



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

PRODUCT: 4-L-G

CODE: MUR0036

SECTION 01: IDENTIFICATION

PRODUCT CODE..... MUR0036
 PRODUCT IDENTIFIER..... 4-L-G
 OTHER MEANS OF IDENTIFICATION..... N.AV.
 RECOMMENDED USE AND N.AV.
 RESTRICTIONS ON USE
 SUPPLIER IDENTIFIER..... MURSATT CHEMICALS LIMITED
 11 REGALCREST COURT
 WOODBRIDGE, ONTARIO
 CANADA
 L4L 8P3
 EMERGENCY PHONE NO..... CANUTEC (613)-996-6666.

SECTION 02: HAZARD IDENTIFICATION



HAZARD CLASSIFICATION..... ACUTE TOXICITY (ORAL) - CATEGORY 4. ACUTE TOXICITY (INHALATION) —
 CATEGORY 4. EYE IRRITATION - CATEGORY 2B . ACUTE AQUATIC TOXICITY -
 CATEGORY 1. CHRONIC AQUATIC TOXICITY - CATEGORY 1.
 SIGNAL WORD..... WARNING.
 HAZARD STATEMENT..... H302 HARMFUL IF SWALLOWED. H320 CAUSES EYE IRRITATION. H332 HARMFUL IF
 INHALED. H410 VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.
 PRECAUTIONARY STATEMENT..... P264 WASH SKIN THOROUGHLY AFTER HANDLING. P270 DO NO EAT, DRINK OR
 SMOKE WHEN USING THIS PRODUCT. P301+P312+P330 IF SWALLOWED: CALL A
 POISON CENTER OR DOCTOR/PHYSICIAN IF YOU FEEL UNWELL. RINSE MOUTH.
 P305+P351+P338 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL
 MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE
 RINSING. P337+P313 IF EYE IRRITATION PERSISTS: GET MEDICAL
 ADVICE/ATTENTION. P261 AVOID BREATHING
 DUST/FUME/GAS/MIST/VAPOURS/SPRAY. P271 USE ONLY OUTDOORS OR IN A
 WELL-VENTILATED AREA. P304+P340+P312 IF INHALED: REMOVE VICTIM TO
 FRESH AIR AND KEEP COMFORTABLE FOR BREATHING. CALL A POISON CENTER
 OR DOCTOR/PHYSICIAN IF YOU FEEL UNWELL. P501 DISPOSE OF
 CONTENTS/CONTAINER TO APPROPRIATE WASTE SITE OR RECLAIMER IN
 ACCORDANCE WITH LOCAL AND NATIONAL REGULATIONS.
 OTHER HAZARDS..... NONE.

SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS #	WT. %
1,2-ETHANEDIAMINE,N,N,N',N',-TETRAMETHYL, POLYMER WITH 1,1'-OXYBIS (2-CHLOROETHANE)	31075-24-8	25-50

SECTION 04: FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES:
 EYE CONTACT..... IMMEDIATELY FLUSH THE CONTAMINATED EYE(S) WITH LUKEWARM, GENTLY
 FLOWING WATER FOR AT LEAST 15 - 20 MINUTES OR UNTIL THE CHEMICAL IS
 REMOVED, WHILE HOLDING THE EYELID(S) OPEN. TAKE CARE NOT TO RINSE
 CONTAMINATED WATER INTO UNAFFECTED EYE OR ONTO THE FACE. IF
 IRRITATION PERSISTS, REPEAT FLUSHING. OBTAIN MEDICAL ATTENTION
 IMMEDIATELY.
 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. .

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SECTION 04: FIRST AID MEASURES

INHALATION..... USE PROPER RESPIRATORY PROTECTION TO IMMEDIATELY MOVE EXPOSED INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, OXYGEN MAY BE BENEFICIAL IF ADMINISTERED BY TRAINED PERSONNEL, PREFERABLY ON A DOCTOR'S ADVICE. IF BREATHING IS STOPPED, TRAINED PERSONNEL SHOULD BEGIN ARTIFICIAL RESPIRATION (AR) OR, IF THE HEART HAS STOPPED, CARDIOPULMONARY RESUSCITATION (CPR) IMMEDIATELY. AVOID MOUTH TO MOUTH CONTACT BY USING MOUTH GUARDS OR SHIELDS. IMMEDIATELY TRANSPORT VICTIM TO AN EMERGENCY CARE FACILITY.

INGESTION..... IF IRRITATION OR DISCOMFORT OCCUR, OBTAIN MEDICAL ADVICE IMMEDIATELY.

MOST IMPORTANT SYMPTOMS AND SEE SECTION 11.

