

# Product profile

## J.T.Baker® ULTRA LC/MS™ Grade Solvents

Avantor™ Performance Material's new grade of J.T.Baker ULTRA LC/MS solvents is 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 new 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

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 to ensure mass spectrometry performance. The positive mode specification has been set using 25 ppb as reserpine. 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

ULTRA LC/MS solvents are packaged in 1 Liter borosilicate bottles, minimizing the leaching of trace metal impurities over time vs traditional amber glass bottles. Utilizing the technique of statistical process control, critical control parameters are monitored to ensure consistent product quality from lot to lot.

The reduced metals provide the following benefits:

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

Although solvents packaged in amber glass bottles are suitable for some LC/MS applications, the applications susceptible to metal adduct interferences will benefit from these solvents.

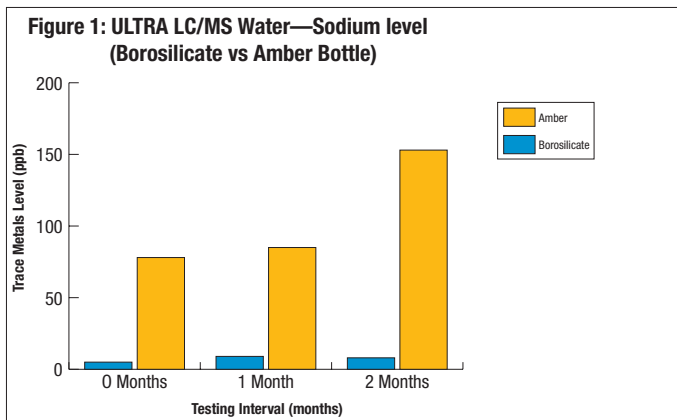


Figure 1 contrasts the sodium leaching for water packaged in amber bottles to borosilicate bottles over a two month time interval.

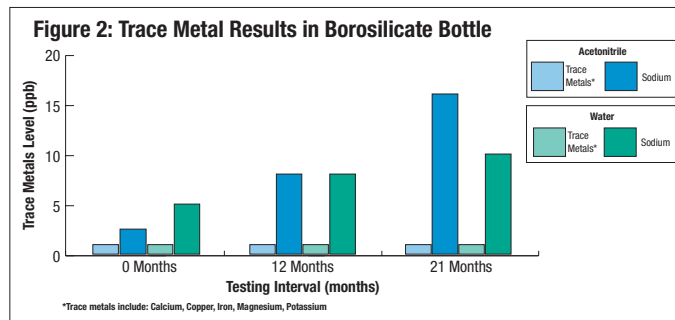


Figure 2 illustrates the consistently low trace metal levels for products packaged in borosilicate bottles over a two year period.

Product Number	Description	Grade	Size
9823-01	Water	ULTRA LC/MS	2 × 1 L kit
9823-02	Water	ULTRA LC/MS	6 × 1 L case
9853-01	Acetonitrile	ULTRA LC/MS	2 × 1 L kit
9853-02	Acetonitrile	ULTRA LC/MS	6 × 1 L case
9863-01	Methanol	ULTRA LC/MS	2 × 1 L kit
9863-02	Methanol	ULTRA LC/MS	6 × 1 L case

**ISO** Phillipsburg, NJ 9001:2008 & 14001:2004  
 Paris, KY 9001:2008  
 Mexico City, Mexico 9001:2008  
 Deventer, Holland 9001:2008 & 14001:2004  
 Selangor, Malaysia 9001:2008

### About Avantor™ Performance Materials

Avantor Performance Materials manufactures and markets high-performance chemistries and materials around the world under several respected brand names, including the J.T.Baker®, Macrom™, Rankem™, Diagnova™, and POCH™ brands.

Avantor products are used in a wide range of industries. Our biomedical and life science solutions are used in academic, industry and quality control laboratories for research, pharmaceutical production and medical lab testing, while our electronics solutions are used in the manufacturing of semiconductors, photovoltaic cells and flat panel displays. Based in Center Valley, Pennsylvania (USA), Avantor is owned by an affiliate of New Mountain Capital, LLC.

For additional information please visit [www.avantormaterials.com](http://www.avantormaterials.com) or follow [www.twitter.com/avantornews](https://twitter.com/avantornews)



### Ordering Information and Assistance

**Customer Service and Technical Service**  
 TOLL FREE: +1-855-AVANTOR (+1-855-282-6867)  
 OUTSIDE OF U.S. TEL: +1-610-573-2600  
 FAX: +1-610-573-2610  
 E-MAIL: [info@avantormaterials.com](mailto:info@avantormaterials.com)  
[www.avantormaterials.com](http://www.avantormaterials.com)

Our Web site features ASK Avantor™ which includes live chat capabilities with customer service representatives.  
[www.avantormaterials.com/askavantor](http://www.avantormaterials.com/askavantor)

Avantor Performance Materials, Inc.  
 3477 Corporate Parkway  
 Suite #200  
 Center Valley, PA 18034 USA

Lit # 9013

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### Worldwide Locations

**North America: Avantor Performance Materials, Inc.**  
 3477 Corporate Parkway  
 Suite #200  
 Center Valley, PA 18034 USA  
 TOLL FREE: +1-855-AVANTOR (+1-855-282-6867)  
 OUTSIDE OF U.S. TEL: +1-610-573-2600  
 FAX: +1-610-573-2610

**China: Avantor Performance Materials Trading (Shanghai) Co., Ltd.**  
 Room 501, Block E, Poly Plaza,  
 No.18, Dongfang Road  
 Pudong New Area, Shanghai 200120 China  
 TEL: +86-21-5878 3226  
 FAX: +86-21-5877 7253

**India: J.T.Baker India Private Limited**  
 425-426, Chintamani Plaza  
 Andheri Kurla Road  
 Chakala  
 Andheri (East)  
 Mumbai — 400 099 India  
 TEL: +91-22-4215 2458  
 FAX: +91-22-4215 2465

**Malaysia: Avantor Performance Materials, Sdn. Bhd. (formerly Mallinckrodt Baker, Sdn. Bhd.)**  
 A-1201-2, 12th Floor,  
 Kelana Brem Tower 1  
 Jalan SS7/15, Kelana Jaya  
 47301 Petaling Jaya, Selangor, Malaysia  
 TEL: +60-3-7803 0378  
 FAX: +60-3-7803 0405 / 7804 5427

**Mexico: Avantor Performance Materials, S.A. de C. V.**  
 Plomo 2  
 Fracc. Industrial Esfuerzo Nacional Xalostoc  
 CP 55320 Ecatepec, Estado de Mexico, Mexico  
 TEL: +52-55-5699-0250  
 FAX: +52-55-5755-2585

**Netherlands: Avantor Performance Materials, B.V.**  
 Teugseweg 20, 7418 AM Deventer  
 P.O. Box 1, 7400 AA Deventer  
 The Netherlands  
 TEL: +31-570-687500  
 FAX: +31-570-687574