



MATERIAL SAFETY DATA SHEET

LIQUID CHISEL

SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER'S NAME: ROCHESTER MIDLAND CORPORATION
 MANUFACTURERS ADDRESS: 155 PARAGON DRIVE, ROCHESTER, NY 14624, USA
 EMERGENCY PHONE NUMBER: INFOTRAC 1-800-535-5053
 SUPPLIER IDENTIFIER: ROCHESTER MIDLAND LIMITED
 SUPPLIER'S ADDRESS: 143 MILLS ROAD, ONTARIO
 SUPPLIER EMERGENCY PHONE NUMBER: CANUTEC (613) 996-6666
 PRODUCT NAME: LIQUID CHISEL
 PRODUCT USE: HIGH VISCOSITY CAUSTIC DEGREASER
 WHMIS CATEGORY: E
 PREPARED BY: ROCHESTER MIDLAND LIMITED.
 PHONE NUMBER OF PREPARER: (905) 847-3000
 DATE PREPARED: SEPTEMBER 23, 2014



SECTION 02: COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	%	CAS#	EXPOSURE LEVELS	LD (50), ROUTE, SPECIES	LC(50), ROUTE, SPECIES
DIETHYLENE GLYCOL BUTYL ETHER	1-5	112-34-5	NOT AVAILABLE	ORAL 3305 mg /Kg (RAT) DERMAL 2700 mg/ Kg (RABBIT)	NOT AVAILABLE
PROPYLENE GLYCOL	0.5-1.5	57-55-6	AIHA WEEL 50 ppm TOTAL 10 mg/ m ³ AEROSOL ONLY	ORAL >20000 mg/ Kg (RAT) DERMAL 20800 mg/ Kg (RABBIT)	AEROSOL 317.042 mg/ L 2 HOUR EXPOSURE NO DEATHS (RABBIT)
POTASSIUM HYDROXIDE	10-30	1310-58-3	ACGIH TLV-TWA 2 mg/ m ³ (CEILING) OSHA PEL 2 mg/ m ³ NIOSH REL-TWA 2 mg/ m ³ (CEILING)	ORAL 214-365 mg/ Kg (RAT) DERMAL 1260 mg/ Kg (RABBIT)	NOT AVAILABLE

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SECTION 03: HAZARDS IDENTIFICATION

POTENTIAL ACUTE HEALTH EFFECTS:

ROUTE OF ENTRY: EYES, SKIN, INHALATION, INGESTION

SKIN CONTACT: CORROSIVE : MAY CAUSE IRRITATION AND SEVERE BURNS WHICH MAY NOT BE IMMEDIATELY VISIBLE OR PAINFUL. SEVERITY OF BURNS IS DEPENDENT ON THE CONCENTRATION OF PRODUCT AND EXPOSURE DURATION.

SKIN ABSORPTION: GLYCOL ETHER COMPONENT CAN BE ABSORBED THROUGH THE SKIN WITH WIDESPREAD EXPOSURE CAUSING CENTRAL NERVOUS EFFECTS. NOT EXPECTED WHEN USED AS DIRECTED.

EYE: MAY CAUSE SEVERE BURNS, PERMANENT EYE DAMAGE EVEN BLINDNESS.

INHALATION: INHALATION OF SPRAY MISTS MAY CAUSE IRRITATION, POSSIBLE TISSUE DAMAGE TO MUCOUS MEMBRANES OF THE NOSE, THROAT AND ESOPHAGUS. DUE TO IT CORROSIVE NATURE, POTASSIUM HYDROXIDE COMPONENT AEROSOLS COULD CAUSE PULMONARY EDEMA. EFFECTS MAY BE DELAYED UP TO 48 HOURS AFTER EXPOSURE. EARLY SYMPTOMS OF PULMONARY EDEMA INCLUDE SHORTNESS OF BREATH AND TIGHTNESS IN THE CHEST. NOT EXPECTED UNDER NORMAL USE DUE TO VISCOSITY OF PRODUCT.

INGESTION: CORROSIVE: MAY BE FATAL IF SWALLOWED. WILL CAUSE SEVERE BURNS TO MUCOUS MEMBRANES OF MOUTH, THROAT AND DIGESTIVE TRACT. ASPIRATION OF VOMITED CONTENTS MAY CAUSE CHEMICAL PNEUMONITIS.

