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Gas Detection Tube Data Sheet

n-Butane n-C₄H₁₀ No. 10-137-30

	Extended Range	Standard Range	Extended Range
Range (ppmv)	12.5– 700	25 - 1400	50 - 2800
No. of Pump Strokes	2	1	0.5
Sample Volume (mL)	200	100	50
Sample Time (min)	2 x 2.5	2.5	2
Correction Factor	0.5	1	2

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

Linearity with No. of Pump Strokes: r² >0.999

Humidity: No effect 5 - 100% RH.

Temperature Range: No effect 0 - 40°C (32 - 104°F).

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

Color Change: Yellow-Orange → Brown (greenish)

Reaction Principle: C₄H₁₀ + K₂Cr₂O₇ + H₂SO₄ → Cr(III) + Oxidation Products

Cross-sensitivity: Substance	Concentration (ppmv)	Apparent Reading*	Correction Factor
CH ₄	25000	0	-
Propane	500	~650 (l.brown)#	~0.8
Isobutane	100	20	~5
Isobutylene	1500	~15	~100
n-Pentane	200	80 (green)#	2.5
n-Hexane	1500	530 (green)#	2.8
CO	500	0	-
H ₂ S	500	90	5.6
Ethanol	1000	~3	>300
Acetone	1000	~9	>100
Methyl Ethyl Ketone	1000	~8	>100

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

Propane gives light brown reading with very indistinct endpoint, butane gives moderately sharp endpoint, and pentane and hexane give sharp endpoints.

Other Possible Interferences: Other hydrocarbons.

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