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<h1>Toluene</h1>					
<b>Synonyms &amp; Trade Names</b> Methyl benzene, Methyl benzol, Phenyl methane, Toluol					
<b>CAS No.</b> 108-88-3	<b>RTECS No.</b> XS5250000 ( <a href="http://www.niosh-rtecs.org/XS501BDO.html">/niosh-rtecs/XS501BDO.html</a> )		<b>DOT ID &amp; Guide</b> 1294 130 ( <a href="http://wwwapps.tc.gc.ca/saf-sec-sur/3/erg-gmu/erg/guidepage.aspx?guide=130">http://wwwapps.tc.gc.ca/saf-sec-sur/3/erg-gmu/erg/guidepage.aspx?guide=130</a> ) ( <a href="http://www.cdc.gov/Other/disclaimer.html">http://www.cdc.gov/Other/disclaimer.html</a> )		
<b>Formula</b> C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub>	<b>Conversion</b> 1 ppm = 3.77 mg/m <sup>3</sup>		<b>IDLH</b> 500 ppm See: <a href="http://www.niosh.gov/IDLH/108883.html">108883 (/niosh/idlh/108883.html)</a>		
<b>Exposure Limits</b> <b>NIOSH REL</b> : TWA 100 ppm (375 mg/m <sup>3</sup> ) ST 150 ppm (560 mg/m <sup>3</sup> ) <b>OSHA PEL</b> † ( <a href="http://www.osha-slc.gov/nengapdxg.html">nengapdxg.html</a> ) : TWA 200 ppm C 300 ppm 500 ppm (10-minute maximum peak)			<b>Measurement Methods</b> <b>NIOSH 1500</b> ( <a href="http://www.niosh.gov/docs/2003-154/pdfs/1500.pdf">/niosh/docs/2003-154/pdfs/1500.pdf</a> ), <b>1501</b> ( <a href="http://www.niosh.gov/docs/2003-154/pdfs/1501.pdf">/niosh/docs/2003-154/pdfs/1501.pdf</a> ), <b>3800</b> ( <a href="http://www.niosh.gov/docs/2003-154/pdfs/3800.pdf">/niosh/docs/2003-154/pdfs/3800.pdf</a> ), <b>4000</b> ( <a href="http://www.niosh.gov/docs/2003-154/pdfs/4000.pdf">/niosh/docs/2003-154/pdfs/4000.pdf</a> ); <b>OSHA 111</b> ( <a href="http://www.osha.gov/dts/sltc/methods/organic/org111/org111.html">http://www.osha.gov/dts/sltc/methods/organic/org111/org111.html</a> ) ( <a href="http://www.cdc.gov/Other/disclaimer.html">http://www.cdc.gov/Other/disclaimer.html</a> ) See: <b>NMAM</b> ( <a href="http://www.niosh.gov/docs/2003-154/">/niosh/docs/2003-154/</a> ) or <b>OSHA Methods</b> ( <a href="http://www.osha.gov/dts/sltc/methods/index.html">http://www.osha.gov/dts/sltc/methods/index.html</a> ) ( <a href="http://www.cdc.gov/Other/disclaimer.html">http://www.cdc.gov/Other/disclaimer.html</a> )		
<b>Physical Description</b> Colorless liquid with a sweet, pungent, benzene-like odor.					
<b>MW:</b> 92.1	<b>BP:</b> 232°F	<b>FRZ:</b> -139°F	<b>Sol(74°F):</b> 0.07%	<b>VP:</b> 21 mmHg	<b>IP:</b> 8.82 eV
<b>Sp.Gr:</b> 0.87	<b>FL.P:</b> 40°F	<b>UEL:</b> 7.1%	<b>LEL:</b> 1.1%		
Class IB Flammable Liquid: Fl.P. below 73°F and BP at or above 100°F.					
<b>Incompatibilities &amp; Reactivities</b> Strong oxidizers					
<b>Exposure Routes</b> inhalation, skin absorption, ingestion, skin and/or eye contact					
<b>Symptoms</b> irritation eyes, nose; lassitude (weakness, exhaustion), confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); anxiety, muscle fatigue, insomnia; paresthesia; dermatitis; liver, kidney damage					
<b>Target Organs</b> Eyes, skin, respiratory system, central nervous system, liver, kidneys					
<b>Personal Protection/Sanitation</b> (See <a href="http://www.cdc.gov/niosh/npg/protect.html">protection codes (protect.html)</a> ) <b>Skin:</b> Prevent skin contact <b>Eyes:</b> Prevent eye contact <b>Wash skin:</b> When contaminated			<b>First Aid</b> (See <a href="http://www.cdc.gov/niosh/npg/firstaid.html">procedures (firstaid.html)</a> ) <b>Eye:</b> Irrigate immediately <b>Skin:</b> Soap wash promptly <b>Breathing:</b> Respiratory support <b>Swallow:</b> Medical attention immediately		

**Remove:** When wet (flammable)

**Change:** No recommendation

#### Respirator Recommendations

### NIOSH

#### Up to 500 ppm:

(APF = 10) Any chemical cartridge respirator with organic vapor cartridge(s)\*

(APF = 25) Any powered, air-purifying respirator with organic vapor cartridge(s)\*

(APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister

(APF = 10) Any supplied-air respirator\*

(APF = 50) Any self-contained breathing apparatus with a full facepiece

#### Emergency or planned entry into unknown concentrations or IDLH conditions:

(APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode

(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus

#### Escape:

(APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister

Any appropriate escape-type, self-contained breathing apparatus

[Important additional information about respirator selection \(pgintrod.html#mustread\)](#)

See also: [INTRODUCTION \(/niosh/npg/pgintrod.html\)](#) See ICSC CARD: [0078](#)

[\(/niosh/ipcsneng/neng0078.html\)](#) See MEDICAL TESTS: [0232 \(/niosh/docs/2005-110/nmedo232.html\)](#)

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