

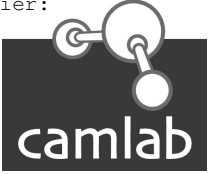
1. Identification

Product Code **1110725**

Product Name **TOLUENE (low in sulphur)**

Molecular Formula **C₆H₅CH₃ =92.14**

CAS Number **108-88-3**

Supplier: **CAMLAB LIMITED**

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 Cambridge
 England
 CB4 5WE**

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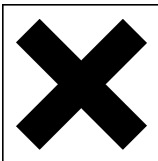
Fax **01954 233101**

Emergency Telephone **08:00-17:00 01954 233110**
24hr 112
(Have this document to hand)

2. Composition

Component	CAS No	EEC No	Conc w/w	Classification & Risk Phrases	Exp (See 8.1)
Toluene	108-88-3	203-625-9	> 99.0%	F Xn : R11,R20	WEL

3. Hazards Identification



Highly flammable. Harmful by inhalation.

4. First Aid Measures

Eyes Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION.

Skin Thoroughly wash off skin with soap and water. Remove contaminated clothing immediately and wash before re-use. In severe cases or if exposure has been great, OBTAIN MEDICAL ATTENTION.

Inhalation Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.

Ingestion If conscious give plenty of water to drink. Do not induce vomiting. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.

5. Fire Fighting Measures

Hazards Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. Vapour-air mixtures are explosive.

Extinguishing Media Alcohol resistant foam, dry powder, carbon dioxide or vaporising liquid. Use water spray to keep fire exposed containers cool.

Unsuitable Media Do not use water jet.

6. Accidental Release Measures

Personal Protection	Ensure no sources of ignition. Avoid breathing vapour. Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so. Beware : vapour is heavier than air and will tend to accumulate at low spots.
Environmental	Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
Major Spillage	Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water.
Minor Spillage	Contain and absorb on inert material. Transfer absorbent to container for removal. Allow solvent to evaporate in remote area, then dispose of absorbent as solid chemical waste. Wash area down with copious amounts of water.

7. Storage & Handling

Handling Precautions	All transfer systems should be earthed to prevent accumulation of static electricity. Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing. Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.
Storage Conditions	Well ventilated, cool, dry storage . Protect from direct sun and store away from sources of ignition. Keep containers closed when not in use. Keep well separated from oxidising agents.

8.1 Workplace Exposure Limits

Workplace Exposure Limits	Long Term (8hr TWA):	50.00 ppm	188.0 mg m-3
	Short Term (15min Period):	150.0 ppm	560.0 mg m-3

Special Hazards Can be absorbed through skin.

8.2 Personal Protection

Respiratory	Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge organic vapour respirator, or use self contained breathing apparatus.
Hands	Use solvent resistant gloves.
Eyes	Use chemical splash proof glasses or goggles.
Skin	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.

9. Physical & Chemical Properties

Appearance	Clear colourless liquid.
Odour	Characteristic aromatic odour.
pH	Not available
Boiling point	111.0 °C
Melting point	95.0- °C
Flash point	7.0 °C(Closed cup)
Upper Flammable Limit	7.0 %
Lower Flammable Limit	1.3 %
Auto Ignition	530.0 °C
Explosive properties	Severe in confined spaces.
Oxidising Properties	No.
Vapour Pressure	36.7 mmHg @ 30,C
Relative Density	0.8630
Water Solubility	0.05%

10. Stability & Reactivity

Chemical Stability	Stable under normal conditions
Conditions to Avoid	Hot surfaces, naked flames or other sources of ignition.
Materials to Avoid	Strong oxidising agents.
Hazardous Decomposition Products	None unusual. Burning will produce smoke, carbon monoxide and/or carbon dioxide.

11. Toxicological Information

Eyes	Both the vapour and liquid will, act as an eye irritant. Repeated exposure to the vapours can lead to reversible corneal changes and conjunctivitis
Skin	Repeated or prolonged contact may defat the skin producing irritation and dermatitis. Skin penetration is possible. May cause skin sensitisation.
LD50 Skin	Rabbit 14000mg/Kg
Ingest	The liquid causes damage to stomach and intestinal linings.
LD50 Ingest	Oral Rat 7.3 ml/Kg
Inhalation	Exposure to vapour concentrations above the occupational exposure limits will cause narcosis. Prolonged exposure to vapour concentrations above the occupational exposure limits will cause headache, nausea, vomiting and irritation of the mucous membranes. High concentrations of vapour may produce central nervous system depression and unconsciousness.
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	May be a mutagen.
Reproductive Effects	It is considerably embryotoxic, but only weakly teratogenic with a low incidence of malformations.

12. Ecological

Moderately toxic to mammals, fish and bacteria.

13. Disposal Considerations

Disposal Methods	Dispose of in a licensed incinerator for organic solvents. Do not dispose of as domestic waste. Never dispose of into water courses or sewerage systems due to high risk of explosion.
Contaminated Packaging	Use a licensed waste disposer. Do not attempt to burn any residual liquids due to risk of explosion.

14. Transport Information

Proper Shipping Name	Toluene
UN Number	1294
UN Classification	3 Flammable liquid
Subsidiary Risk	None
Flash Point	7.0 °C(Closed cup)
Packing Group	II
Transport Category	2
Marine pollutant	No
ADR Hazard ID	33



15. Regulatory Information

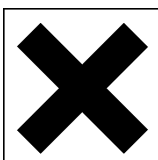
Labelling	Highly Flammable, Harmful.
Classification	

Label Symbols

F



Xn



15. Regulatory Information (continued)

Risk & safety Phrases Highly flammable. Harmful by inhalation. Keep out of reach of children. Keep away from sources of ignition - No Smoking. Avoid contact with eyes. Do not empty in to drains. Take precautionary measures against static discharges.

EEC Number 203-625-9

16. Other Information

Document Information This document has been prepared in accordance with directive 88/379/EEC.

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment.

Revision Date: 19/11/03.
Data reviewed and PDF file generated: 17/03/10.
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