



## ABRAXIS® Microcystin Congener Standard Mix (EPA 544)

Product No. 520014

### Introduction

In accordance with EPA Method 544, "Determination of Microcystins and Nodularin in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)"<sup>1</sup>, laboratories monitoring drinking water sources for total microcystins and nodularins are required to include specific congener standards in each analysis batch. The congeners listed in the method are Microcystin-LA, -LF, -LR, -LY, -RR, -YR, and Nodularin. The ABRAXIS® Microcystin Congener Standard Mix (EPA 544) provides a mix of these seven congener standards for use in fulfilling the requirements of the method.

### Storage

Store the mixed standard frozen at  $\leq -20^{\circ}\text{C}$ . The standards may be used until the expiration date on the box. Consult local, state, and federal regulations for proper disposal of all reagents.

### Reagents Provided

5 x 1 mL vials of Microcystin-LA, -LF, -LR, -LY, -RR, -YR, and Nodularin mixed standard in Methanol, HPLC-Grade

### Instructions for Use

The mixed standard is provided ready-to-use. Before diluting to desired calibration curve concentrations as per the method, consult the Certificate of Analysis (CoA) for each lot to review the LC-MS/MS-characterized concentrations in ppb of each individual congener. **Individual congener concentrations may vary; be sure to review the CoA for each lot prior to diluting!**

### References

- 1) Shoemaker, J; Tettenhorst, D; Delacruz, A. *Determination of Microcystins and Nodularin in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)*. U.S. Environmental Protection Agency 2015; Washington, DC EPA 600-R-14-474
- 2) Bhatia, M; Rose, C.M; Yun, T.S; Foss, A.J; Kang, D; & Seo, Y.Y. *Optimization of Extraction Methods for Quantification of Microcystin in Drinking Water Treatment Residuals: Implications for Safe Land Application*. SSRN 5127150
- 3) Foss A.J; Aubel M.T; Gallagher B; Mettee N; Miller A; Fogelson S.B. *Diagnosing Microcystin Intoxication of Canines: Clinicopathological Indications, Pathological Characteristics, and Analytical Detection in Postmortem and Antemortem Samples*. *Toxins (Basel)* 2019 (8) 456; doi:10.3390/toxins11080456

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