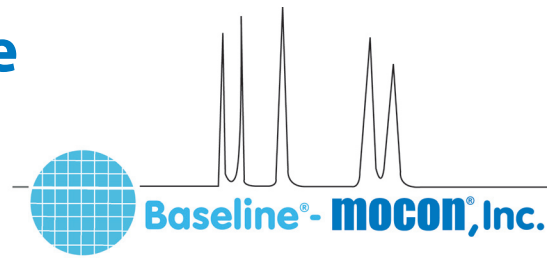


BevAlert™ 8900GC Application Note

Acetaldehyde, Benzene, Toluene, Ethylbenzene & Xylenes in CO₂

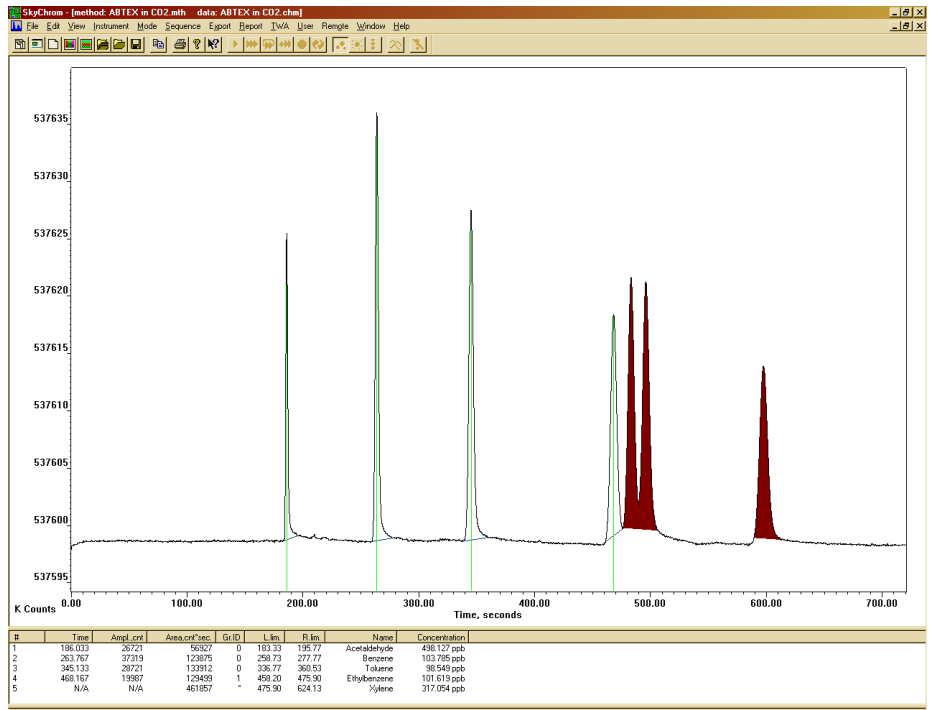


Application

The BevAlert Model 8900 provides direct measurement of Acetaldehyde, Benzene, Toluene, Ethylbenzene, and Xylenes (ABTEX) in Carbon Dioxide.

The instrument is utilized by Specialty Gas Manufacturers and the Food and Beverage Industry to monitor trace volatile organic compounds in CO₂ used in carbonated beverages.

The BevAlert Model 8900 employs a photoionization detector (PID). The ABTEX in the gas sample are physically separated using proprietary GC columns. A pre-cut column and an analytical column with timed backflush to vent is used to strip off moisture and heavier hydrocarbons. At sample injection, a fixed volume of sample is carried through the pre-cut column. The backflush is timed so that only the ABTEX and other similar compounds continue on to the analytical column. Contaminants on the pre-cut column are simultaneously backflushed to vent. Acetaldehyde, Benzene, Toluene, Ethylbenzene, and Xylenes are separated from potentially interfering components on the analytical column and elute to the detector for analysis.



Analysis

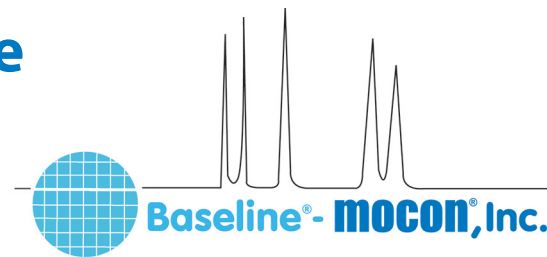
- Analysis Time: 720 seconds
- Detector: PID (FID or High-sensitivity PID Optional)
- Column: Capillary
- Oven Temperature: 85 °C, Nominal
- Carrier Gas: Nitrogen, 20 cc/min, Nominal

Features

- Direct measurement of Acetaldehyde, Benzene, Toluene, Ethylbenzene and Xylenes in CO₂
- Automatic calibration for unattended operation
- Automatic baseline adjustment for long-term stability
- Optional analog outputs for Acetaldehyde, Benzene, Toluene, Ethylbenzene, Xylene concentrations
- Analog output ranges are user selectable
- Concentration and diagnostic alarm relays
- Options for multipoint sampling
- RS-232 and optional LAN

BevAlert™ 8900GC Application Note

Acetaldehyde, Benzene, Toluene, Ethylbenzene & Xylenes in CO₂



Specifications

Lower Detection Limit: <2 ppb Benzene

Accuracy: 1% of Full-scale

Precision: 2% of Measured Value

Span Drift (24HR): <2% of Full-scale

Sample Flow Rate: 250-500cc/min, typical

Output:

Analog: (5) 0-20ma or 4-20ma loop power supplied, isolated. Selectable for: gas concentration, unintegrated detector signal. Options for up to 16 additional programmable 0-20ma, 4-20ma or voltage outputs: 0-1V, 0-5V, or 0-10V.

Digital: RS-232, optional Local Area Network

Relays: (5) User programmable relays for concentration and diagnostic alarms (1A @ 30Vdc). Options for up to 32 additional relays available.

Inputs: Optional digital input board for 3 contact closure inputs. Supports start analysis, start calibration, and analyze calibration gas sample.

This application note is an only an example based on customer or market specifications. These parameters are variable and therefore do not reflect all of the versatility and options of Series 8900 GC. Please contact Baseline regarding your specific application

A010.3

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