

# J.T. Baker® Brand ULTRA LC/MS

J.T. Baker® ULTRA LC/MS solvents are designed to meet the needs of the most demanding ultra-high-pressure liquid chromatography (UHPLC) and mass spectrometry research and analytical testing applications, such as proteomics, drug discovery, pharmacokinetics and clinical research. This grade of solvents is intended to extend the useful life of UHPLC columns by significantly reducing particles and minimizing the occurrence of erroneous peaks caused by the formation of metal adducts or the presence of organic impurities, such as phthalates and polyethylene glycol (PEG).

## Improved Particle Filtration

J.T. Baker® ULTRA LC/MS solvents are filtered through 0.1 µm filters providing extremely low particles, which extends column life, reducing instrument downtime and maintenance cost.

## Advanced Suitability Testing

Function applicable suitability testing with both Electrospray positive and negative modes is performed on J.T. Baker® ULTRA LC/MS solvents to ensure mass spectrometry performance. A positive mode specification has been set using reserpine at 25 ppb, and a negative mode specification has been established using 4-nitrophenol at a 25 ppb, maximum. The improved testing strengthens detection of extraneous organic impurities resulting in:

- Minimal baseline noise
- Reduced ionization suppression
- Improved sensitivity to both small- and large-molecule detection



## Reduced Trace Metals

J.T. Baker® ULTRA LC/MS solvents are packaged in 1 L borosilicate bottles, minimizing the leaching of trace metal impurities over time (vs. traditional amber glass bottles).

Solvents packaged in borosilicate bottles are ideal for applications susceptible to metal adduct interferences.

Through statistical process control, critical control parameters are monitored to ensure consistent product quality from lot to lot.

Low trace metal impurities provide the following benefits:

- Reduced metal adduct formation
- Improved analyte identification
- Reliable, consistent, reproducible results

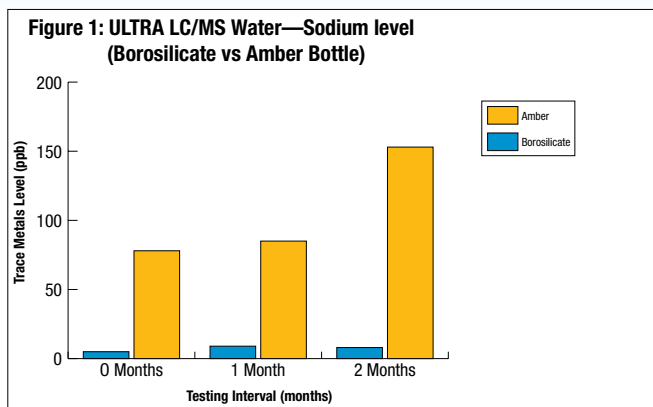


Figure 1 contrasts the sodium leaching for water packaged in amber bottles to borosilicate bottles over a two month time interval.

Description	Grade	Size	Avantor Product Number	Fisher Scientific Cat. No.
Water	ULTRA LC/MS	1 L Schott® DURAN® Borosilicate glass bottle	9823-02	02004557
Acetonitrile	ULTRA LC/MS	1 L Schott® DURAN® Borosilicate glass bottle	9853-02	02002173
Methanol	ULTRA LC/MS	1 L Schott® DURAN® Borosilicate glass bottle	9863-02	02003340

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