ACUTE OVER-EXPOSURE
EFFECTS: AS ABOVE. ADVERSE OVEREXPOSURE TO GLYCOL ETHER COMPONENT CAN CAUSE SEVERE KIDNEY EFFECTS, RED BLOOD HEMOLYSIS, LIVER DAMAGE AND CNS DEPRESSION

CHRONIC OVER EXPOSURE
EFFECTS: DERMATITIS. LONG TERM OVER EXPOSURE TO THE GLYCOL ETHER COMPONENT THROUGH INGESTION OR SKIN ABSORPTION MAY CAUSE LIVER, KIDNEY, SPLEEN AND BLOOD EFFECTS. NOT A LIKELY OCCURRENCE UNDER WHEN USED AS DIRECTED.

SECTION 04: FIRST AID MEASURES

EYES: FLUSH EYES WITH ABUNDANT WATER FOR AT LEAST 20 MINUTES WHILE HOLDING EYELIDS OPEN TO ENSURE COMPLETE IRRIGATION OF THE ENTIRE EYE CAVITY. **GET IMMEDIATE MEDICAL ATTENTION.**

SKIN: WASH SKIN WITH SOAP AND WATER FOR AT LEAST 20 MINUTES UNTIL "SLIPPERY" FEELING IS GONE. REMOVE CONTAMINATED CLOTHING. GET MEDICAL ATTENTION.

INHALATION: REMOVE VICTIM TO FRESH AIR. ASSIST BREATHING AS NEEDED. IF SYMPTOMS PERSIST, GET MEDICAL ATTENTION.

INGESTION: **DO NOT INDUCE VOMITING.** IF VICTIM CONSCIOUS, GIVE 1 - 2 GLASSES OF WATER TO DILUTE STOMACH CONTENTS. **GET IMMEDIATE MEDICAL ATTENTION.** NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

SECTION 05: FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD OF DETERMINATION: NONE. TCC

UPPER EXPLOSION LIMIT (% BY VOLUME): NOT AVAILABLE

LOWER EXPLOSION LIMIT (% BY VOLUME): NOT AVAILABLE

AUTO-IGNITION TEMPERATURE: NOT AVAILABLE

FLAMMABILITY CLASSIFICATION: NON-FLAMMABLE LIQUID

CONDITIONS OF FLAMMABILITY: NONE.

MEANS OF EXTINCTION: AS FOR SURROUNDING FIRE.

SPECIAL FIRE FIGHTING PROCEDURES: FIREFIGHTERS SHOULD WEAR FULL PROTECTIVE EQUIPMENT AND USE APPROVED SELF CONTAINED BREATHING APPARATUS. USE WATER SPRAY TO COOL FIRE EXPOSED CONTAINERS TO PREVENT PRESSURE BUILDUP AND POSSIBLE RUPTURE. DO NOT SPATTER OR SPLASH PRODUCT. DIKE TO CONTAIN WATER USED IN FIGHTING FIRE. DO NOT ALLOW THIS WATER INTO OPEN WATERWAYS OR SEWERS

HAZARDOUS COMBUSTION PRODUCTS: OXIDES OF CARBON AND NITROGEN.

EXPLOSION DATA: CONTACT WITH " SOFT" METALS AS ALUMINIUM, ZINC OR GALVANIZED METALS CAN GENERATE HYDROGEN GAS. THIS GAS IS FLAMMABLE AND/OR EXPLOSIVE IN THE PRESENCE OF AN IGNITION SOURCE. BRIEF INCIDENTAL CONTACT SUCH AS OVER SPRAY IS NOT EXPECTED TO CAUSE AN EXPLOSION HAZARD.

SENSITIVITY TO STATIC DISCHARGE: NOT SENSITIVE.

SENSITIVITY TO MECHANICAL IMPACT : NOT SENSITIVE

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SECTION 06: ACCIDENTAL RELEASE MEASURES

LEAK AND SPILL

PROCEDURES: CORROSIVE PRODUCT- HANDLE WITH CARE. CLEANUP PERSONNEL MUST USE FULL PROTECTIVE EQUIPMENT. REMOVE UNPROTECTED PERSONNEL AWAY FROM SPILL AREA. VENTILATE AREA. CAUTION: SPILL AREA MAY BE SLIPPERY.

SMALL SPILLS: MOP UP, AND FLUSH AREA WITH WATER.

LARGE SPILLS: DIKE SPILL. DO NOT ALLOW SPILL TO ENTER OPEN WATERWAYS OR SEWERS. RECLAIM ALL MATERIAL POSSIBLE. ABSORB REMAINDER WITH INERT MATERIAL AND PLACE IN SUITABLE CONTAINERS FOR NEUTRALIZATION AND DISPOSAL. ONLY TRAINED PERSONNEL SHOULD DILUTE AND NEUTRALIZE RESIDUE WITH DILUTED ACID. FLUSH AREA WITH WATER.

