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<b>Benzene</b>					
<b>Synonyms &amp; Trade Names</b> Benzol, Phenyl hydride					
<b>CAS No.</b> 71-43-2	<b>RTECS No.</b> CY1400000 ( <a href="http://www.niosh-rtecs/CY155CCo.html">/niosh-rtecs/CY155CCo.html</a> )		<b>DOT ID &amp; Guide</b> 1114 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>6</sub>	<b>Conversion</b> 1 ppm = 3.19 mg/m <sup>3</sup>		<b>IDLH</b> Ca [500 ppm] See: 71432 ( <a href="http://www.niosh/idlh/71432.html">/niosh/idlh/71432.html</a> )		
<b>Exposure Limits</b> <b>NIOSH REL</b> : Ca TWA 0.1 ppm ST 1 ppm See Appendix A ( <a href="http://www.nengapdxa.html">nengapdxa.html</a> ) <b>OSHA PEL</b> : [1910.1028] TWA 1 ppm ST 5 ppm See Appendix F ( <a href="http://www.nengapdx.html">nengapdx.html</a> )			<b>Measurement Methods</b> <b>NIOSH</b> 1500 ( <a href="http://www.niosh/docs/2003-154/pdfs/1500.pdf">/niosh/docs/2003-154/pdfs/1500.pdf</a> ), 1501 ( <a href="http://www.niosh/docs/2003-154/pdfs/1501.pdf">/niosh/docs/2003-154/pdfs/1501.pdf</a> ), 3700 ( <a href="http://www.niosh/docs/2003-154/pdfs/3700.pdf">/niosh/docs/2003-154/pdfs/3700.pdf</a> ), 3800 ( <a href="http://www.niosh/docs/2003-154/pdfs/3800.pdf">/niosh/docs/2003-154/pdfs/3800.pdf</a> ); <b>OSHA</b> 12 ( <a href="http://www.osha.gov/dts/sltc/methods/organic/org012/org012.html">http://www.osha.gov/dts/sltc/methods/organic/org012/org012.html</a> ) ( <a href="http://www.cdc.gov/Other/disclaimer.html">http://www.cdc.gov/Other/disclaimer.html</a> ), 1005 ( <a href="http://www.osha.gov/dts/sltc/methods/validated/1005/1005.html">http://www.osha.gov/dts/sltc/methods/validated/1005/1005.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/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 to light-yellow liquid with an aromatic odor. [Note: A solid below 42°F.]					
<b>MW:</b> 78.1	<b>BP:</b> 176°F	<b>FRZ:</b> 42°F	<b>Sol:</b> 0.07%	<b>VP:</b> 75 mmHg	<b>IP:</b> 9.24 eV
<b>Sp.Gr:</b> 0.88	<b>Fl.P:</b> 12°F	<b>UEL:</b> 7.8%	<b>LEL:</b> 1.2%		
Class IB Flammable Liquid: Fl.P. below 73°F and BP at or above 100°F.					
<b>Incompatibilities &amp; Reactivities</b> Strong oxidizers, many fluorides & perchlorates, nitric acid					
<b>Exposure Routes</b> inhalation, skin absorption, ingestion, skin and/or eye contact					
<b>Symptoms</b> irritation eyes, skin, nose, respiratory system; dizziness; headache, nausea, staggered gait; anorexia, lassitude (weakness, exhaustion); dermatitis; bone marrow depression; [potential occupational carcinogen]					
<b>Target Organs</b> Eyes, skin, respiratory system, blood, central nervous system, bone marrow					

**Cancer Site** [leukemia]

**Personal Protection/Sanitation** (See protection codes (protect.html))  
**Skin:** Prevent skin contact  
**Eyes:** Prevent eye contact  
**Wash skin:** When contaminated  
**Remove:** When wet (flammable)  
**Change:** No recommendation  
**Provide:** Eyewash, Quick drench

**First Aid** (See procedures (firstaid.html))  
**Eye:** Irrigate immediately  
**Skin:** Soap wash immediately  
**Breathing:** Respiratory support  
**Swallow:** Medical attention immediately

**Respirator Recommendations**  
 (See Appendix E) (nengapdx.html)

**NIOSH**

**At concentrations above the NIOSH REL, or where there is no REL, at any detectable concentration:**

(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: [0015 \(/niosh/ipcsneng/neng0015.html\)](#) See MEDICAL TESTS: [0022 \(/niosh/docs/2005-110/nmed0022.html\)](#)

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