
SECTION 1

Product Name: TOLUENE

Supplier's Name: APCO INDUSTRIES CO. LTD.
10 Industrial Street
Toronto, Ontario M4G 1Z1

Information Telephone: 416-421-6161

Prepared by M.C. Needham

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WHMIS Classification:

Class B, Division 2: Flammable Liquids

Class D, Division 2, Subdivision B: Toxic Material

TDG Information:

Shipping Name: Toluene

Class: 3

UN#: UN1294

Packing Group: II

SECTION 2 - HAZARDOUS INGREDIENTS

Toluene 100% CAS NO. 108-88-3
LD50: >2g/kg oral rat
LD50: >2g/Kg skin rabbit
LC50: 8,000 ppm rat

SECTION 3 - PHYSICAL/CHEMICAL PROPERTIES

Chemical Family: Petroleum Aromatic Hydrocarbon
Appearance and Odour: Clear, colourless liquid.
Characteristic odour.
Boiling Point: 110.2 Deg. C (230.4 Deg. F)
Dry Point: 111 Deg. C (231.6 Deg. F)
% Volatile by Volume: 100
Vapour Pressure: 2.91 kPa @ 20 Deg. C
Vapour Density (Air = 1): 3.47

MATERIAL SAFETY DATA SHEET

Page 2 of 4

Specific Gravity: 0.87 @ 15.5/15.5 Deg. C
Solubility in Water: 0.05% @ 25 Deg. C
Evaporation Rate (n-Butyl acetate = 1): 2.71
Viscosity: 0.65 CST @ 25 Deg. C approximate

SECTION 4 - FIRE AND EXPLOSION HAZARD

Flash Point and Method: TCC: 7 Deg. C
Auto Ignition Temperature: 545 Deg. C approximate
Flammable Limits(Percent by Volume)(Lel) 1.3(Uel) 6.8 approx.

Hazardous Products of Combustion: Fumes, smoke, carbon monoxide, and toxic gases.

General Hazards: Flammable Liquid; may release vapours that form flammable mixtures at or above the flash point. Toxic gases will form upon combustion.

Fire Fighting: Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel to fire if possible to do so without hazard. If a leak or spill has not ignited use water spray to disperse the vapours. Either allow fire to burn out under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam. Respiratory and eye protection required for fire fighting personnel. Avoid spraying water directly into storage containers due to danger of boilover.
A self-contained breathing apparatus (SCBA) is recommended for indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of an SCBA is optional.

SECTION 5 - REACTIVITY DATA

Stability: Stable
Incompatibility and Materials/Conditions to Avoid: Strong oxidizing agents, concentrated nitric or sulphuric acid, halogens, or molten sulphur.

SECTION 6 - HEALTH HAZARD DATA

Exposure Limit for Toluene(Skin): 50 ppm (188 mg/m3) ACGIH
Inhalation: High vapour concentrations are irritating to the eyes, nose, throat and lungs: may cause headaches and dizziness: may be anesthetic and may cause other central nervous system effects and death.
Negligible hazard at normal temperatures-up to 38 Deg C.
Eye Contact: Irritating, but does not cause eye tissue damage.
Skin Contact: Very low order of toxicity by skin absorption. However, frequent or prolonged contact may irritate the skin and cause dermatitis.
Ingestion: Low order of toxicity. However, minute amounts aspirated into the lungs during swallowing or subsequent vomiting may cause severe lung irritation and possibly death.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

PERSONAL PROTECTION:

The selection of personal protective equipment varies depending upon conditions of use. Where prolonged and/or repeated skin and eye contact is likely to occur, wear safety glasses with side shields, long sleeves, and chemical resistant gloves. Where eye contact is unlikely, but may occur as a result of short and/or periodic exposures, wear safety glasses with side shields. Where concentrations in air may exceed the occupational exposure limits given in Section 4 and where engineering, work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation.

ENGINEERING CONTROLS:

The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment.

HANDLING, STORAGE AND SHIPPING:

Keep container closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. DO NOT handle or store near an open flame, sources of heat, or sources of ignition. Protect material from direct sunlight. Material will accumulate static

MATERIAL SAFETY DATA SHEET

charges which may cause an incendiary electrical discharge. USE PROPER GROUNDING PROCEDURES. DO NOT pressurize, cut, heat, or weld empty containers. Empty product containers may contain product residue. DO NOT reuse empty containers without commercial cleaning or reconditioning.

SPILL CONTROL AND DISPOSAL:

Consult an expert on the disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

LAND SPILL:

Eliminate source of ignition. Keep public away. Prevent additional discharge of material, if possible to do so without hazard. Prevent spills from entering sewers, watercourses or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust. Recover by pumping (use an explosion proof motor or hand pump), or by using a suitable absorbent.

WATER SPILL:

Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in unconfined waters.

SECTION 8 - EMERGENCY FIRST AID PROCEDURES

Inhalation: Rescuers should wear respiratory protection. Remove immediately from contaminated area. Apply artificial respiration if breathing has stopped. Call a physician.

Eye Contact: Flush with water for at least 15 minutes, seek medical attention if irritation persists.

Skin Contact: Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing (including shoes) and launder before reuse.

Ingestion: Due to the possibility of aspiration into the lungs, do not induce vomiting, keep at rest and call a physician immediately.

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