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# Gas Detection Tube Data Sheet

## Ozone O<sub>3</sub>

No. 10-133-03

	Extended Range	Standard Range	Extended Range
Range (ppmv)	Do not extend	0.05 – 0.6	0.15 – 1.8
No. of Pump Strokes		5	1
Sample Volume (mL)		500	100
Sample Time (min)		5 x 2	2
Correction Factor		1	3

Precision (Relative Standard Deviation)\*: ≤ ±20%

Linearity with No. of Pump Strokes: r<sup>2</sup> = 0.990

Humidity: Calibration is based on approximately 50% relative humidity.

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

Temp (°C/°F)	0/32	10/50	20/68	40/104
Corr. Factor	0.74	1.0	1.0	1.1

Storage Life: 1 year in darkness at 5 - 25°C (40 - 77°F). Refrigeration preferred.

Color Change: Blue → White

Reaction Principle: 2O<sub>3</sub> + C<sub>16</sub>H<sub>10</sub>N<sub>2</sub>O<sub>2</sub> → 2C<sub>8</sub>H<sub>5</sub>NO<sub>2</sub> + 2O<sub>2</sub>

Cross-sensitivity: Substance	Concentration (ppmv)	Apparent Reading*
Cl <sub>2</sub>	<10	0
Cl <sub>2</sub>	≥10	~0.1 <sup>#</sup>
ClO <sub>2</sub>	1	entire tube <sup>#</sup>
CO	100	0
CO <sub>2</sub>	10,000	0
CH <sub>4</sub>	70,000	0
SO <sub>2</sub>	100	0
H <sub>2</sub> S	120	0
NO	5	0
NO <sub>2</sub>	1	0
Isobutylene	100	0
n-Hexane	100	0

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

<sup>#</sup>Slight discoloration and unclear demarcation

Other Possible Interferences: Bromine and other oxidants.

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