



# SAFETY DATA SHEET

**PRODUCT NAME:** TOLUENE

Issue Date: September 22

## IDENTIFICATION

**Product Name:** Toluene  
**Other Names:** Methyl benzol, Methyl benzene, phenylmethane, toluol  
**Product Code:** CT20, ZTOLU  
**Uses:** Raw material for use in the chemical industry, solvent.  
**Supplier:** HamChem Hamilton Chemicals Ltd, 75 Ruffell Rd, Hamilton  
Phone: 079744971 Web: [www.hamchem.co.nz](http://www.hamchem.co.nz) Email: [sales@hamchem.nz](mailto:sales@hamchem.nz)

- In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.
- In case of poisoning phone National Poisons Centre – 0800 764 766

## HAZARD IDENTIFICATION



### GHS Classifications

Flammable Liquid – Category 2  
Acute Toxicity (Oral) – Category 4  
Acute Toxicity (Inhalation) – Category 4  
Skin Irritation – Category 2  
Eye Irritation – Category 2  
Reproductive Toxicity – Category 2  
Specific Target Organ Toxicity (Repeated Exposure) – Category 2

**Signal word:** DANGER

### Hazard Statements

H225 Highly flammable liquid and vapour.  
H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H361 Suspected of damaging fertility or the unborn child.  
H373 May cause damage to organs through prolonged or repeated exposure.

### Prevention Statements

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P240 Ground and bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilating/lighting equipment.  
P242 Use non-sparking tools.  
P243 Take action to prevent static discharges.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.

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HamChem Ltd, 75 Ruffell Road, Hamilton, New Zealand. Phone: 07-974-4971 Email: [info@hamchem.nz](mailto:info@hamchem.nz) Web: [www.hamchem.nz](http://www.hamchem.nz)

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P280 Wear protective gloves/clothing and eye/face protection.

#### Response Statements

P301 + P310 IF SWALLOWED: Call a POISON CENTRE or Doctor if you feel unwell.

P330 Rinse mouth.

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P332 + P313 If skin irritation occurs: Get medical advice.

P362 Take off contaminated clothing and wash before re-use

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTRE or a Doctor if you feel unwell.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice.

P308 + P313 If exposed or concerned: Get medical advice.

P370 + P378 In case of fire: Use water fog or mist or alcohol-resistant foam to extinguish.

#### Storage Statement

P403 + P235 Store in well-ventilated place. Keep cool.

P405 Store locked up.

#### Disposal Statement

P501 Dispose of contents/container to approved waste facility in accordance with local regulations

<b>COMPOSITION &amp; INFORMATION ON INGREDIENTS</b>
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Chemical Entity	CAS No.	Proportion (% w/w)
Toluene	108-88-3	100

<b>FIRST AID MEASURES</b>
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Consult the National Poisons Centre, telephone 0800 764 766 [ 0800 POISON ] or a doctor in every case of suspected poisoning. If medical advice is needed, have product container or label at hand.

**INGESTION:** Rinse mouth with water and give water to drink. Do NOT induce vomiting. Call a Poison Centre or doctor immediately for advice.

If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

**INHALATION:** Move person to fresh air and keep warm and at rest. Call a Poison Centre or doctor immediately for advice. If breathing is difficult, give oxygen.

**SKIN:** Remove immediately all contaminated clothing and footwear. Wash affected area with plenty of water followed by soap and water. Get medical advice. Wash contaminated clothing/footwear before re-use.

**EYES:** Hold eyes open and rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do after the first 5 minutes. Continue rinsing for at least 15 minutes. Get medical attention if irritation persists.

**NOTES TO PHYSICIAN:** Treat symptomatically. Risk of aspiration into lungs resulting in chemical pneumonitis which may be fatal.

<b>FIRE FIGHTING MEASURES</b>
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**FLASH POINT:** 7°C

**FLAMMABLE LIMITS:** LFL: 1.1% v/v UFL: 7.1 % v/v

**EXTINGUISHING MEDIA:** Use water fog or mist or alcohol-resistant foam. Use dry chemical powder, carbon dioxide, sand or earth for small fires only. Do NOT use water in a jet.

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**FIRE & EXPLOSION HAZARDS:** Above flash point, vapour-air mixtures are explosive within the flammable limits given above. Contact with strong oxidizers may cause fire or explosion. Sensitive to static discharge. Avoid breathing smoke. Prevent extinguishing water from getting into the aquatic environment.

