



MATERIAL SAFETY DATA SHEET

PRS FIRE & CONTENT CLEANER

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 : PRS FIRE AND CONTENT CLEANER
 PRODUCT USE : HEAVY DUTY CLEANER WITH ADDED BACTERIA
 WHMIS CATEGORY: E
 PREPARED BY : ROCHESTER MIDLAND LIMITED.
 PHONE NUMBER OF PREPARER: (905) 847-3000
 DATE PREPARED: AUGUST 1, 2010



SECTION 02: COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	%	CAS#	EXPOSURE LEVELS	LD (50), ROUTE, SPECIES	LC(50), ROUTE, SPECIES
MONOETHANOLAMINE	1-5	141-43-5	OSHA PEL TWA 3 ppm TWA 8 mg/ m ³ STEL 6ppm STEL 15 mg/ m ³ ACGIH STEL 6 ppm TLV-TWA 2 mg/ m ³ NIOSH TWA 3ppm IDLH 30 ppm	ORAL 1720 mg/ Kg (RAT) DERMAL 1000 mg/ Kg (RABBIT)	>1210 mg /m ³ 4 HOUR EXPOSURE (MOUSE)
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 273 mg/ Kg (MALE RAT)	NOT AVAILABLE
SODIUM LAURYL SULFATE	1-5	151-21-3	NOT AVAILABLE	ORAL 1288 mg/ Kg (RAT) DERMAL 10,000 mg/ Kg (RABBIT)	>3900 mg/ m ³ 1 HOUR EXPOSURE (RAT)
OLEIC ACID	1-5	112-80-1	NOT AVAILABLE	ORAL 25000 mg/ Kg (RAT) DERMAL 500 mg/ Kg (RAT)	NOT AVAILABLE
OTHER INGREDIENTS	%	CAS#	EXPOSURE LEVELS	LD (50), ROUTE, SPECIES	LC(50), ROUTE, SPECIES
VIAIBLE BACTERIAL CULTURES IN SOLUTION	0.5-1.5	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE

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SECTION 03: HAZARDS IDENTIFICATION

POTENTIAL ACUTE HEALTH EFFECTS:

ROUTE OF ENTRY: EYES, SKIN, INHALATION, INGESTION

SKIN CONTACT: REPEATED OR PROLONGED CONTACT MAY CAUSE IRRITATION AND BURNS THAT MAY NOT BE IMMEDIATELY PAINFUL OR VISIBLE. ORGANISMS USED ARE NON-PATHOGENIC BUT CAN CAUSE INFECTION WHEN IN CONTACT WITH OPEN WOUNDS OR BROKEN SKIN. THESE ORGANISMS ARE SUSCEPTIBLE TO MANY COMMONLY -USED ANTIBIOTICS.

SKIN ABSORPTION : ABSORPTION OF MONOETHANOLAMINE COMPONENT MAY RESULT FROM PROLONGED OR WIDESPREAD SKIN CONTACT. NOT EXPECTED UNDER NORMAL USE CONDITIONS.

EYE: MAY CAUSE SEVERE IRRITATION AND BURNS; POSSIBLE PERMANENT TISSUE DAMAGE; EVEN BLINDNESS IF LEFT UNTREATED.

INHALATION: INHALATION OF CONCENTRATED SPRAY MIST MAY CAUSE IRRITATION AND BURNS OF RESPIRATORY TRACT.

INGESTION: HARMFUL IF SWALLOWED. MAY CAUSE IRRITATION, BURNS, NAUSEA, VOMITING AND DIARRHEA. ASPIRATION OF VOMITED CONTENTS INTO LUNGS MAY CAUSE CHEMICAL PNEUMONITIS.

ACUTE OVER-EXPOSURE

EFFECTS: AS ABOVE.

CHRONIC OVER EXPOSURE

EFFECTS: REPEATED OVEREXPOSURE MAY CAUSE DERMATITIS. REPEATED OVEREXPOSURE TO MONOETHANOLAMINE COMPONENT MAY CAUSE LIVER AND KIDNEY EFFECTS

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 WATER FOR AT LEAST 20 MINUTES. REMOVE CONTAMINATED CLOTHING. GET MEDICAL ATTENTION.