SECTION 07: HANDLING AND STORAGE

HANDLING PROCEDURES

AND EQUIPMENT: CORROSIVE PRODUCT- HANDLE WITH CARE AVOID CONTACT WITH EYES, SKIN OR CLOTHING. WASH SKIN THOROUGHLY AFTER HANDLING. DO NOT BREATHE MISTS/ SPRAYS. REMOVE CONTAMINATED CLOTHING AND LAUNDRER BEFORE RE-USE KEEP CONTAINER CLOSED WHEN NOT IN USE. MIX ONLY WITH WATER; ALWAYS ADD PRODUCT TO WATER: NEVER WATER TO PRODUCT-EXTREME THERMAL REACTION MAY BE GENERATED. READ AND FOLLOW LABEL INSTRUCTIONS. DO NOT CONTAMINATE FOOD, WATER OR FEED DURING USE OR STORAGE OF THIS PRODUCT.

STORAGE

REQUIREMENTS: KEEP CONTAINER CLOSED WHEN NOT IN USE. STORE INDOORS, IN A COOL WELL-VENTILATED AREA AWAY FROM INCOMPATIBLE MATERIALS. KEEP FROM FREEZING. KEEP OUT OF REACH OF CHILDREN. DO NOT REUSE CONTAINER.

SECTION 08: EXPOSURE CONTROLS/ PERSONAL PROTECTION

GENERAL ADVICE: THESE RECOMMENDATIONS PROVIDE GENERAL GUIDANCE FOR HANDLING THIS PRODUCT. PERSONAL PROTECTIVE EQUIPMENT SHOULD BE SELECTED FOR INDIVIDUAL APPLICATIONS AND SHOULD CONSIDER FACTORS WHICH AFFECT EXPOSURE POTENTIAL, SUCH AS HANDLING PRACTICES, CHEMICAL CONCENTRATIONS AND VENTILATION. IT IS ULTIMATELY THE RESPONSIBILITY OF THE EMPLOYER TO FOLLOW REGULATORY GUIDELINES ESTABLISHED BY LOCAL AUTHORITIES

EYE PROTECTION: WEAR CHEMICAL SPLASH GOGGLES AND FACE SHIELD TO PROVIDE FULL EYE PROTECTION.

RESPIRATORY PROTECTION: NONE NORMALLY REQUIRED. USE NIOSH APPROVED RESPIRATOR IF EXPOSURE LIMITS ARE EXCEEDED OR IRRITATION OCCURS.

GLOVES: WEAR RUBBER OR NEOPRENE GLOVES OR GAUNTLETS.

OTHER PROTECTIVE

EQUIPMENT: AS NEEDED TO PREVENT ALL CONTACT WITH PRODUCT.

SPECIFIC ENGINEERING

CONTROLS: NONE NORMALLY REQUIRED. USE GENERAL MECHANICAL AND / OR LOCAL EXHAUST IF TLV EXCEEDED. USE CORROSION RESISTANT EQUIPMENT.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	LIQUID
ODOUR AND APPEARANCE:	DARK BROWN, THICK, VISCOUS, LIQUID; MILD ODOUR
ODOUR THRESHOLD:	NOT AVAILABLE
SPECIFIC GRAVITY:	1.234-1.254
VAPOUR PRESSURE :	AS WATER
VAPOUR DENSITY (AIR=1):	AS WATER
VOC CONTENT (%):	7.15 (ARB 310)
EVAPORATION RATE;	AS WATER
BOILING POINT;	100° C (212 ° F)
PH:	14
FREEZING POINT:	NOT AVAILABLE
DENSITY (g/ ml):	1.234-1.254
COEFFICIENT OF WATER/OIL DISTRIBUTION:	COMPLETELY WATER SOLUBLE

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: STABLE WHEN USED AND STORED AS DIRECTED.

INCOMPATIBLE MATERIALS: AVOID CONTACT WITH ACIDS; MAY CAUSE VIOLENT REACTION. AVOID CONTACT WITH SOFT METALS AS PITTING AND SURFACE DETERIORATION MAY OCCUR.

CONDITIONS OF REACTIVITY: ALWAYS ADD PRODUCT TO WATER: NEVER WATER TO PRODUCT AS EXTREME THERMAL REACTION MAY BE GENERATED.

HAZARDOUS DECOMPOSITION

PRODUCTS: OXIDES OF CARBON AND NITROGEN.