**SPECIFIC HAZARDS:** Cool fire exposed containers with large quantities of water.

**FIRE-FIGHTING EQUIPMENT:** Wear self-contained breathing apparatus and personal protection clothing.

<b>ACCIDENTAL RELEASE MEASURES</b>
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**SPILLS:** Highly flammable liquid. Vapour forms explosive mixture with air. Isolate hazard area and keep unnecessary and unprotected people away from area. Stay upwind and keep out of low-lying areas. Wear personal protective equipment. Avoid contact with skin and eyes. Shut off leak if safe to do so. Remove or isolate ignition sources. Contain spill. Avoid run off into drains or sewers. Do not contaminate watercourses or the ground. Take precautions against static discharge. Bond or ground (earth) all equipment. Ventilate contaminated area. For large spills (more than a drum), recover liquid and transfer by mechanical means to labelled salvage tank that can be sealed for recovery or disposal of product. Allow residues to evaporate. Water can be used to disperse vapours and to clean spill area although prevent water from entering sewers or drains. Remove any contaminated soil and dispose of safely by waste management company. For small spills, absorb with an appropriate material, e.g., vermiculite, and dispose of waste safely in a labelled sealed container for recovery or disposal. If contamination of drains, sewers or waterways occurs immediately notify Emergency Services (111).

**DISPOSAL:** Dispose of contaminated waste or product to an approved landfill in accordance with local regulations.

<b>HANDLING &amp; STORAGE</b>
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**HANDLING:** Read label before use. Use only in well-ventilated areas. Avoid breathing vapours or direct contact with product. Wear personal protective equipment. Remove ignition sources. Avoid sparks. Electrostatic charge may be generated during pumping with risk of fire. Restrict line viscosity to avoid generation of electrostatic discharge. Take precautions to use bonded or grounded (earthed) equipment. No Smoking. Do not use compressed air for filling, discharging or handling. Use only in well-ventilated area. Keep container closed when not in use. Wear personal protective equipment to prevent breathing of and contact with product. Wear gloves and protect eyes from splashes. Wash hands and exposed skin after handling.

**STORAGE:** Ensure all storage areas have adequate fire-fighting equipment. Store in closed original container in a secure cool dry well-ventilated place, away from sunlight, ignition sources, heat, incompatible substances, aerosols, other flammables, oxidizing agents, and corrosives, out of reach of children, and away from food, drink and animal foodstuffs. Take precautions to avoid accumulation of vapours in pits and confined spaces. Avoid contact with natural rubber, butyl rubber, EPDM, polystyrene, polyethylene, PVC, polypropylene and polyacrylonitrile.

<b>EXPOSURE CONTROLS &amp; PERSONAL PROTECTION</b>
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**EXPOSURE GUIDELINES:** NZ Workplace Exposure Standard (WES) have been set by Worksafe NZ (April 2022) for this substance.

Toluol (Toluene)      TWA: 20ppm – 75mg/m<sup>3</sup>; STEL: 100ppm – 377mg/m<sup>3</sup>

**ENGINEERING CONTROLS:** Use only in a well-ventilated area. A half-face filter mask suitable for organic gases and vapours is recommended for low concentration level exposures. Otherwise, full-piece organic vapour respiratory protective equipment is required. Where air-filtering respirators are unsuitable (e.g., air-borne concentrations are high, risk or oxygen deficiency, confined space) use positive pressure breathing apparatus.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):** Wear impervious protective clothing including safety shoes or boots. Wear appropriate chemical resistant gloves. Avoid contact with eyes. Wear chemical goggles if splash or aerosol/mist exposure risk. Refer to the relevant AS/NZ standards for appropriate personal protective equipment.

<b>PHYSICAL &amp; CHEMICAL PROPERTIES</b>
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<b>Form:</b>	Liquid
<b>Colour:</b>	Clear, colourless
<b>Odour:</b>	Aromatic benzene-like
<b>Boiling point (°C):</b>	111

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<b>Flash point (°C):</b>	7
<b>Flammability limits in air (%v/v):</b>	1.1 to 7.1
<b>Auto ignition temperature (°C):</b>	Not available
<b>Vapour pressure (mmHg at 20°C):</b>	22
<b>Density at 20°C, g/cc:</b>	0.86
<b>Solubility in water:</b>	0.05 g/100 ml (at 20°C)
<b>pH:</b>	Not available
<b>Vapour density (air =1):</b>	3.14
<b>Evaporation rate (nBuAc =1):</b>	2.24

<b>STABILITY &amp; REACTIVITY</b>
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**STABILITY (CONDITIONS TO AVOID):** Stable under normal storage and use conditions. Avoid heat, sparks, open flames and other ignition sources.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Strong oxidising agents and strong acids (e.g., nitric and sulphuric acid), chlorine, nitrogen tetroxide, some forms of plastics, rubber and coatings.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Dependent on conditions under which decomposition occurs; gases (carbon monoxide, carbon dioxide) will be evolved.

