

# OPTIMIZE YOUR ANALYSIS OF VOCs IN WATER

The Measure of Confidence



## Agilent GC/MS VOC Application Kit

Health and safety concerns are driving global efforts to monitor water quality. Particularly, water contamination with volatile organic compounds (VOCs) of various origins is a high priority for regulatory agencies, since VOCs can cause both acute and chronic health problems.

For more than three decades, GC/MS with purge-and-trap (P&T) has been the preferred analytical technique for VOCs in water. However, analysts continue to be challenged by the large number of targets with differing chemical characteristics.

### Perform highly sensitive chromatography that exceeds ICAL requirements for published methods

Agilent's GC/MS VOC Application Kit gives your team the tools to quickly analyze trace target compounds in complex matrices. Its analytical conditions and MS tune parameters provide a unique approach to EPA methods 524.2, 524.3 and 8260B – making it easier for you to:

- Implement P&T conditions for EPA methods 524.2, 524.3 and 8260B
- Establish GC/MS method parameters for VOC Analysis
- Reliably satisfy USEPA requirements with our new automated tuning approach

The Agilent GC/MS VOC Application Kit includes the following components – so you can spend *less time* on method development and *more time* on validation:

- Accessory Kit, which includes analytical column, inlet liner, methods, and other materials needed for optimal performance
- Field-tested P&T parameters
- Automated tuning routine for 4-bromofluorobenzene (BFB)
- Recommended procedures for standards preparation and initial calibration (ICAL)



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# Increase the sensitivity, robustness, and stability of your GC/MS VOC analysis

Agilent's GC/MS VOC Application Kit lets you leverage your *new or existing* hardware to deploy methods developed by our chemists. Our innovative approach to standards preparation, P&T techniques, system tuning, and data reporting give you the advantages of:

- Increased tune stability for longer intervals between tuning
- MDL < 0.048 µg/L for most 524.2 compounds
- MDL < 0.060 µg/L for most 8260B compounds
- A calibration response factor with an average RSD of 8% for EPA 524.2 and 6.1% for EPA 8260B.

## Ordering information.

To order G7022A Agilent GC/MS VOC Application Kit, consult with your Agilent Account Manager or visit [www.agilent.com/chem](http://www.agilent.com/chem)

## Additional technical information.

- Optimized Volatile Organic Compound Analysis Using Agilent VOC Application Solution (5991-0896EN)
- Volatile Organic Compound Analysis Using Purge and Trap (5991-0029EN)

## Put your applications on the *fast track*

Contact your local Agilent Representative or Agilent Authorized Distributor at

[www.agilent.com/chem/contactus](http://www.agilent.com/chem/contactus)

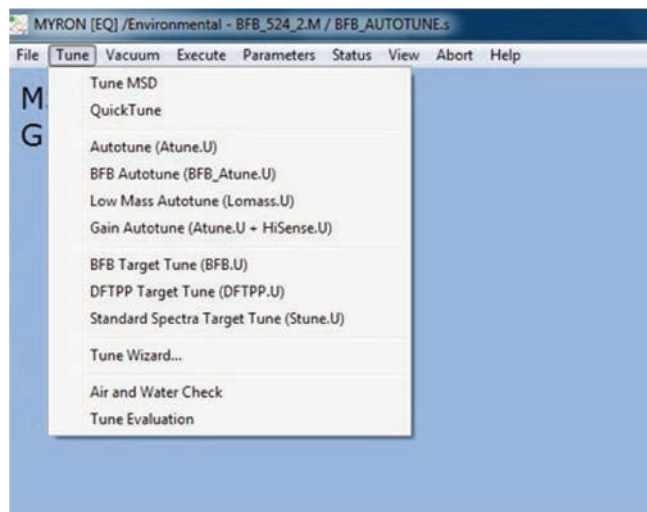
Or call **800-227-9770** (in the U.S. or Canada)

Visit [www.agilent.com/chem/appkits](http://www.agilent.com/chem/appkits) for a description of available Analyzers and Application Kits

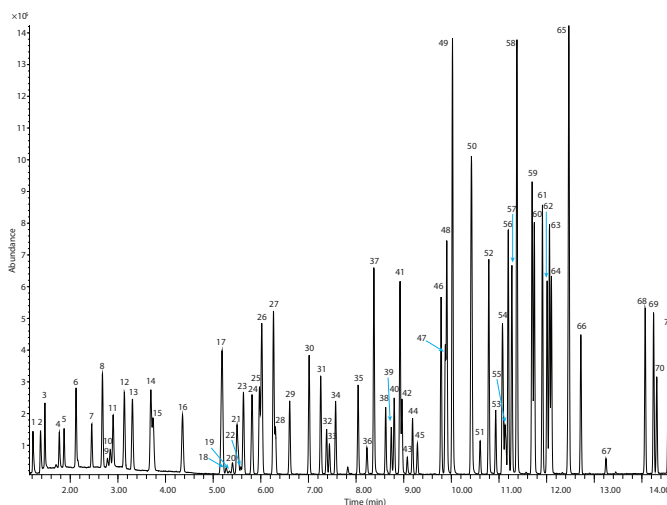
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## Achieving the lowest possible detection limits: GC/MS analysis of VOCs using P&T



*Tune and vacuum control view of the Agilent MSD Productivity ChemStation. BFB Autotuning provides long-term stability and improves sensitivity into the PPT range.*



*Total Ion Chromatogram of EPA Method 524.2 ICAL standard, acquired using the GC, MSD, and P&T parameters contained in Agilent's GC/MS VOC Application Kit. Excellent stability, robustness, and peak shape were achieved – and detection limits were lowered to PPB or PPT levels.*



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