

A Fast and Sensitive LC/MS/MS

Method for the Measurement of PPCP Compounds in Water

Need a sensitive, dependable, flexible, and robust method for the routine determination of PPCP compounds in drinking, ambient, and waste water?



The presence of Pharmaceutical and Personal Care Product compounds in drinking water has become an area of immense public concern and research by water suppliers, regulatory agencies, and engineering firms. Agilent is very aware of these challenges and not only provides the most sensitive system for these answers, but also has developed an excellent analytical method in collaboration with leading researchers in the field. This method has been developed for over 30 (figure 1) of the most recognized PPCP compounds and will have you up and running and collecting reliable data quickly.

Agilent's 1290 UHPLC and 6460 Triple Quadrupole Mass Spectrometer delivers excellent sensitivity for Pharmaceutical and personal care product compounds from water. This performance is leveraged by Agilent's industry proven reliability and robustness for utmost productivity. With the use of the 6460's Jet Stream ESI Technology, this system

provides the ideal LC/MS/MS platform for your samples (figure 2, 3).

Industry leading MassHunter software enables a sample workflow for the routine and precise quantitation of PPCP compounds. Calibration curves, QCs, and sample data can be quickly assessed for linearity and accuracy. Processed data can be viewed in a variety of user-defined formats or exported directly into a LIMS.

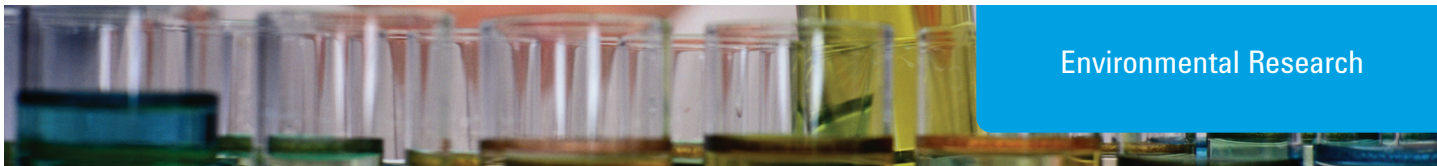


Key Benefits

- Agilent 6460 Triple Quad technology is the most sensitive available for PPCP analysis.
- Agilent method with standard operating procedure will have you analyzing the lowest possible levels of PPCP compounds quickly.
- Method includes over 30 of the most common PPCP compounds as well as compounds of current interest like BPA.
- MassHunter software is very powerful and easy to master, providing excellent data review features and easy, flexible data exporting.
- Flexible system configuration will deliver excellent results for other environmental applications such as acid herbicides, perfluorinated compounds (PFOS/PFOA) and pesticides.
- Agilent is your trusted partner in environmental testing.

Our measure is your success.





Compound	Drug Type	LOD Jetstream 6460 (µg/L) Instrument LOD	Method LOQ based on 100-mL sample (ng/L)	Compound	Drug Type	LOD Jetstream 6460 (µg/L) Instrument LOD	Method LOQ based on 100-mL sample (ng/L)
Acetaminophen	Analgesic OTC	600	5	Lamotrigine	Bipolar, Anti-epileptic	2000	20
Albuterol	Bronchodilator	500	5	Meprobamate	Anxiolytic	5000	25
Atenolol	Antihypertensive	1000	10	Metoprolol	Antihypertensive	1000	10
Azithromycin	Antibiotic	6000	30	Oxolinic Acid	Antibiotic	300	2
Bupropion	Antidepressant	600	5	Propranolol	Antihypertensive	1000	10
Caffeine	Stimulant	1000	5	Sucralose-Na Adduct	Sweetener	10,000	50
Carbamazepine	Anticonvulsant	200	1	Sulfadimethoxine	Antibiotic	500	5
Clarithromycin	Antibiotic	500	5	Sulfamethoxazole	Antibiotic	2000	10
Codeine	Analgesic-Narcotic	1000	10	Thiabendazole	Fungicide	500	5
Cotinine	Nicotine-Metabolite	500	5	Trimethoprim	Antibiotic	5000	25
DEET	Insect Repellent	500	5	Negative Ion			
Dehydronifedipine	Antianginal Metabolite	300	2	Bisphenol A	Plasticizer	10,000	50
Diazepam	Anxiolytic	1000	10	Gemfibrozil	Anti-inflammatory	5000	25
Diclofenac	Anti-inflammatory	2000	20	Ibuprofen	Anti-inflammatory	5000	25
Diltiazem	Vasodilator	2000	10	Naproxen	Anti-inflammatory	2000	20
1,7-Dimethylxanthine	Caffeine Metabolite	6000	30	Triclocarban	Antibacterial	1000	10
Diphenhydramine	Antihistamine	500	5	Triclosan	Antibacterial	5000	25
Erythromycin	Antibiotic	3000	20				

Figure 1: Compound list from the method with limits of detection

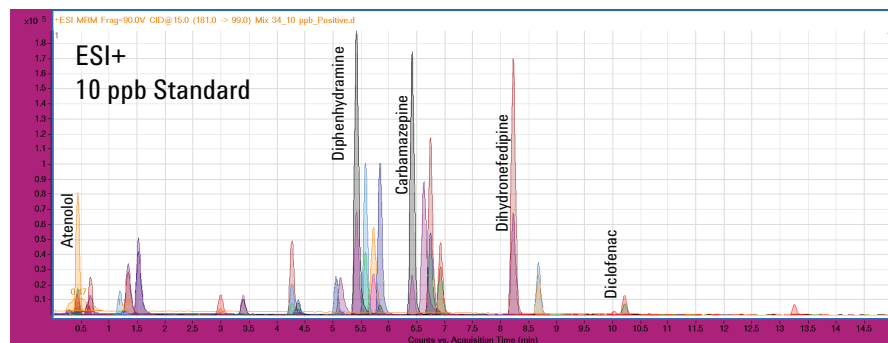


Figure 2: The 10 ppb positive ion standard

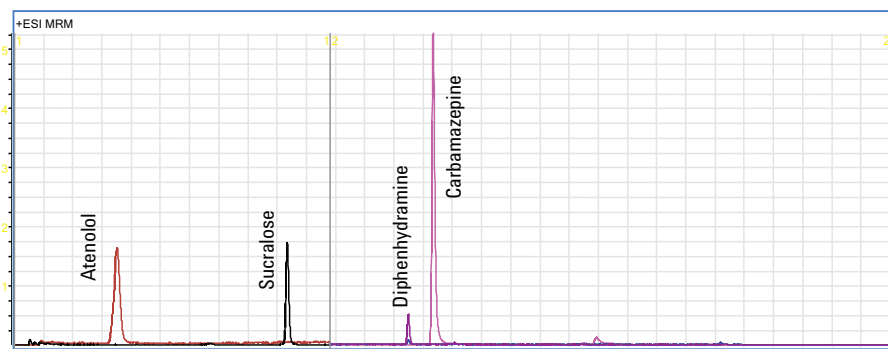


Figure 3: Actual river water sample from the mid-western United States

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www.agilent.com/chem

Email:
info_agilent@agilent.com

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This information is subject to change without notice.