INCOMPATIBLE MATERIALS AND IGNITION SOURCES.

Section 08: EXPOSURE CONTROLS AND PERSONAL PROTECTION

GLOVES/ TYPE..... GLOVES.
 RESPIRATORY/TYPE..... IF MISTING CAN OCCUR, A NIOSH APPROVED FULL MASK RESPIRATOR FOR ORGANIC VAPOR IS REQUIRED. THE LOCAL EHS (ENVIRONMENTAL HEALTH AND SAFETY) PROFESSIONAL MUST IDENTIFY AND EVALUATE THE RESPIRATORY HAZARDS IN THE WORKPLACE. BASED ON THIS EVALUATION, THE EHS PROFESSIONAL MUST SELECT THE APPROPRIATE RESPIRATORY TYPE AND/OR FILTER AS REQUIRED.
 EYE/TYPE..... SAFETY GLASSES.
 FOOTWEAR/TYPE..... WEAR CHEMICAL RESISTANT FOOTWEAR.
 CLOTHING/TYPE..... SAFETY PROTECTIVE CLOTHING SUCH AS WORK COVERALLS OR LONG SLEEVE SHIRT AND TROUSERS IS REQUIRED.
 OTHER/TYPE..... AN EMERGENCY SHOWER COMPLETE WITH EYE-WASH FOUNTAIN IS STRONGLY RECOMMENDED.
 ENGINEERING CONTROLS..... GENERAL MECHANICAL VENTILATION SYSTEM IS ADEQUATE. HOWEVER, LOCAL EXHAUST SYSTEM IS PREFERRED TO MAINTAIN AIRBORNE CONCENTRATIONS BELOW THE RECOMMENDED OCCUPATIONAL EXPOSURE LIMITS, WHENEVER MISTING CONDITIONS ARE PRESENT OR THE MATERIAL IS USED IN A CONFINED SPACE.

Section 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE..... CLEAR, PALE BROWN LIQUID.
 ODOUR..... MILD.
 ODOUR THRESHOLD..... NOT DETERMINED.
 VAPOUR PRESSURE (MMHG)..... N.AV.
 VAPOUR DENSITY (AIR=1)..... N.AV.
 BY VOLUME
 BY WEIGHT
 EVAPORATION RATE..... N.AV.
 BOILING POINT..... >100 C.
 FREEZING/MELTING POINT..... N.AV.
 PH..... N.AV.
 SPECIFIC GRAVITY (WATER=1)..... 1.10.
 SOLUBILITY IN WATER (% W/W)..... COMPLETELY SOLUBLE.
 COEFFICIENT OF WATER/OIL DIST..... N.AV.

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Section 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:
 YES..... STABLE UNDER NORMAL CONDITIONS OF USE AND STORAGE. .
 NO, WHICH CONDITIONS?
 CONDITIONS TO AVOID..... CONTACT WITH INCOMPATIBLES.
 COMPATABILITY WITH OTHER
 SUBSTANCES:
 YES
 NO, WHICH ONES?..... ANIONIC POLYMERS.
 REACTIVITY CONDITIONS:..... CONTACT WITH INCOMPATIBLES.
 HAZARDOUS PRODUCTS OF UNKNOWN BUT CARBON MONOXIDE MAY BE RELEASED ON BURNING.
 DECOMPOSITION
 HAZARDOUS POLYMERIZATION..... WILL NOT OCCUR.

Section 11: TOXICOLOGICAL INFORMATION

EXPOSURE LIMIT OF MATERIAL..... N.AV.
 LC 50 OF MATERIAL, SPECIES & ROUTE.. ACUTE INHALATION LC50: 2.9 MG/L (RAT), (4 HRS). FOR
 1,2-ETHANEDIAMINE,N,N,N', N',-TETRAMETHYL, POLYMER WITH 1,1'-OXYBIS
 (2-CHLOROETHANE).
 LD 50 OF MATERIAL, SPECIES & ROUTE.. ACUTE ORAL LD50: 1951 MG/KG (MALE RAT). ACUTE DERMAL LD50: > 2000 MG/KG
 (RABBIT). FOR 1,2-ETHANEDIAMINE,N,N,N', N',-TETRAMETHYL, POLYMER WITH
 1,1'-OXYBIS (2-CHLOROETHANE).
 CARCINOGENICITY OF MATERIAL..... NOT LISTED IN ANY OF OSHA STANDARDS SECTION 1910.1200 SOURCES AS
 CARCINOGENIC.
 REPRODUCTIVE EFFECTS..... NONE KNOWN.
 IRRITANCY OF MATERIAL..... MAY CAUSE A MILD IRRITATION TO THE EYES AND SKIN.
 SENSITIZING CAPABILITY OF MATERIAL. NOT A SENSITIZER.
 SYNERGISTIC MATERIALS..... NONE KNOWN.
 MUTAGENICITY..... NONE KNOWN.
 TERATOGENICITY..... NONE KNOWN.

Section 12: ECOLOGICAL CONSIDERATIONS

ECOLOGICAL INFORMATION..... N.AV.

Section 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL..... DISPOSE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

Section 14: TRANSPORT INFORMATION

TDG CLASSIFICATION..... NOT REGULATED.
 UN NUMBER..... N.AP.
 PACKING GROUP..... N.AP.
 SPECIAL SHIPPING INSTRUCTIONS..... NOT REGULATED.

Section 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION..... REGISTERED PEST CONTROL PRODUCT. EXEMPT FROM WHMIS CLASSIFICATION.
 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

N.AP.=NOT APPLICABLE
 N.AV.=NOT AVAILABLE
 OTHER INFORMATION..... THE DATA IN THIS MSDS RELATES ONLY TO THE SPECIFIC MATERIAL
 DESIGNATED HEREIN AND DOES NOT RELATE TO USE IN COMBINATION WITH
 ANY OTHER MATERIAL OR IN ANY PROCESS. THIS DATA IS OFFERED IN GOOD
 FAITH AS TYPICAL VALUES AND NOT AS PRODUCT SPECIFICATIONS. NO
 WARRANTY, EITHER EXPRESSED OR IMPLIED, IS HEREBY MADE. THE
 RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE
 BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD
 REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE
 INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.