

REFRESHINGLY INNOVATIVE SOLUTIONS



Chromatography Solutions for Soft Drink Analysis

Assuring Excellence in Every Sip

Monitoring the consistency and quality in soft drinks is essential to ensure a positive brand image and a loyal customer base. But principally, analysis is required to help guarantee product safety.

Whether you're performing process control and ingredient screening or quantitative testing for label claim analysis, our robust analytical testing protocols confirm quality – no mislabeling, no impurities, no nonsense.

Our full portfolio of chromatography solutions enables you to meet – and even exceed – your quality control goals with rapid, intuitive, and accurate testing solutions.

LC Solutions for Quality Assurance



GC Solutions, When Quantification is Everything



Rapid Screening for On-the-Spot Results



POP Quiz!

*Did you know the average soda drinker in America – one of the largest soft drink buyers in the world – consumes approximately **45 gallons every year**? Quality and safety are paramount.*

LC Solutions for Quality Assurance

Liquid chromatography (LC) is used for a variety of quality-control and safety applications during the concentrate manufacturing and the finished product bottling processes. LC systems help ensure soft drink labeling is accurate, additives are quantified for safety and compliance, and adulterants are identified.

Our LC 300 HPLC and UHPLC platforms feature user-friendly operation and the flexibility to select one of five detectors (PDA, MWD, UV/Vis, FL, and RI), as well as SimplicityChrom™, the industry's most intuitive chromatography data system software.

Liquid chromatography applications include:

- Additives analysis, including acesulfame K, saccharin, sodium benzoate, caffeine, potassium sorbate, and aspartame
- Dyes
- High-fructose corn syrup
- Organic acids
- Phosphoric acid
- Preservatives, including citric acid, benzoic acid, potassium sorbate, and sodium benzoate
- Vanillin



POP Quiz!

As research shows, too much caffeine can be harmful to the body. With LC and GC analysis, we're ensuring product quality and safety – together.



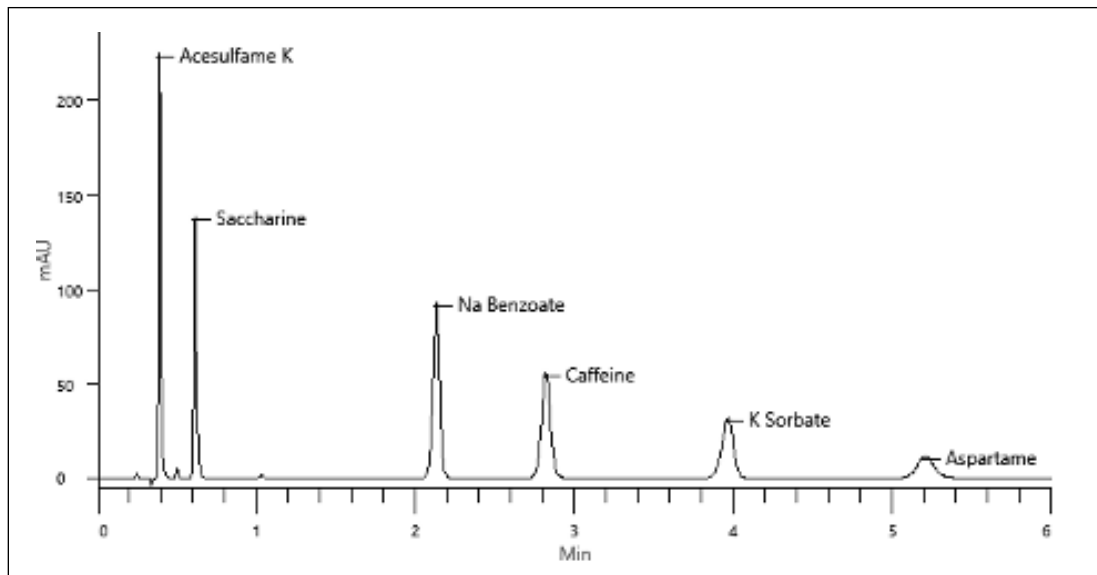
LC 300 HPLC and UHPLC

Our LC Solutions

Soda manufacturers and bottling plants are perpetually under pressure to ensure accurate label claims and soft drink safety before products hit store shelves.

