A **SIMPLIFIED SOLUTION** FOR QUANTITATION OF ADDITIVES DURING SOFT DRINK MANUFACTURING

Waters

THE SCIENCE OF WHAT'S POSSIBLE.®

BY MINIMIZING THE POSSIBILITY OF AN OUT-OF-SPEC BATCH, A PRODUCTION FACILITY COULD AVOID THOUSANDS OF DOLLARS IN COSTS.

Achieving quality goals through accurate and consistent analysis with Waters Beverage Analysis Solutions.

Beverage manufacturers rely on strict quality control requirements to ensure that they consistently produce products that meet customer expectations both for taste and label claims.

Quality control laboratories supporting these manufacturing environments require simple, rapid analytical techniques that can be used to test product batches to confirm that only those batches that meet specifications are processed and released.

Waters offers solutions that can be seamlessly integrated into existing manufacturing quality control systems. This ensures that only those beverages of the highest quality and consistency are delivered to market – contributing to the best possible customer experience and strengthening high value brands.

Waters addresses the specialized needs of beverage manufacturers by offering simple, easy-to-use solutions that are designed to increase laboratory productivity, improve data quality, minimize costs, and enhance product consistency.

- **BEVERAGE ANALYSIS KIT**
- **LIQUID CHROMATOGRAPHY (LC) COLUMNS AND SYSTEMS**
- **MANUFACTURING EXCELLENCE AND TOTAL APPLICATION SUPPORT**

WATERS BEVERAGE ANALYSIS KIT

A comprehensive, easy-to-use kit for rapid quantitation of soft drink additives

Waters® Beverage Analysis Kit was specifically designed for the non-chemist, such as onsite bottler quality control workers, to perform quick and accurate analysis of commonly used additives (acesulfame-K, saccharin, caffeine, benzoate, sorbate, and aspartame) in drink formulations. This comprehensive kit is simple and easy to use, and can be used in conjunction with a rapid LC method to ensure final product quality and improve manufacturing efficiency.

KIT HIGHLIGHTS

- Rapid analysis of six additives in soft drinks with minimal sample preparation.
  High sample throughput.
- Pre-formulated mobile phase, wash solvent, and standards.
  Reduce analyst preparation time and minimize lab-to-lab or analyst-to-analyst variability.
- Environmentally-friendly solvents (ethanol based).
  Low toxicity, low disposal costs.
- Optimized methodology that is easy to follow.
  Rugged, repeatable methodology.
- Certificate of Analysis with uncertainty values and verification testing information.
  Confidence that the method performs consistently every time.
- Works with a variety of LC systems; results obtained in as little as 10 minutes by HPLC or 7 minutes by UPLC.®
  Flexible and adaptable to any laboratory set up.

LIQUID CHROMATOGRAPHY COLUMNS AND SYSTEMS

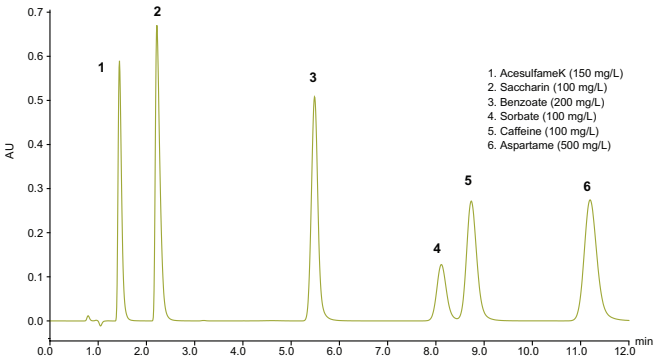
Waters HPLC and UPLC Columns.

Versatile chromatography solutions to fit your needs

Waters Beverage Analysis Kit can be used with a variety of LC columns and LC systems to best fit the needs of your analytical laboratory. The classic Breeze™ 2 HPLC System is ideal for any organization seeking a quality HPLC platform with a limited budget and minimal chromatography experience. The versatile Alliance® HPLC System is an industry-standard HPLC platform with an established track record of reliability, repeatability, productivity, and robustness, ensuring confidence in results.

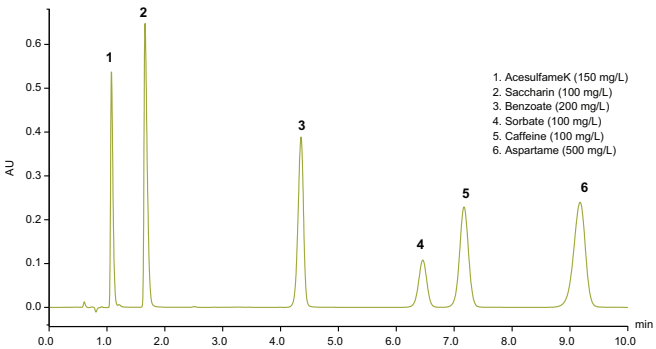
The latest generation of UPLC Systems, such as the ACQUITY UPLC® H-Class System, offers the flexibility and usability of HPLC while still achieving the highly efficient separations that only UPLC can provide, which means greater sample throughput, reduced cost per analysis, and better quality results. The Alliance HPLC System and the ACQUITY UPLC H-Class System utilize Waters industry-leading Empower® 3 Chromatography Data Software (CDS), which offers a powerful, scalable solution for food quality control departments. Empower's QuickStart option allows for a single-screen user interface for data collection, processing and reporting.