INHALATION: 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 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 APPLICABLE

LOWER EXPLOSION LIMIT

(% BY VOLUME): NOT APPLICABLE

AUTO-IGNITION TEMPERATURE: NOT AVAILABLE

FLAMMABILITY CLASSIFICATION: NON-FLAMMABLE LIQUID

CONDITIONS OF FLAMMABILITY: NONE. (PRODUCT WILL NOT BURN)

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. DO NOT ALLOW PRODUCT OR WATER USED IN FIRE FIGHTING TO ENTER OPEN WATER 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 CREATE AN EXPLOSION HAZARD

SENSITIVITY TO STATIC

DISCHARGE: NOT SENSITIVE

SENSITIVITY TO MECHANICAL

IMPACT : NOT SENSITIVE

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 DISPOSAL. FLUSH AREA WITH WATER.

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SECTION 07: HANDLING AND STORAGE

HANDLING PROCEDURES

AND EQUIPMENT: CORROSIVE PRODUCT- HANDLE WITH CARE. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID CONTACT WITH OPEN WOUNDS OR BROKEN SKIN. AVOID EXCESSIVE INHALATION OF MISTS/SPRAYS. WASH HANDS THOROUGHLY WITH SOAP AND WATER AFTER USE. REMOVE CONTAMINATED CLOTHING AND LAUNDRY BEFORE RE-USE. KEEP CONTAINER CLOSED WHEN NOT IN USE. READ AND FOLLOW LABEL INSTRUCTIONS. DO NOT CONTAMINATE FOOD, WATER OR FEED DURING USE OR STORAGE OF THIS PRODUCT. MIX ONLY WITH WATER. ALWAYS ADD PRODUCT TO WATER: NEVER WATER TO PRODUCT.

STORAGE

REQUIREMENTS: STORE IN A COOL WELL VENTILATED AREA AWAY FROM INCOMPATIBLE MATERIALS. DO NOT FREEZE. KEEP OUT OF REACH OF CHILDREN. DO NOT REUSE CONTAINER. STORE ONLY IN ORIGINAL CONTAINER. AVOID HIGH TEMPERATURES OF GREATER THAN 40 °C.

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 SAFETY GOGGLES.

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

GLOVES: WEAR RUBBER, VINYL OR NEOPRENE GLOVES.

OTHER PROTECTIVE

EQUIPMENT: AS NEEDED TO PREVENT ALL CONTACT WITH PRODUCT.

SPECIFIC ENGINEERING

CONTROLS: USE MECHANICAL AND/OR LOCAL EXHAUST IF TLV IS EXCEEDED.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: LIQUID

ODOUR AND APPEARANCE: FAT LIKE ODOUR: STRAW TO LIGHT YELLOW COLOURED LIQUID

ODOUR THRESHOLD: NOT AVAILABLE

SPECIFIC GRAVITY: 1.009-1.019

VAPOUR PRESSURE : NOT AVAILABLE

VAPOUR DENSITY (AIR=1): NOT AVAILABLE

VOC CONTENT (%): 2.3-2.9 (EPA METHOD 24)

EVAPORATION RATE; NOT AVAILABLE

BOILING POINT; 100 °C (212 °F)

PH: 12-12.5

FREEZING POINT: NOT AVAILABLE

DENSITY (g/ ml): 1.009-1.019

COEFFICIENT OF WATER/OIL

DISTRIBUTION: COMPLETELY WATER SOLUBLE

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: STABLE UNDER NORMAL USE AND STORAGE. AVOID TEMPERATURE EXTREMES TO MAINTAIN SHELF LIFE.

INCOMPATIBLE MATERIALS: AVOID CONTACT WITH ACIDS; NEUTRALIZES ACTIVE INGREDIENTS. AVOID CONTACT OF PRODUCT WITH ALUMINIUM, TIN, OR GALVANIZED SURFACES SINCE PITTING OR SURFACE DETERIORATION MAY RESULT.

