MATERIAL SAFETY DATA SHEET

LA 175 MT

SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER'S NAME:	ROCHESTER MIDLAND LIMITED
MANUFACTURERS ADDRESS:	851 PROGRESS COURT, OAKVILLE, ONTARIO
EMERGENCY PHONE NUMBER:	CANUTEC (613) 996-6666
SUPPLIER IDENTIFIER:	NOT AVAILABLE
SUPPLIER'S ADDRESS:	NOT AVAILABLE
SUPPLIER EMERGENCY PHONE NUMBER:	NOT AVAILABLE
PRODUCT NAME:	LA 175 MT
PRODUCT USE:	LIQUID ALKALINE CLEANER
WHMIS CATEGORY:	E
PREPARED BY:	ROCHESTER MIDLAND LIMITED.
PHONE NUMBER OF PREPARER:	(905) 847-3000
DATE PREPARED:	AUGUST 1, 2013

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 4500-7300 mg /Kg (RAT) DERMAL 2700-4120 mg/ Kg (RABBIT)	NOT AVAILABLE
POTASSIUM HYDROXIDE	1-5	1310-58-3	ACGIH TLV-TWA 2 mg/ m^3 OSHA PEL 2 mg/ m^3 NIOSH REL-TWA 2 mg/ m^3	ORAL 214-365 mg/ Kg (RAT) DERMAL 1260 mg/ Kg (RABBIT)	NOT AVAILABLE
PHOSPHORIC ACID	0.5-1.5	7664-38-2	ACGIH TLV-TWA 1 mg/ m^3 TLV-STEL 3 mg/ m^3 OSHA-TWA 1 mg/ m^3 STEL 3 mg/ m^3 IDLH: 1000 mg/ m^3	ORAL 1250-1530 mg/ Kg (RAT) DERMAL >1260 mg/ Kg (RABBIT)	>850 mg / m^3 I HOUR EXPOSURE (RAT)
OTHER INGREDIENTS	**%**	**CAS#**	**EXPOSURE LEVELS**	**LD (50), ROUTE, SPECIES**	**LC(50), ROUTE, SPECIES**
SILICIC ACID, SODIUM SALT SODIUM SILICATE	0.5-1.5	1344-09-8	NOT AVAILABLE	ORAL 1500 -3200 mg/ Kg (RAT) DERMAL 4640 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: PROLONGED SKIN CONTACT MAY CAUSE SEVERE IRRITATION AND BURNS THAT MAY NOT BE IMMEDIATELY PAINFUL OR VISIBLE. SEVERITY OF DAMAGE AND EXTENT OF ITS IRREVERSIBILITY INCREASES WITH LENGTH OF CONTACT TIME.

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

EYE: MAY CAUSE SEVERE IRRITATION, BURNS, TISSUE DAMAGE EVEN BLINDNESS.

INHALATION: EXCESSIVE INHALATION MAY CAUSE DIZZINESS, NAUSEA, HEADACHE AND DROWSINESS , NASAL AND RESPIRATORY IRRITATION AND POSSIBLE BURNS. DUE TO ITS CORROSIVE NATURE POTASSIUM HYDROXIDE 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.

INGESTION: HARMFUL IF SWALLOWED. MAY CAUSE SEVERE BURNS, IRRITATION AND NAUSEA, VOMITING, DIZZINESS AND DIARRHEA. ASPIRATION OF MATERIAL INTO LUNGS DURING VOMITING CAN CAUSE CHEMICAL PNEUMONITIS.

ACUTE OVER-EXPOSURE

EFFECTS: AS ABOVE. PREVIOUSLY EXISTING SKIN AND/OR RESPIRATORY CONDITIONS MAY BE AGGRAVATED BY PRODUCT EXPOSURE.

CHRONIC OVER EXPOSURE

EFFECTS: 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 WHEN USED AS DIRECTED. INGESTION OVER TIME OF GRAM QUANTITIES OF SODIUM SILICATE COMPONENT MAY CAUSE KIDNEY STONES AND OTHER SILICEOUS URINARY STONES IN HUMANS. NOT EXPECTED WITH OCCUPATIONAL EXPOSURE.

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 MEDICAL ATTENTION.

SKIN: WASH SKIN WITH SOAP AND WATER UNTIL SLIPPERY FEELING IS GONE. REMOVE CONTAMINATED CLOTHING. IF SYMPTOMS PERSIST, GET MEDICAL ATTENTION.

INHALATION: IF SAFE TO ENTER VICTIMS AREA, REMOVE VICTIM TO FRESH AIR. ASSIST BREATHING AS NEEDED. GET MEDICAL ATTENTION.

INGESTION: **DO NOT INDUCE VOMITING**. IF VICTIM CONSCIOUS, GIVE 1 - 2 GLASSES OF WATER TO DILUTE STOMACH CONTENTS. **GET 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: USE FOAM, DRY CHEMICAL, CARBON DIOXIDE, WATER FOG OR SPRAY.

