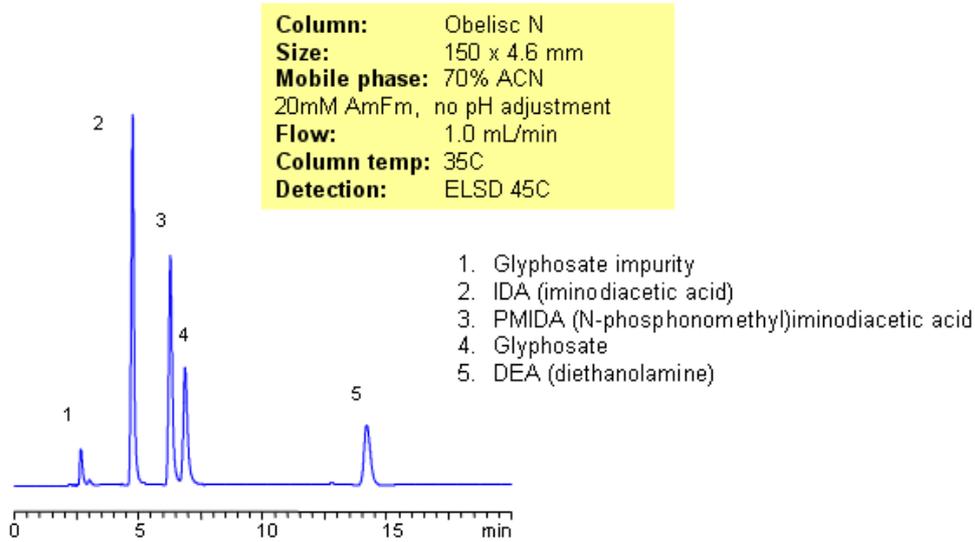


HPLC Separation of Glyphosate Reaction Intermediates and Impurities



Glyphosate and intermediates/impurities of production are separated on an Obelisc N HILIC/ion-exchange column by a combination of HILIC and ion-exchange mechanism. Method can be used in analysis of glyphosate, iminodiacetic acid, (N-phosphonomethyl)-iminodiacetic acid, diethanolamine and related impurities in reaction mixtures, waste and ground waters. Detection techniques are LC/MS, ELSD, CAD and UV.

SIELC has developed the Obelisc™ columns, which are mixed-mode and utilize Liquid Separation Cell technology (LiSC™). These cost-effective columns are the first of their kind to be commercially available and can replace multiple HPLC columns, including reversed-phase (RP), AQ-type reversed-phase, polar-embedded group RP columns, normal-phase, cation-exchange, anion-exchange, ion-exclusion, and HILIC (Hydrophilic Interaction Liquid Chromatography) columns. By controlling just three orthogonal method parameters - buffer concentration, buffer pH, and organic modifier concentration - users can adjust the column properties with pinpoint precision to separate complex mixtures.

Method Parameters

Column	Obelisc N, 4.6x150 mm, 5 µm, 100 Å
Mobile Phase	MeCN/H2O
Buffer	Ammonium Formate
Flow Rate	1.0 mL/min
Detection	ELSD

Quelle: <https://sielc.com/Application-HPLC-Separation-of-Glyphosate-Reaction-Intermediates-and-Impurities>