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

HAZARDOUS DECOMPOSITION

PRODUCTS: OXIDES OF CARBON AND NITROGEN

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SECTION 11: TOXICOLOGICAL INFORMATION

IRRITANCY OF PRODUCT: MODERATE IRRITANT
SENSITIZATION TO MATERIAL: SODIUM LAURYL SULFATE COMPONENT MAY CAUSE ALLERGIC SENSITIVITY REACTION IN SENSITIVE PERSONS. OLEIC ACID COMPONENT IS NOT A SKIN SENSITIZER. INDIVIDUALS WITH A HISTORY OF DERMAL ALLERGIC REACTION MAY EXPERIENCE SLIGHT REDNESS ON HANDS AND FOREARMS.

CARCINOGENICITY,: NO KNOWN CARCINOGENS LISTED BY OSHA, IARC OR NTP.
REPRODUCTIVE EFFECTS: NO KNOWN REPRODUCTIVE EFFECTS.
TERATOGENICITY: SODIUM LAURYL SULFATE, POTASSIUM HYDROXIDE AND OLEIC ACID COMPONENTS ARE NOT EXPECTED TO BE TERATOGENIC. WITH RESPECT TO MONOETHANOLAMINE COMPONENT THERE IS NO HUMAN INFORMATION AVAILABLE FOR TERATOGENICITY AND EMBRYOTOXICITY. LIMITED STUDIES HAVE SHOWN DEVELOPMENTAL EFFECTS IN OFFSPRING OF RATS AND MICE ORALLY EXPOSED TO MATERNALLY TOXIC DOSES.

MUTAGENICITY: SODIUM LAURYL SULFATE AND OLEIC ACID COMPONENTS ARE NOT EXPECTED TO BE MUTAGENIC. TESTS ON MONOETHANOLAMINE COMPONENT USING BACTERIA AND CULTURED MAMMALIAN CELLS HAS BEEN NEGATIVE FOR MUTAGENIC EFFECTS. IN VITRO INFORMATION SUGGESTS THAT POTASSIUM HYDROXIDE COMPONENT IS NOT MUTAGENIC.

TOXICOLOGICALLY SYNERGISTIC PRODUCTS: NOT AVAILABLE.

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
MONOETHANOLAMINE LC50 (96 HR), GOLDFISH:170 mg/L
MONOETHANOLAMINE LC 50 ,96 HR, GOLDFISH: 170 mg/L
MONOETHANOLAMINE LC 50 ,96 HR, FATHEAD MINNOW 2070 mg/L
MONOETHANOLAMINE LC 50 ,96 HR, FATHEAD MINNOW : 227 mg/L
MONOETHANOLAMINE LC 50 ,96 HR, FATHEAD MINNOW :125 mg/L
MONOETHANOLAMINE LC 50 ,96 HR, RAINBOW TROUT: 150 mg/L
MONOETHANOLAMINE LC 50 ,96 HR, BLUEGILL :329 mg/L
MONOETHANOLAMINE LC 50 ,96 HR, ZEBRAFISH :3684 mg/L
OLEIC ACID LC 50 (48 HR)< UNSPECIFIED FISH SPECIES: >100 mg/L
OLEIC ACID LC 50, 96 HR, FATHEAD MINNOW: 205 mg/L
OLEIC ACID LC 50, 96 HR, GOLDFISH: 8 mg/L (SODIUM SALT)
OLEIC ACID LC 50, 96 HR, RED KILLFISH: 217 mg/L (SODIUM SALT)
SODIUM LAURYL SULFATE LC 50, 96 HR, RAINBOW TROUT: 4.6 mg/L
SODIUM LAURYL SULFATE LC 50, 96 HR, FATHEAD MINNOW (FRY): 10.2 mg/L
SODIUM LAURYL SULFATE LC 50, 96 HR, FATHEAD MINNOW (JUVENILE): 17 mg/L
SODIUM LAURYL SULFATE LC 50, 96 HR, FATHEAD MINNOW (ADULT): 22.5 mg/L

INVERTEBRATES: POTASSIUM HYDROXIDE, EC 50, 48 HR, WATER FLEA: 60 mg/L
MONOETHANOLAMINE LC 50, 48 HR, DAPHNIA MAGNA: 33-93 mg/L