EFFECTS, ACUTE OR DELAYED:
INDICATION OF ANY IMMEDIATE MEDICAL N.A.V.
ATTENTION AND SPECIAL TREATMENT
NEEDED

SECTION 05: FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA..... WATER FOG, CARBON DIOXIDE, FOAM OR DRY CHEMICAL MAY BE USED TO EXTINGUISH FIRE.

UNSUITABLE EXTINGUISHING MEDIA..... N.A.V.

SPECIAL HAZARDS ARISING FROM THE PRODUCT: NOT FLAMMABLE. SEE HAZARDOUS COMBUSTION PRODUCTS.

HAZARDOUS COMBUSTION PRODUCTS. OXIDES OF CARBON, OXIDES OF NITROGEN, HALOGENATED COMPOUNDS.

SPECIAL PROTECTIVE EQUIPMENT AND WEAR NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS (SUCH AS PRECAUTIONS FOR FIRE-FIGHTERS: "SCOTT AIR-PAK"), AND FULL PROTECTIVE GEAR. ISOLATE "FUEL" SUPPLY FROM FIRE. USE WATER SPRAY TO COOL FIRE EXPOSED SURFACES AND TO PROTECT PERSONNEL.

SECTION 06: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS..... AVOID CONTACT WITH SKIN, EYES OR CLOTHING. USE PERSONAL PROTECTIVE EQUIPMENT AS REQUIRED. ENSURE ADEQUATE VENTILATION, ESPECIALLY IN CONFINED AREAS. AVOID BREATHING VAPORS, MIST OR GAS. WEAR APPROPRIATE PROTECTIVE EQUIPMENT.

ENVIRONMENTAL PRECAUTIONS..... DO NOT ALLOW TO ENTER DRAINS, SEWERS OR WATERCOURSES.

METHODS AND MATERIALS FOR COLLECT INTO A SUITABLE CONTAINER FOR DISPOSAL. IF IRRITATING FUMES CONTAINMENT AND CLEANING UP ARE PRESENT, CONSIDER EVACUATION OF AFFECTED AREAS. LARGER SPILLS MAY REQUIRE A VACUUM.

SECTION 07: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:..... 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.

CONDITIONS FOR SAFE STORAGE, STORE IN A DRY WELL-VENTILATED LOCATION. PROTECT FROM FREEZING. KEEP INCLUDING ANY INCOMPATIBILITIES: CONTAINERS TIGHTLY CLOSED. STORE AWAY FROM INCOMPATIBLE MATERIALS AND IGNITION SOURCES.

SECTION 08: EXPOSURE CONTROLS AND PERSONAL PROTECTION

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL	NIOSH
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1,2-ETHANEDIAMINE,N,N,N',N'-TETRAMETHYL, POLYMER WITH 1,1'-OXYBIS (2-CHLOROETHANE)	N.A.V.	N.A.V.	N.A.V.	N.A.V.	N.A.V.	N.A.V.
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APPROPRIATE 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.

INDIVIDUAL PROTECTION MEASURE
SUCH AS PERSONAL PROTECTIVE
EQUIPMENTS:

HAND PROTECTION..... GLOVES.

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SECTION 08: EXPOSURE CONTROLS AND PERSONAL PROTECTION

RESPIRATORY PROTECTION.....	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 PROTECTION.....	CHEMICAL SAFETY GOGGLES.
PROTECTIVE CLOTHING.....	SAFETY PROTECTIVE CLOTHING SUCH AS WORK COVERALLS OR LONG SLEEVE SHIRT AND TROUSERS IS REQUIRED.
PROTECTIVE FOOTWEAR.....	WEAR CHEMICAL RESISTANT FOOTWEAR.
OTHER.....	AN EMERGENCY SHOWER COMPLETE WITH EYE-WASH FOUNTAIN IS STRONGLY RECOMMENDED.
HYGIENIC PRACTICES.....	USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, OR SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE CONTAMINATED CLOTHING AND WASH THOROUGHLY BEFORE REUSE.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE.....	LIQUID.
COLOR.....	CLEAR, AMBER TO DARK BROWN.
ODOUR.....	MILD.
ODOUR THRESHOLD.....	N.A.V.
PH.....	7.0.
FREEZING/MELTING POINT.....	N.A.V.
BOILING POINT.....	>100 C.
FLASH POINT (C), METHOD.....	>100C/212F TAG CLOSED CUP.
EVAPORATION RATE.....	N.A.V.
FLAMMABILITY (SOLIDS AND GASES).....	N.A.V.
UPPER FLAMMABLE LIMIT (% BY VOL.)...	N.A.V.
LOWER FLAMMABLE LIMIT (% BY VOL.)...	N.A.V.
VAPOUR PRESSURE (MMHG).....	N.A.P.
VAPOUR DENSITY (AIR=1).....	N.A.V.
RELATIVE DENSITY.....	1.10.
SOLUBILITY IN WATER (% W/W).....	COMPLETELY SOLUBLE.
COEFFICIENT OF WATER/OIL DIST.....	N.A.V.
AUTO IGNITION TEMPERATURE.....	N.A.V.
DECOMPOSITION TEMPERATURE.....	N.A.V.
VISCOSITY.....	N.A.V.

