

Toluene

CAS 108-88-3 · C₇H₈ · 99.8% min (IS 537) · 98.8–99.5% industrial

Velora Chemicals Private Limited
Ahmedabad, Gujarat, India
+91 99255 22674 · info@velorachemicals.com

1. Product identity

Product name	Toluene
Synonyms	methylbenzene, toluol, phenylmethane, C ₇ H ₈ , methyl benzene
C.A.S. number	108-88-3 (EC 203-625-9; EU CLP Annex VI Index No. 601-021-00-3)
Molecular formula	C ₇ H ₈ (C ₆ H ₅ CH ₃)
Molecular weight	92.14 g/mol (PubChem; 92.1384 g/mol NIST)
Grade supplied against	99.8% min (IS 537) · 98.8–99.5% industrial
Appearance	Clear, colourless, mobile liquid with a sweet, pungent, benzene-like odour. Odour must not be relied on as a warning property - toluene causes olfactory fatigue
Product group	Solvents & Organic Chemicals
HSN code	2902 30 00
Country of origin	As stated on the producer's documents for the lot supplied; confirmed at offer stage
Packing	MS drum 160–180 kg
Storage	Fireproof store, containers kept well closed and upright in the original labelled container, cool, well ventilated, out of direct sunlight, away from heat, hot surfaces, sparks, open flame and all ignition sources; no smoking. Separated from strong oxidants and from strong acids and bases. Store in an area with no drain or sewer connection. Bond and earth all containers and transfer equipment; use non-sparking tools and flameproof electrical fittings; nitrogen blanketing and vapour recovery for bulk tanks. Segregate from food and feed. In India toluene's flash point is below 23 C, which makes it petroleum Class A under the Petroleum Act 1934 and the Petroleum Rules 2002: storage above the exempt quantities, and movement in bulk by road, are separately licensed by PESO. Storage and handling also fall under the Manufacture, Storage and Import of Hazardous Chemical Rules 1989.

2. Analytical specification

S. No.	Test parameter	Specification	Method
1	Description	Clear, colourless, mobile liquid with a sweet, pungent, benzene-like odour. Odour must not be relied on as a warning property - toluene causes olfactory fatigue	Visual
2	Identification	Conforms to the substance supplied	Instrumental or chemical test, per method agreed
3	Assay / grade	99.8% min (IS 537) · 98.8–99.5% industrial	Titrimetry or instrumental, per method agreed
4	Physical state	Liquid at ambient temperature and pressure	Visual

S. No.	Test parameter	Specification	Method
5	Solubility in water	Slightly soluble - approximately 526 mg/L at 25 C (PubChem); 573-587 mg/L at 20 C (producer SDS). Miscible with ethanol, diethyl ether, acetone and most organic solvents. It is NOT insoluble, which is why spill containment and the no-drain rule matter	Per the test method agreed
6	pH	Not applicable (non-aqueous, non-electrolyte). No pH can be measured; a figure of 7 would be meaningless	Potentiometry
7	Relative density	0.866-0.867 g/cm ³ at 20 C; relative density 0.87 (water = 1) (ILO ICSC 0078; NIOSH). Producer grade range 0.846-0.873 g/cm ³ at 15 C. Note: the figure 0.8623 g/cm ³ is the 25 C value and is widely mislabelled as 20 C	Densitometry / hydrometry
8	Melting / freezing point	-95 C (ILO ICSC 0078; NIST triple point 178.15 K; NIOSH -139 F)	Capillary / thermal
9	Boiling point	110.6 C at 101.3 kPa (PubChem; NIST 383.8 +/- 0.2 K). ICSC rounds to 111 C	Distillation range
10	Flash point	4 C closed cup (ILO ICSC 0078; PubChem). Literature values span 4-6 C closed cup - NIOSH gives 4.4 C (40 F), producer sheets 5-6 C. No authoritative open-cup figure exists. Autoignition 480 C; explosive limits 1.1-7.1 vol% in air	Closed cup
11	Additional parameters	To the specification agreed before order	As agreed

3. Transport classification

UN 1294 · Class Class 3, flammable liquids. No subsidiary risk. ADR classification code F1, label 3 only, Kemler hazard identification number 33, tunnel restriction code (D/E). Not a marine pollutant · Packing group II

Proper shipping name: TOLUENE

What this document is. This is a product specification sheet. It states the grade this material is supplied against, its packing and its identity. **It is not a certificate of analysis, it carries no test results, and it certifies no batch.** Tested values for the consignment actually loaded appear on the batch certificate of analysis issued against that batch, which travels with the despatch documents. Identity and physical data are drawn from PubChem, the ECHA CLP inventory and ILO safety cards; the producer's documents for the grade quoted govern. Velora Chemicals Private Limited is a bulk supplier and trader, not a manufacturer.