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, NITROGEN, SULPHUR AND PHOSPHOROUS.

EXPLOSION DATA: AS WITH ANY STRONGLY ALKALINE SOLUTION , CAN REACT WITH ALUMINIUM, ZINC OR OTHER SOFT METALS GENERATING HYDROGEN. 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: 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. 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 LAUNDER BEFORE RE-USE KEEP CONTAINER CLOSED WHEN NOT IN USE. MIX ONLY WITH WATER; ALWAYS ADD PRODUCT TO WATER: NEVER WATER TO PRODUCT. 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. STORE ONLY IN ORIGINAL 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. USE FACE SHIELD IF SPLASHES POSSIBLE.

RESPIRATORY PROTECTION: USE NIOSH APPROVED RESPIRATOR IF EXPOSURE LIMITS ARE EXCEEDED OR IRRITATION OCCURS. USE RESPIRATOR IN ENCLOSED SPACE.

GLOVES: WEAR RUBBER OR PLASTIC SOLVENT RESISTANT GLOVES.

OTHER PROTECTIVE EQUIPMENT: AS NEEDED TO PREVENT ALL CONTACT WITH PRODUCT.

SPECIFIC ENGINEERING CONTROLS: USE GENERAL MECHANICAL AND / OR LOCAL EXHAUST. USE CORROSION RESISTANT MATERIAL.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	LIQUID
ODOUR AND APPEARANCE:	MILD ODOUR, CLEAR COLOURLESS LIQUID.
ODOUR THRESHOLD:	NOT AVAILABLE
SPECIFIC GRAVITY:	1.038-1.042
VAPOUR PRESSURE :	NOT AVAILABLE
VAPOUR DENSITY (AIR=1):	NOT AVAILABLE
VOC CONTENT (%):	0 (ARB 310)
EVAPORATION RATE;	NOT AVAILABLE
BOILING POINT;	100^{0} C (212^{0} F)
PH:	12.2-12.6
FREEZING POINT:	NOT AVAILABLE
DENSITY (g/ ml):	1.038-1.042
COEFFICIENT OF WATER/OIL DISTRIBUTION:	COMPLETELY WATER SOLUBLE

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:	STABLE WHEN STORED AND USED AS DIRECTED
INCOMPATIBLE MATERIALS:	ACIDS AND OXIDIZING AGENTS. AVOID PROLONGED CONTACT WITH ALUMINIUM AND GALVANIZED METAL AT HIGH CONCENTRATIONS.
CONDITIONS OF REACTIVITY:	ALWAYS ADD PRODUCT TO WATER: NEVER WATER TO PRODUCT- THERMAL REACTION MAY BE GENERATED.
HAZARDOUS DECOMPOSITION PRODUCTS:	OXIDES OF CARBON, NITROGEN, PHOSPHOROUS AND SULFUR.

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SECTION 11: TOXICOLOGICAL INFORMATION

IRRITANCY OF PRODUCT: SEVERE IRRITANT
SENSITIZATION TO MATERIAL: NOT AVAILABLE
CARCINOGENICITY: NO KNOWN CARCINOGENS LISTED BY OSHA, IARC OR NTP.
REPRODUCTIVE EFFECTS: NO ADVERSE REPRODUCTIVE EFFECTS ANTICIPATED FOR GLYCOL ETHER COMPONENT
TERATOGENICITY: POTASSIUM HYDROXIDE COMPONENT IS NOT EXPECTED TO BE TERATOGENIC. NO ADVERSE TERATOGENIC EFFECTS ANTICIPATED FOR GLYCOL ETHER AND PHOSPHORIC ACID COMPONENTS.
MUTAGENICITY: TESTS ON GLYCOL ETHER COMPONENT USING BACTERIA AND CULTURED MAMMALIAN CELLS HAVE BEEN NEGATIVE FOR MUTAGENIC EFFECTS. NO HUMAN INFORMATION IS AVAILABLE. IN VITRO INFORMATION SUGGESTS THAT POTASSIUM HYDROXIDE COMPONENT IS NOT MUTAGENIC. PHOSPHORIC ACID COMPONENT BACTERIA MUTAGENIC TEST RESULTS WERE NEGATIVE. NO REPORTED MUTAGENICITY IN HUMANS OR HUMAN CELL CULTURES . SODIUM SILICATE COMPONENT IS NOT MUTAGENIC TO E.COLI WHEN TESTED IN MUTAGENIC BIOASSAY.
TOXICOLOGICALLY SYNERGISTIC PRODUCTS: GLYCOL ETHER COMPONENT MAY ENHANCE THE TOXICITY OF SOME CHLORINATED HYDROCARBONS, DITHIOCARBAMATES OR DIMETHYLNITROSAMINES
OTHER INFORMATION: INGESTION OVER TIME OF GRAM QUANTITIES OF SODIUM SILICATE COMPONENT MAY CAUSE KIDNEY STONES AND OTHER SILICEOUS URINARY STONES IN HUMANS. NOT EXPECTED WITH OCCUPATIONAL EXPOSURE.