One of the most routine LC applications in this industry is the analysis of additives – acesulfame K, saccharin, sodium benzoate, caffeine, potassium sorbate, and aspartame. Confirming the presence and measuring the concentration of these additives is critical to quality and consistency.

That's where our LC 300 platform comes in. All six common additives can be identified and quantified in under six minutes. How's that for efficient?



Example chromatogram obtained from the six-minute analysis of common additives in a soft drink for quality control and safety testing.



Learn more about the
LC 300 HPLC and UHPLC



GC Solutions – When Quantification Is Everything

From ensuring soft drinks are safe to confirming their label claims, accurate quantification of ingredients is a must. A bench-top GC solution offers the flexibility and precision you need to achieve top quality and meet production goals. Plus, intuitive software enables you to identify and quantify a sample's components at parts-per-billion levels.



POP Quiz! Did you know GC applications can quantify all the necessary ingredients and chemicals in soft drinks including:

- Acetaldehyde
- Acetone
- Benzene
- Bromodichloromethane
- Carbon dioxide purity
- Ethyl acetate
- Flavors and aromas
- Limonene
- Safrole and isosafrole
- Styrene
- Toluene
- Trihalomethanes



Clarus® SQ 8 GC/MS with TurboMatrix™ Headspace

Our GC System Portfolio

When it comes to flexibility, ease of use, and sensitivity, our GC instruments deliver the performance you need, day after day. In addition, it's compatible with virtually all sample introduction systems, including our world-class TurboMatrix.

Our portfolio of gas chromatography solutions is broad, deep, and can provide you with the information you need to meet your specific lab requirements, today and tomorrow.



Clarus® 590 and 690 GC Instruments

These bench-top GC systems are easy to operate and deliver the high performance, capacity, and throughput required for fast-paced production facilities. Pair your GC with a wide range of injectors and detectors – including ECD, TCD, FID, and FPD – for a solution that will grow with your analytical needs.



Clarus® SQ 8 GC/MS

Designed for efficient and reliable detection of known and unknown compounds, this system features the unique Clarifi™ detector. It delivers exceptional sensitivity by eliminating background noise and maximizing analyte signals, ensuring product quality.



TurboMatrix™ Headspace

When paired with a GC system, headspace samplers allow for fast, solvent-free extraction of volatile compounds from samples. This highly accurate method reduces the risk of human error associated with manual techniques.

Rapid Screening for On-the-Spot Results

Weighing in at 32 pounds, our **Torion® T-9** system may be small, but it's a portable powerhouse.

An ideal solution for rapid screening of ingredients and finished products, the Torion T-9 battery-powered gas chromatograph mass spectrometer (GC/MS) features a color touchscreen and simple three-button navigation. Even with minimal training, its easy-to-use operation allows you to see precise results in five minutes or less, enabling you to make real-time decisions before the product leaves your production lines.

Whether the Torion T-9 system moves across the manufacturing floor for in-process screening or has found a home on a countertop in your lab, our system is versatile, intuitive, and reliable – a necessity in fast-paced bottling and concentrate manufacturing facilities.



