

MATERIAL SAFETY DATA SHEET

Product Name: TOLUENE (TOLUOL)

SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer/Supplier: Endura Manufacturing Co. Ltd.
12425 - 149 Street
Edmonton, Alberta
T5L 2J6
Ph: (780) 451-4242 Fax: (780) 452-5079
24-Hour Emergency Number:.... (613) 996-6666 (Canutec)
Product Name:..... TOLUENE
Item Number:..... UN 1294 CI 3 PG II
Chemical Family:..... Aromatic Hydrocarbon
Material Use:..... Solvent

SECTION 02: COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	C.A.S.	LD/50, ROUTE, SPECIES	LC/50, ROUTE, SPECIES	TLV	% WT
toluene	108-88-3	5 g/kg o-r 14 g/kg d-rbt	8000 ppm/4h i-r	50 ppm	100
legend:	o=oral	d=dermal	i=inhalation	rbt=rabbit	r=rat

SECTION 03: HAZARDS IDENTIFICATION

Eye Contact:..... Moderately irritating vapors. Eye contact causes severe irritation with redness, pain, tearing, blurred vision.
Skin Contact:..... Very low order of toxicity by skin contact. However, frequent or prolonged contact may irritate the skin and cause defatting, dermatitis.
Inhalation:..... The vapors are of low to moderate toxicity. In high concentrations the vapors are irritating to nose and respiratory tract. Excessive inhalation can cause central nervous system effects including headache, fatigue, dizziness, drowsiness, numbness, confusion and possible unconsciousness.
Ingestion:..... Low order of toxicity. Swallowing may cause abdominal spasms, nausea, vomiting, diarrhea, and other symptoms that parallel overexposure from inhalation. Aspiration into the lungs during swallowing or vomiting may cause severe lung damage.
Additional Information:..... Chronic hazards include liver and kidney damage. Repeated or prolonged contact can cause anemia, decreased blood cell count and bone marrow hypoplasia. May affect developing foetus.

SECTION 04: FIRST AID MEASURES

Inhalation (acute):..... Rescuers should wear respiratory protection. Remove victim immediately from contaminated area. Apply artificial respiration if breathing has stopped. If breathing is difficult, a qualified person should administer oxygen. Call a physician.
Ingestion:..... Give two glasses of water. Due to the possibility of aspiration into the lungs, do not induce vomiting. Keep at rest and call a physician.
Eye Contact:..... Check for and remove any contact lenses. Flush eyes with water for at least 15 minutes. Get medical attention. Remove contaminated clothing and wash before reuse. Wash skin with soap and water. Seek immediate medical attention.
Skin Contact:.....
Notes to Physician:..... Can aggravate impaired liver or kidneys function. Alcoholic beverage consumption can enhance the toxic effects of the substance.

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SECTION 05: FIRE FIGHTING MEASURES

Flash Point (°C) (TCC):..... 7
 Auto Ignition Temperature (°C):..... 480
 Upper Explosive Limit (% Vol):..... 7
 Lower Explosive Limit (% Vol):..... 1
 Extinguishing Media:..... Use dry chemical, CO₂, alcohol foam or water spray.
 Hazardous Combustion Products:..... CO, CO₂, various hydrocarbons.
 Sensitivity To Mechanical Impact:..... None
 Sensitivity To Static Discharge:..... See above.
 Special Fire Fighting Procedures:..... Respirators required for firefighting personnel. If possible to do so safely, shut off fuel to fire. Use water spray to cool fire-exposed surfaces and to protect personnel. Avoid spreading burning liquid with water spray used for cooling containers. When using water spray, boil-over may occur when the product temperature reaches the boiling point of water.
 Conditions of Flammability:..... Vapors from this product may travel or be moved by air currents and be ignited by pilot lights, other flames, smoking, heaters, electrical equipment, static discharges or other ignition sources at locations distant from the point of handling.

SECTION 06: ACCIDENTAL RELEASE MEASURES

Leak / Spill:..... Remove all sources of ignition. Prevent from entering sewers or watercourses. Ventilate enclosed spaces or wear respiratory protection. Pump up (explosion-proof equipment) or soak up with sand, cotton waste or other absorbent.
 Clean Up:.....

SECTION 07: HANDLING AND STORAGE

Handling Procedures:..... Avoid static charges and excessive heat. Keep containers tightly closed and upright when not in use. Product is a static accumulator. Transfer equipment should be properly grounded or bonded. Electrical and mechanical equipment should be explosion-proof. Containers may retain hazardous residues when emptied and should be commercially cleaned before reuse.
 Storage Needs:..... Store in a cool, dry place away from oxidizing agents and sources of ignition.

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

PROTECTIVE EQUIPMENT
 Eye/Type:..... Personnel should wear safety glasses with side shields.
 Respiratory/Type:..... Personnel should wear a suitable air supplied respirator.
 Gloves/Clothing/Footwear/Type:..... Personnel should wear chemical-resistant clothing and rubber or plastic (PVA) gloves and boots.
 Other/Type:..... A safety shower and eye wash facility should be available.
 Ventilation Requirements:..... Adequate ventilation must be assured to prevent the accumulation of dangerous amounts of vapor or mist.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Physical State (appearance):..... Clear, colourless liquid
 Density (g/ml):..... 0.86
 Odor:..... Aromatic odor
 Odor Threshold (ppm):..... 30
 Vapor Pressure (@20°C):..... >22 mm Hg
 Vapor Density (Air=1):..... 3.14
 Evaporation Rate:..... 2.24
 Boiling Point (°C):..... 110
 pH:..... N/A
 Coefficient of Water/Oil Distribution:..... N/A
 Freezing Point (°C):..... -95
 VOC:..... 860 g/l 7.16 lbs/gal



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SECTION 10: STABILITY AND REACTIVITY

Materials to Avoid:..... Strong oxidizing agents, strong alkalies, strong mineral acids. Will attack some forms of plastics, rubber and coatings.

SECTION 11: REGULATORY INFORMATION

WHMIS Classification:..... B-2, D-2B

SECTION 12 DISPOSAL CONSIDERATIONS

Waste Disposal:..... Dispose of waste according to local, provincial and federal regulations. Utilize authorized centers for disposal of combustible chemical material. In case of large spills, warn public of downwind explosion hazard.

SECTION 13: TRANSPORT INFORMATION

T.D.G. Classification Shipping name: TOLUENE. UN number: 1294. Class: 3. Packing group: II.

SECTION 14: OTHER INFORMATION

Note:.....
Prepared By:..... Information Systems
Revision Date:..... March 10, 2011