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: POTASSIUM HYDROXIDE LC50, 24 HR, MOSQUITO FISH: 80.0 mg/L
POTASSIUM HYDROXIDE LC 50, 96 HR, FAT HEAD MINNOW: 179 mg/ L
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
SODIUM SILICATE LC 50, 96 HR, GAMBUSIA AFFNIS: 2320 ppm
SODIUM SILICATE LC 50, 96 HR, ZEBRA FISH: 210 ppm
PHOSPHORIC ACID LC 50 MOSQUITO FISH: 138 mg/ L
PHOSPHORIC ACID LC 50, 96 HR, MOSQUITO FISH: 3-3.5 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
SODIUM SILICATE LC 50, 96 HR: DAPHNIA 247 ppm
SODIUM SILICATE LC 50, 96 HR: SNAIL EGGS 632 ppm
SODIUM SILICATE LC 50, 96 HR: AMPHIPODA 160 ppm
MICROORGANISMS: PHOSPHORIC ACID, EC 50, ACTIVATED SLUDGE: 270 mg/ L
PHOSPHORIC ACID, EC 50, OTHER PROTOZOANS: 240 mg/ L
(GROWTH INHIBITION) PLANTS: POTASSIUM HYDROXIDE, EC 50, 96 HR, GREEN ALGAE: 61 mg/ L
GLYCOL ETHER EC 50, SCENEDESMUS SUBSPICATUS: 100 mg/ L

GLYCOL ETHER COMPONENT IS PRACTICALLY NON-TOXIC TO AQUATIC ORGANISMS. TOXICITY OF SODIUM SILICATE AND POTASSIUM HYDROXIDE COMPONENTS 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. TOXICITY OF PHOSPHORIC ACID COMPONENT IS RELATED TO PH. IT IS HARMFUL TO AQUATIC LIFE AT LOW CONCENTRATIONS

BIODEGRADABILITY: GLYCOL ETHER COMPONENT IS EXPECTED TO BE READILY BIODEGRADABLE. GLYCOL ETHER COMPONENT: BOD-5 DAYS 22-27%, 10 DAYS 60-80%, 20 DAYS 77-85%. SODIUM SILICATE, PHOSPHORIC ACID AND POTASSIUM HYDROXIDE COMPONENTS ARE INORGANIC SUBSTANCE AND THEREFORE NOT AMENABLE TO BIODEGRADATION. THEY HAVE NO BOD.
MOBILITY: PHOSPHORIC ACID COMPONENT WHEN RELEASED IN THE SOIL MAY LEACH INTO GROUNDWATER. WHEN RELEASED TO WATER, ACIDITY MAY BE READILY REDUCED BY NATURAL WATER HARDNESS MINERALS. SODIUM SILICATE COMPONENT SINKS AND DISSOLVES IN WATER
PERSISTENCE: SODIUM SILCATE COMPONENT WILL PERSIST IN AQUATIC AND TERRESTRIAL SYSTEMS. THE PHOSPHOROUS COMPONENT OF PHOSPHORIC ACID MAY PERSIST INDEFINITELY.
BIOACCUMULATIVE: SODIUM SILICATE COMPONENT DOES NOT BIOACCUMULATE EXCEPT IN SPECIES THAT USE SILICA AS A STRUCTURAL MATERIAL SUCH AS DIATOMS AND SILICEOUS SPONGES. POTASSIUM HYDROXIDE, PHOSPHORIC ACID AND GLYCOL ETHER COMPONENTS DO NOT BIOACCULUMATE
CHEMICAL FATE INFORMATION: SODIUM SILICATE COMPONENT YIELDS DISSOLVED SILICA THAT IS INDISTINGUISHABLE FROM NATURAL DISSOLVED SILICA
OTHER INFORMATION: GLYCOL ETHER COMPONENT CAN PHOTODEGRADE IN THE AIR. ESTIMATED HALF LIFE IS EXPECTED TO BE 10 HOURS WHEN RELEASED INTO THE AIR. SODIUM SILICATE COMPONENT DOES NOT BIOCONCENTRATE UP THE FOOD CHAIN.

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SECTION 13: DISPOSAL CONSIDERATIONS

IN ACCORDANCE WITH MUNICIPAL, PROVINCIAL AND FEDERAL REGULATIONS.

SECTION 14: TRANSPORT INFORMATION

TDG: UN 3266
CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE)
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PACKING GROUP II

ADDITIONAL INFORMATION: NOT AVAILABLE
MARINE POLLUTANT: NO

SECTION 15: REGULATORY INFORMATION:

DSL STATUS: LISTED
HMIS CLASSIFICATION (H, F, R, PE): 2,0,1,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.