MICROORGANISMS: MONOETHANOLAMINE ACTIVATED SLUDGE INHIBITION IC 50: >1000 mg/L
MONOETHANOLAMINE, PHYTOBACTERIUM PHOSPHOREUM IC 50: 13.7 mg/L
OLEIC ACID, EC 50, (16 HR), PSEUDOMONAS PUTIDA: >100 mg/L

(GROWTH INHIBITION) PLANTS: POTASSIUM HYDROXIDE, EC 50, 96 HR, GREEN ALGAE: 61 mg/L

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. MONOETHANOLAMINE BOD DAY 5: 36% DAY 10: 45-49% DAY 20: 64-100%. MONOETHANOLAMINE OECD 301B: 97% 28 DAYS; OECD 301E: 94% 28 DAYS; OECD 301F >70% 28 DAYS. WHEN RELEASED INTO THE SOIL, MONOETHANOLAMINE COMPONENT MAY BIODEGRADE TO A MODERATE EXTENT. WHEN RELEASED INTO THE SOIL, OLEIC ACID COMPONENT IS EXPECTED TO READILY BIODEGRADE. WHEN RELEASED INTO WATER, OLEIC ACID IS EXPECTED TO READILY BIODEGRADE WHEN RELEASED INTO THE WATER, OLEIC ACID COMPONENT IS EXPECTED TO HAVE A HALF-LIFE BETWEEN 1 AND 10 DAYS. WHEN RELEASED INTO WATER, OLEIC ACID COMPONENT MAY EVAPORATE TO A MODERATE EXTENT

MOBILITY: WHEN RELEASED INTO THE SOIL, OLEIC ACID COMPONENT IS EXPECTED TO HAVE A HALF-LIFE OF LESS THAN 1 DAY WHEN RELEASED INTO THE SOIL, MONOETHANOLAMINE COMPONENT MAY LEACH INTO GROUNDWATER

PERSISTENCE: NOT AVAILABLE

BIOACCUMULATIVE: MONOETHANOLAMINE HAS AN ESTIMATED BIOCONCENTRATION FACTOR (BCF) OF LESS THAN 100. MONOETHANOLAMINE COMPONENT IS NOT EXPECTED TO SIGNIFICANTLY BIOACCUMULATE. OLEIC ACID COMPONENT HAS AN ESTIMATED BIOCONCENTRATION FACTOR (BCF) OF GREATER THAN 100. POTASSIUM HYDROXIDE COMPONENT DOES NOT BIOACCUMULATE.

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SECTION 12: ECOLOGICAL INFORMATION (CONT'D)

CHEMICAL FATE INFORMATION: NOT AVAILABLE

OTHER INFORMATION:

WHEN RELEASED INTO THE AIR, MONOETHANOLAMINE AND OLEIC ACID COMPONENTS ARE EXPECTED TO BE READILY DEGRADED BY REACTION WITH PHOTOCHEMICALLY PRODUCED HYDROXYL RADICALS. WHEN RELEASED INTO THE AIR, MONOETHANOLAMINE AND OLEIC ACID COMPONENTS ARE EXPECTED TO HAVE A HALF-LIFE OF LESS THAN 1 DAY. WHEN RELEASED INTO THE AIR, MONOETHANOLAMINE MAY BE REMOVED FROM THE ATMOSPHERE TO A MODERATE EXTENT BY WET DEPOSITION. WHEN RELEASED INTO WATER, OLEIC ACID COMPONENT MAY EVAPORATE TO A MODERATE EXTENT. MONOETHANOLAMINE COD MEASURED: 0.76-1.27 mg/ mg: THOD: 2.36 mg/mg.

SECTION 13: DISPOSAL CONSIDERATIONS

IN ACCORDANCE WITH MUNICIPAL, PROVINCIAL AND FEDERAL REGULATIONS.

SECTION 14: TRANSPORT INFORMATION

TDG: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE)
8
UN 3266
PACKING GROUP II

ADDITIONAL INFORMATION: NOT AVAILABLE
MARINE POLLUTANT: NO

SECTION 15: REGULATORY INFORMATION:

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