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SECTION 11: TOXICOLOGICAL INFORMATION

IRRITANCY OF PRODUCT: CORROSIVE PRODUCT; SEVERE IRRITANT

SENSITIZATION TO

MATERIAL: PROPYLENE GLYCOL IS NOT AN OCCUPATIONAL SKIN SENSITIZER. ALTHOUGH RARE, PROPYLENE GLYCOL COMPONENT MAY CAUSE AN ALLERGIC SKIN REACTION IN SENSITIVE INDIVIDUALS. GLYCOL ETHER COMPONENT DID NOT CAUSE ALLERGIC SKIN REACTIONS WHEN TESTED IN GUINEA PIGS.

CARCINOGENICITY: NO KNOWN CARCINOGENS LISTED BY OSHA, IARC OR NTP.

REPRODUCTIVE EFFECTS: NO ADVERSE REPRODUCTIVE EFFECTS ANTICIPATED FOR GLYCOL ETHER COMPONENT OR POTASSIUM HYDROXIDE COMPONENTS.

TERATOGENICITY: NO ADVERSE TERATOGENIC EFFECTS ANTICIPATED FOR GLYCOL ETHER, POTASSIUM HYDROXIDE OR PROPYLENE GLYCOL COMPONENTS

MUTAGENICITY: IN VITRO INFORMATION SUGGESTS THAT POTASSIUM HYDROXIDE COMPONENT IS NOT MUTAGENIC. TESTS ON GLYCOL ETHER COMPONENT USING BACTERIA AND CULTURED MAMMALIAN CELLS HAVE BEEN NEGATIVE FOR MUTAGENIC EFFECTS. POSITIVE AND NEGATIVE MUTAGENIC EFFECTS WERE OBSERVED IN CULTURED MAMMALIAN CELLS FOR PROPYLENE GLYCOL COMPONENT. NEGATIVE RESULTS WERE OBTAINED IN CULTURED HUMAN CELLS, BACTERIA AND YEASTS FOR PROPYLENE GLYCOL COMPONENT.

TOXICOLOGICALLY SYNERGISTIC

PRODUCTS: GLYCOL ETHER COMPONENT MAY ENHANCE THE TOXICITY OF SOME CHLORINATED HYDROCARBONS, DITHIOCARBAMATES OR DIMETHYLNITROSAMINES.

SECTION 12: ECOLOGICAL INFORMATION

THERE IS NO ECOLOGICAL INFORMATION AVAILABLE FOR PRODUCT. ECOTOXICOLOGICAL INFORMATION TO FOLLOW IS BASED LARGELY OR COMPLETELY ON INFORMATION FOR COMPONENTS.

AQUATIC TOXICITY:

FISH SPECIES DATA:

GLYCOL ETHER LC50, 96 HR, BLUEGILL SUNFISH: 1300 mg/ L
GLYCOL ETHER LC50, 48 HR, GOLDEN ORFE: 2250 mg/ L
GLYCOL ETHER LC 50, 24 HR, GOLDFISH: 2700 mg/ L
POTASSIUM HYDROXIDE LC50 (24 HR) MOSQUITO FISH: 80.0 mg/L
POTASSIUM HYDROXIDE LC 50, 96 HR, FATHEAD MINNOW: 179 mg/ L
PROPYLENE GLYCOL, LC 50, FATHEAD MINNOW: 46500-54900 mg/ L
PROPYLENE GLYCOL, LC 50, FATHEAD MINNOW: 51400 mg/ L
PROPYLENE GLYCOL, LC 50, SHEEPHEAD MINNOW: 23800 mg/ L
PROPYLENE GLYCOL, LC 50, 24 HR, GOLDFISH:> 5000 mg/ L
PROPYLENE GLYCOL, LC 50, GUPPY:>10000 mg/ L
PROPYLENE GLYCOL, LC 50, 48 HR, GUPPY:>1000 mg/ L
PROPYLENE GLYCOL, LC 50, 96 HR, RAINBOW TROUT: 44000 mg/ L
PROPYLENE GLYCOL, LC 50, 96 HR, RAINBOW TROUT: 51,600 mg/ L
PROPYLENE GLYCOL, LC 50, 96 HR, RAINBOW TROUT: 40,613 mg/ L

INVERTEBRATES:

POTASSIUM HYDROXIDE, EC 50, 48 HR, WATER FLEA: 60 mg/ L
GLYCOL ETHER LC 50, 24 HR, DAPHNIA MAGNA: 2850 mg/L
GLYCOL ETHER LC 50, 48 HR, DAPHNIA MAGNA: >100 mg/L
PROPYLENE GLYCOL, EC 50, 48 HR, DAPHNIA MAGNA: 4850-34,400 mg/L
PROPYLENE GLYCOL, EC 50, 48 HR, DAPHNIA MAGNA: >43500 mg/L
PROPYLENE GLYCOL, LC 50, 96 HR, SALTWATER MYSID: 18,800 mg/L
PROPYLENE GLYCOL, LC 50, 96 HR, WATER FLEA: 18,340 mg/L