Breeze 2 HPLC System.



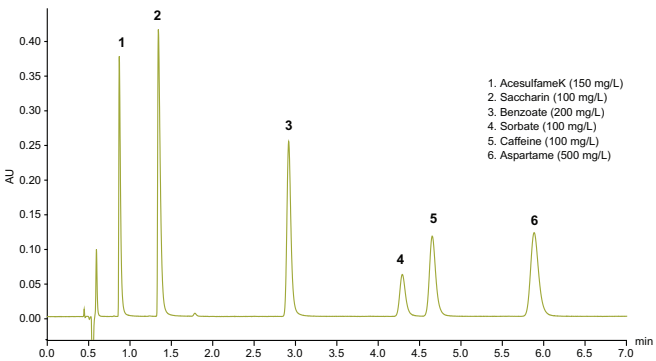
*Separation of the Beverage Analysis Standards using the XBridge® BEH Phenyl **XP** Column on the Breeze 2 HPLC System.*

Alliance HPLC System.



*Separation of the Beverage Analysis Standards using the XBridge BEH Phenyl **XP** Column on the Alliance HPLC System.*

ACQUITY UPLC H-Class System.



Separation of the Beverage Analysis Standards using the ACQUITY UPLC BEH Phenyl Column on the ACQUITY UPLC H-Class System.

MANUFACTURING EXCELLENCE AND TOTAL APPLICATION SUPPORT

Expertise you can count on

Waters understands that soft drink manufacturers need to protect their quality standards, while delivering consistent products. Waters developed the Beverage Analysis Kit as a simple, ready-to-use solution that can be easily integrated into existing manufacturing quality control systems. Significant development efforts were dedicated to develop a reliable and robust kit that provides ready-to-use standards, pre-formulated mobile phase and wash solvent, as well as an optimized chromatographic method that is easy to follow and implement.

The kit is manufactured under the highest quality standards, with the components extensively QC-tested together to ensure that they meet the rigorous specifications and produce consistent results every time.

Our technical expertise is available to offer you total application support, allowing you to minimize method development, reduce costly trouble-shooting time, and avoid product release delays. Ensure the quality of your product with Waters Beverage Analysis Kit.

WATERS GLOBAL SERVICES

Be assured.
Choose Waters Global Services.

Waters Global Services focuses on optimizing Waters products with superior service, support, upgrades, training, and Waters Quality Parts.®

Proven satisfaction

For thirteen consecutive years, an independent quality auditing firm ranked Waters Global Services best-in-class in providing expert technical knowledge, quick resolution of system issues, and process support.[1]

[1] *Achievement in Customer Excellence Award, CustomerSat, Inc., 2007-2013; NorthFace ScoreBoard Award,℠ Omega Management Group Corporation, 2001-2006.*

ORDERING INFORMATION

Description	Part Number
Waters Beverage Analysis Kit Contains six standards: Four 100-mL bottles containing acesulfame-K, saccharin, caffeine, benzoate, and sorbate in solution, Four bottles each with 50 mg aspartame in solid form, Four 1-L bottles of mobile phase, Four 1-L bottles of wash solvent; sufficient for 1 month of typical use	176002534
Individual Components Sold Separately	
Beverage Analysis Five Standards Solution (acesulfame-K, saccharin, caffeine, benzoate, and sorbate), 100 mL	186006008
Beverage Analysis Standard Solid (aspartame, 50 mg)	186006010
Beverage Analysis Mobile Phase Reagent (acetate buffer), 1 L	186006006
Beverage Analysis Wash Reagent (ethanol-based), 1 L	186006007
Low-Level Beverage Analysis Standards (50 mg/L caffeine and 50 mg/L acesulfame-K); for beverages with low caffeine content	186007231
High-Level Beverage Analysis Standards (250 mg/L caffeine and 250 mg/L acesulfame-K); for beverages with high caffeine content	186007232
Recommended LC Columns for Beverage Analysis; Sold Separately	
XBridge BEH Phenyl ***XP*** Column, 2.5 µm, 4.6 x 50 mm (for use on HPLC or UPLC systems)	186006073
ACQUITY UPLC BEH Phenyl Column, 1.7 µm, 2.1 x 100 mm (for use on UPLC systems)	186002885

Literature References	Literature Code
Soft Drink Analysis with Waters XBridge BEH ***XP*** Columns (Application Note)	720004589EN
Rapid Analysis of Soft Drinks Using the ACQUITY UPLC H-Class System with the Waters Beverage Analysis Kit (Application Note)	720004016EN
Ensuring Compositional Accuracy During Soft Drink Manufacturing (Case Study)	720004489EN

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