



RAE Systems, Inc.
1339 Moffett Park Dr.
Sunnyvale, CA 94089 USA

Telephone 408-752-0723
Tube Orders 1-888-723-8823
Web www.raesystems.com

Gas Detection Tube Data Sheet

Methyl Ethyl Ketone C₄H₈O No. 10-113-20

	Extended Range	Standard Range	Extended Range
Range (ppmv)	0.01 - 0.3%	0.02 - 0.6%	0.06 - 1.8%
No. of Pump Strokes	6	3	1
Sample Volume (mL)	600	300	100
Sample Time (min)	6 x 2	3 x 2	2
Correction Factor	0.5	1	3

Precision (Relative Standard Deviation)*: $\leq \pm 12\%$

Linearity with No. of Pump Strokes: $r^2 = 0.996$

Humidity: 85% RH increases the response by 15% compared to dry gas.

Temperature Range: 0 - 40°C (32 - 104°F)	Temp (°C/°F)	0/32	10/50	25/77	40/104
	Corr. Factor	1.4	1.3	1.0	0.7

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

Color Change: Orange → Black

Reaction Principle: $\text{CH}_3\text{COCH}_2\text{CH}_3 + \text{Cr(VI)} + \text{H}_2\text{SO}_4 \rightarrow \text{Cr(III)} + \text{Oxidation Prods.}$

<u>Cross-sensitivity:</u> Substance	Concentration (ppmv)	Apparent Reading*	Corr. Factor
Acetone	0.4%	0.5%	0.8
Methyl propyl ketone	1.0%	0.7%	1.4
Methyl isobutyl ketone	1.0%	0.49%	2.0
CO	1.5%	0	-
CO ₂	1.5%	0	-
CH ₄	2.5%	0	-
NH ₃	5.0%	>0.3% brown	-
H ₂ S	250	0.2% diffuse [#]	-
Ethyl Acetate	1.0%	>0.3% diffuse [#]	-
Hexane	0.24%	entire tube [#]	-
Isobutylene	0.20%	0.5%	0.4
Toluene	400	0.3% diffuse [#]	-

*Data based on RAE pumps and tubes used in standard range. [#]Faint black color.
Ketones can be distinguished by their darker stains and 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.