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# Gas Detection Tube Data Sheet

**Toluene C<sub>7</sub>H<sub>8</sub>**



**No. 10-114-20**

	Extended Range	Standard Range	Extended Range
Range (ppmv)	5 - 150	10 - 300	20 - 600
No. of Pump Strokes	2	1	0.5
Sample Volume (mL)	200	100	50
Sample Time (min)	2 x 2	2	1.5
Correction Factor	0.5	1	2

Precision (Relative Standard Deviation)\*: ≤ ± 12%

Linearity with No. of Pump Strokes: r<sup>2</sup> = 0.994

Humidity: No effect 0 - 90% RH

Temperature Range: 0 - 40°C  
(32 - 104°F)

Temp (°C/°F)	0/32	10/50	25/77	40/104
Corr. Factor	1.2	1.0	1.0	1.1

Storage Life: 2 years in darkness at 5 - 25°C (40 - 77°F). Refrigeration preferred.

Color Change: White → Brown

Reaction Principle: C<sub>8</sub>H<sub>10</sub> + I<sub>2</sub>O<sub>5</sub> + H<sub>2</sub>SO<sub>4</sub> → I<sub>2</sub> + oxidation products

Cross-sensitivity: Substance	Concentration (ppmv)	Apparent Reading*
Benzene	95	110 green-brown
p-Xylene	100	40
o-Xylene	100	35
m-Xylene	100	30
Ethylbenzene	100	70
Styrene	100	10
Ethylene	100	0
Isobutylene	100	0
Isobutylene	2000	100 (faint)
Hexane	100	7 (faint)
CO	3000	0
CO <sub>2</sub>	15000	0
H <sub>2</sub> S	50	55 (faint ring)
NH <sub>3</sub>	50000	0
CH <sub>4</sub>	25000	0
SO <sub>2</sub>	2050	0

\*Data based on RAE pumps and tubes used in standard range.

Other Possible Interferences: Other aromatics and reducing agents.

Caution: Dispose of spent or expired tubes according to local regulations.  
Possibly hazardous materials are given under the section Reaction Principle.