

West Sacramento Laboratory – ASTM D7065-06: Nonylphenols, Octylphenol, Nonylphenol Ethoxylates and Bisphenol-A by GC/MS

Method Application:

The method is used to determine trace concentrations of several Nonylphenols, Octylphenol, Nonylphenol ethoxylates and Bisphenol-A (also known as BPA) in water matrices. Data reporting limits are on the order of 1 to 20ug/L with method detection limits ranging from 0.26 to 3.2ug/L.

Market Application

The method is designed for engineers or monitoring entities who are required to test for fugitive Nonylphenols, Octylphenol, Nonylphenol ethoxylates and BPA, considered to be endocrine disrupting compounds, at trace levels for compliance. BPA, which is a byproduct from plastics manufacturing, has been identified in baby bottles and other mainstream products. This method has been used to support pilot studies that determine PPCP removal efficiencies of different process applications targeting different water sources including well water, ground water, surface water, and estuary water.

Advantages:

This method employs liquid/liquid extraction using NaCl to efficiently extract and isolate target analytes, and utilizes GC/MS instrumentation in Single Ion Monitoring (SIM) mode.

| Nonylphenols/Ethoxylates/Bisphenol-A (GCMS) | | |
|---|-----------|------------|
| Analyte | RL (ug/L) | MDL (ug/L) |
| Bisphenol-A | 1 | 0.32 |
| Nonylphenol Diethoxylate (Tech.) | 20 | 1.95 |
| Nonylphenol Monoethoxylate (Tech.) | 10 | 3.2 |
| p-Nonyphenol (Tech.) | 5 | 1.6 |
| p-tert-Octylphenol | 1 | 0.32 |
| para-n-Nonylphenol | 1 | 0.26 |

For more information on West Sacramento's new method capability, please contact:

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