**HAZARDOUS POLYMERIZATION:** Not known to occur.

<b>TOXICOLOGICAL INFORMATION</b>
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**POTENTIAL HEALTH EFFECTS:** This section includes possible adverse effects, which might occur if this product is not handled in the recommended manner.

**INGESTION:** Harmful if swallowed. Symptoms may include abdominal spasms, fatigue, confusion, headache, dizziness and drowsiness. Aspiration into the lungs can cause chemical pneumonitis which can be fatal.

**INHALATION:** Harmful if inhaled. May cause irritation of upper respiratory tract. Symptoms of overexposure include fatigue, confusion, headache, dizziness and drowsiness. Other symptoms may include peculiar skin sensations such as pins and needles or numbness. Exposure to high concentration may cause unconsciousness and death.

**SKIN CONTACT:** Serious skin irritant. May be absorbed through skin.

**EYE CONTACT:** Severely irritating to eyes. Symptoms can include burning sensation, redness, swelling, and/or blurred vision.

**SYSTEMIC (OTHER TARGET ORGAN) EFFECTS:** If inhaled may cause adverse effects through prolonged or repeated exposure. Organs that may be affected include kidneys, blood system and central nervous system.

**CANCER INFORMATION:** Not classified as carcinogen.

**TERATOLOGY (BIRTH DEFECTS) AND REPRODUCTIVE DEFECTS:** Identified as suspected of damaging fertility or the unborn child.

**MUTAGENICITY (EFFECTS ON GENETIC MATERIAL):** Not a mutagen.

**Toxicity data:**

Oral, rat LD50 636 mg/kg b.w.  
Inhalation, LC50 (4hr) rat 12.5 – 28.8 mg/L

**Additional information:** Not available.

<b>ECOLOGICAL INFORMATION</b>
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**ENVIRONMENTAL FATE:** This product has been classified as being ecotoxic; harmful in the aquatic environment and to terrestrial vertebrates.

**MOVEMENT AND PARTITIONING:** Product has minimal solubility in water.

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**DEGRADATION AND PERSISTENCE:** Not expected to bio accumulate significantly and is readily biodegradable. Product is mobile in soil and may contaminate groundwater. Avoid contamination of drains and waterways. Oxidises by photo-chemical reactions in air.

**ECOTOXICOLOGY:** No EEL has been set for this substance.

**Ecotoxicity data:**

<i>Oncorhynchus mykiss</i>	EC50 (96 hr)	5.8 mg/L
<i>Daphnia magna</i>	EC50 (48 hr)	11.5 mg/L
<i>Selenastrum capricornutum</i>	EC50 (72 hr)	12.5 mg/L

<b>DISPOSAL CONSIDERATIONS</b>
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Recover and recycle product whenever possible. Dispose of waste in accordance with Regional Authority or local council bylaws. Ensure empty containers are vented and dry. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums. Send clean dry drums to recycler or metal scrap reclaimer. Do not use empty drums for storing other products.

<b>TRANSPORT INFORMATION</b>
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<b>UN Number:</b>	1294
<b>Proper Shipping name:</b>	Toluene
<b>Dangerous Goods Class:</b>	3
<b>Subsidiary Risk:</b>	N/A
<b>Packing group:</b>	II
<b>Hazchem Code:</b>	3[Y]E
<b>Marine Pollutant:</b>	No

<b>REGULATORY INFORMATION</b>
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**HSNO Classifications:** 3.1B, 6.1D (O), 6.1D (I), 6.3A, 6.4A, 6.8B, 6.9B

**EPA New Zealand Approval Code:** HSR001227; Toluene

<b>OTHER INFORMATION</b>
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**Key to abbreviations:**

CAS No. Chemical Abstracts Service Number  
EPA Environmental Risk Management Authority  
HSNO Hazardous Substances & New Organisms  
STEL Short Term Exposure Limit  
TWA Time Weighted Average  
WES Workplace Exposure Standard

**REFERENCES:**

Chemical Classification and Information database; [www.epa.govt.nz](http://www.epa.govt.nz)  
Supplier Safety Data Sheet

**End of SDS.**