MICRO-ORGANISMS:

PROPYLENE GLYCOL, EC 50, 30 MIN, PHYTOBACTERIUM PHOSPHOREUM: 710 mg/ L
PROPYLENE GLYCOL, EC 50, OECD 209 TEST, ACTIVATED SLUDGE RESPIRATION INHIBITION, 3 HR:>1000mg/ L
GLYCOL ETHER, LC50, BACTERIA, 255mg/L

(GROWTH INHIBITION) PLANTS: GLYCOL ETHER EC 50, SCENEDESMUS SUBSPICATUS: 100 mg/ L

POTASSIUM HYDROXIDE, EC 50, 96 HR, GREEN ALGAE: 61 mg/ L

PROPYLENE GLYCOL, EC 50, GREEN ALGAE: 19000 mg/ L

PROPYLENE GLYCOL, EC 50, SELENASTRUM CAPRICORNUTUM: 19000 mg/ L

GLYCOL ETHER AND PROPYLENE GLYCOL COMPONENTS ARE PRACTICALLY NON-TOXIC TO AQUATIC ORGANISMS. TOXICITY OF POTASSIUM HYDROXIDE COMPONENT IS PRIMARILY ASSOCIATED WITH PH. AQUATIC ORGANISMS BECOME INCREASING STRESSED AS PH EXCEEDS 9, WITH MANY ORGANISMS BEING INTOLERANT OF PH LEVELS IN EXCESS OF 10.

BIODEGRADABILITY: POTASSIUM HYDROXIDE COMPONENT IS AN INORGANIC CHEMICAL AND IS NOT AMENABLE TO BIODEGRADATION. IT HAS NO BOD. GLYCOL ETHER COMPONENT IS EXPECTED TO BE READILY BIODEGRADABLE. GLYCOL ETHER COMPONENT: 89-93%, 28 DAY, OECD 301C TEST; 100% 28 DAY, OECD 302B TEST WHEN RELEASED INTO SOIL OR WATER PROPYLENE GLYCOL COMPONENT IS READILY BIODEGRADABLE. BOD 5 DAYS: 69%; BOD 10 DAYS: 70%;

MOBILITY: WHEN RELEASED INTO THE SOIL, PROPYLENE GLYCOL COMPONENT IS EXPECTED TO LEACH INTO GROUNDWATER.

PERSISTENCE: NOT AVAILABLE

BIOACCUMULATIVE: POTASSIUM HYDROXIDE AND GLYCOL ETHER COMPONENTS DO NOT BIOACCUMULATE . PROPYLENE GLYCOL BIOCONCENTRATION LEVEL IS LOW; BCF <100.

CHEMICAL FATE INFORMATION: NOT AVAILABLE

OTHER INFORMATION: WHEN RELEASED TO THE AIR, PROPYLENE GLYCOL COMPONENT IS DEGRADED BY REACTING WITH PHOTOCHEMICALLY PRODUCED HYDROXYL RADICALS. HALF LIFE IS ESTIMATED TO BE 32 HR. PROPYLENE GLYCOL COMPONENT CAN BE REMOVED BY RAINFALL.

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SECTION 13: DISPOSAL CONSIDERATIONS

IN ACCORDANCE WITH MUNICIPAL, PROVINCIAL AND FEDERAL REGULATIONS.

SECTION 14: TRANSPORT INFORMATION

TDG: UN 1814
POTASSIUM HYDROXIDE, SOLUTION
8
PACKING GROUP II
ADDITIONAL INFORMATION: NOT AVAILABLE
MARINE POLLUTANT: NO

SECTION 15: REGULATORY INFORMATION:

DSL STATUS: LISTED
HMIS CLASSIFICATION (H, F, R, PE): 3,0,1,C
WHMIS CLASSIFICATION: E

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR (CONTROLLED PRODUCTS REGULATIONS) AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

SECTION 16: OTHER INFORMATION

DISCLAIMER: THIS INFORMATION WAS COMPILED FROM CURRENT, RELIABLE SOURCES AND IS BELIEVED TO BE CORRECT. AS DATA AND/ OR REGULATIONS CHANGE, AND CONDITIONS OF USE ARE BEYOND OUR CONTROL, NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE AS TO COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.