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:.....	CONTACT WITH INCOMPATIBLES.
CHEMICAL STABILITY:.....	STABLE UNDER NORMAL CONDITIONS OF HANDLING AND STORAGE.
POSSIBILITY OF HAZARDOUS	PRODUCT IS STABLE UNDER NORMAL CONDITIONS OF STORAGE AND HANDLING.
REACTIONS:	
CONDITIONS TO AVOID.....	CONTACT WITH ICOMPATIBLES.
INCOMPATIBLE MATERIALS:.....	ANIONIC POLYMERS.
HAZARDOUS PRODUCTS OF	SEE HAZARDOUS COMBUSTION PRODUCTS.
DECOMPOSITION	

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
1,2-ETHANEDIAMINE,N,N,N', N',-TETRAMETHYL, POLYMER WITH 1,1'-OXYBIS (2-CHLOROETHANE)	N.A.V.	1850 MG/KG (ORAL, RAT)
INFORMATION ON LIKELY ROUTES 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.A.V.	
EYE CONTACT.....	IRRITANT. EFFECTS MAY VARY DEPENDING ON THE LENGTH OF EXPOSURE, SOLUTION CONCENTRATION, AND FIRST AID MEASURES.	
INHALATION.....	HARMFUL IF INHALED.	
INGESTION.....	INGESTION IS NOT EXPECTED TO BE A PRIMARY ROUTE OF EXPOSURE. MAY BE HARMFUL IF SWALLOWED.	
EFFECTS OF ACUTE EXPOSURE.....	SEE ABOVE.	
EFFECTS OF CHRONIC EXPOSURE.....	THE EFFECTS FROM CHRONIC EXPOSURE TO THIS PRODUCT HAVE NOT BEEN FULLY EVALUATED.	

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SECTION 11: TOXICOLOGICAL INFORMATIONSIGNS AND SYMPTOMS OF
OVEREXPOSURE

CARCINOGENICITY OF MATERIAL..... NOT LISTED IN ANY OF OSHA STANDARDS SECTION 1910.1200 SOURCES AS CARCINOGENIC.

TERATOGENICITY..... NONE KNOWN.

MUTAGENICITY..... NONE KNOWN.

REPRODUCTIVE EFFECTS..... NONE KNOWN.

SENSITIZING CAPABILITY OF MATERIAL..... NOT A SENSITIZER.

SYNERGISTIC MATERIALS..... NONE KNOWN.

LD 50 OF MATERIAL, SPECIES & ROUTE. 1951 MG/KG (ORAL, RAT); > 2000 MG/KG (DERMAL, RABBIT).

LC 50 OF MATERIAL, SPECIES & ROUTE. 2.9 MG/L 4H (INH, RAT).

SECTION 12: ECOLOGICAL CONSIDERATIONS

ECOTOXICITY..... N.AV.

PERSISTENCE AND DEGRADATION..... N.AV.

BIOACCUMULATIVE POTENTIAL..... N.AV.

MOBILITY IN SOIL..... N.AV.

OTHER ADVERSE EFFECTS..... N.AV.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS:..... DISPOSE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

SECTION 14: TRANSPORT INFORMATION

UN NUMBER..... N.AP.

PROPER SHIPPING NAME..... N.AP.

TDG CLASSIFICATION..... NOT REGULATED.

PACKING GROUP..... N.AP.

ENVIRONMENTAL HAZARDS ACCORDING TO THE INTERNATIONAL MARITIME DANGEROUS GOODS CODE AND THE UNITED NATIONS MODEL REGULATIONS: N.AV.

SPECIAL PRECAUTIONS IN CONNECTION WITH TRANSPORT OR CONVEYANCE EITHER WITHIN OR OUTSIDE THE PREMISES:

SECTION 15: REGULATORY INFORMATION

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS SPECIFIC TO THE PRODUCT: N.AV.

SECTION 16: OTHER INFORMATION

N.AV.=NOT AVAILABLE
N.AP.=NOT APPLICABLE

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.

PREPARED BY..... REGULATORY AFFAIRS

PREPARATION DATE..... APR 18/2017