# Benzene $C_6H_6$


| Standard Lamp | Typical Range (ppmv) |
|---|---|
| 9.8 eV | 0.1 - 1000 |

Temperature Range: 2 - 40°C (36 - 104°F)

| Temp (°C) | 2-10 | 10-15 | 15-30 | 30-40 |
|---|---|---|---|---|
| Temp (°F) | 36-50 | 50-60 | 60-86 | 86-104 |
| Measure Time (sec) | 150 | 90 | 60 | 40 |
| Sample Vol. (mL) | 1125 | 675 | 450 | 300 |

Calibration should be performed at the same temperature as the measurement. It is preferable to recalibrate when changing batches.

**Humidity:** No effect on reading 0 - 95% RH. Humid, clean air drawn through the tube before measurement will reduce VOC capacity.

! Drawing humid air for extended periods or liquid water through the tubes may damage the instrument.

**Storage Life and Conditions**: Unopened tubes can be stored for 3 year in darkness at 5 - 25°C (40 - 77°F). Refrigeration is preferred. Open tubes should be used within one hour to avoid loss of capacity.

**Color Change:** Yellow → Brown → Green

The benzene reading may be high if the green color extends to more than 3⁄4 of the length. The tube may still have some capacity if there is no green color.

| Cross-Sensitivity Substance | Test Conc. (ppmv)* | Apparent Benzene Response | Substance | Test Conc. (ppmv)* | Apparent Benzene Response |
|---|---|---|---|---|---|
| Toluene | 400 | 0.1 | n-Hexane | 100# | 0.0 |
| o-Xylene | 200 | 0.0 | Cyclohexane | 10# | 0.4 |
| Ethylbenzene | 200 | 0.0 | n-Octane | 300 | 0.1 |
| Styrene | 100 | 0.0 | β-Pinene | 50 | 0.0 |
| Nitrobenzene | 100 | 0.0 | Ethanol | 50 | 0.0 |
| Phenol | 100# | 0.0 | Isopropanol | 100 | 0.0 |
| Chlorobenzene | 20 | 2.5 | Acetone | 100 | 0.0 |
| Dichlorobenzene | 50 | 0.1 | Cyclohexanone | 200 | 0.0 |
| Hydrogen Sulfide | 150 | 0.0 | Tetrahydrofuran | 100 | 0.0 |
| Methane | 25000** | 0.0 | Methyl t-butyl ether | 100 | 0.0 |
| Propane | 1000 | 0.0 | Ethyl acetate | 100 | 0.0 |
| Isobutane | 100 | 0.0 | Acrylonitrile | 100 | 0.0 |
| Isobutylene | 500 | 0.0 | Epichlorohydrin | 100 | 0.0 |
| 1,3-Butadiene | 300 | 0.0 | Trichloroethylene | 100 | 66 |
| n-Pentane | 1500 | 0.0 | Perchloroethylen | 50 | 38 |

- *Not necessarily the maximum allowable conc.
- **No effect on tube capacity. Propane and higher hydrocarbons do affect capacity.
- #Higher amounts may reduce benzene response.
- Each tube contains 3 mg of chromium compounds