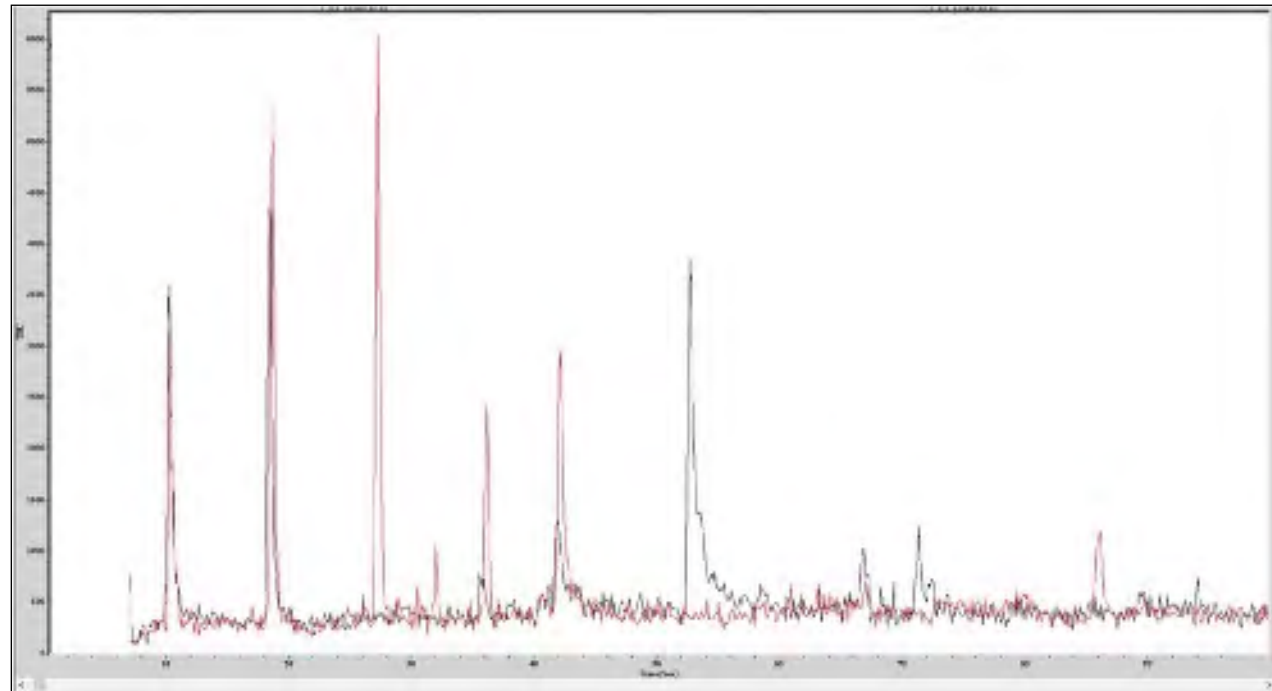
POP Quiz!

Soft drinks contain a complex mixture of flavorings, sweeteners, and preservatives that must be combined precisely to ensure product consistency and stability. Routine analysis is crucial to ensure the highest quality product from start to finish.



Torion T-9 GC/MS Features & Benefits

- Generates chromatograms with each peak corresponding to a unique ingredient in the sample
- Programmable library identifies the presence of contaminants for safety
- Validates the presence of key ingredients to confirm quality and formulation



Chromatograms from two samples generated by Torion in less than 100 seconds – the red corresponds to a finished product and the black is a previously analyzed finished product considered to be the ideal standard. A quick review shows that the red sample is not conforming to the ideal formulation.



Learn more about the
Torion T-9 Portable GC/MS



Better Consumables, Better Chromatography

From chromatography columns to application kits, our carefully crafted consumables promise reliable performance, control of operating costs, and maximized uptime of your instruments.

Whatever your application, we have a breadth of solutions designed to solve your separation and detection challenges. Flexible enough to handle all types of critical samples, our consumables are designed to meet your varied analytical requirements – and the skill levels of the people use them.



GC and LC Columns

Select from a wide range of columns for optimal accuracy, precision, efficiency, and cost savings.



Application Kits

Standards, reagents, and solvents designed for specific applications increase efficiency and ease of use.



Chromatography Essentials

Spare lamps, flowcells, valves, vials, or autosampler trays – we have you covered.

At Your Service

OneSource is the single-service organization that understands your needs around service and support, delivering a customized systems approach to your success.

- Asset Optimization –
Asset Genius Monitoring
- Multivendor Services
- Lab Relocation Services
- Instrument Qualification Services
- Laboratory Compliance
- Remote Support Services
- Education and Training





For more information on our solutions for the soft drink industry, [click here.](#)

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