



# HPLC & UHPLC Columns

## Application Note: LC-ENV601

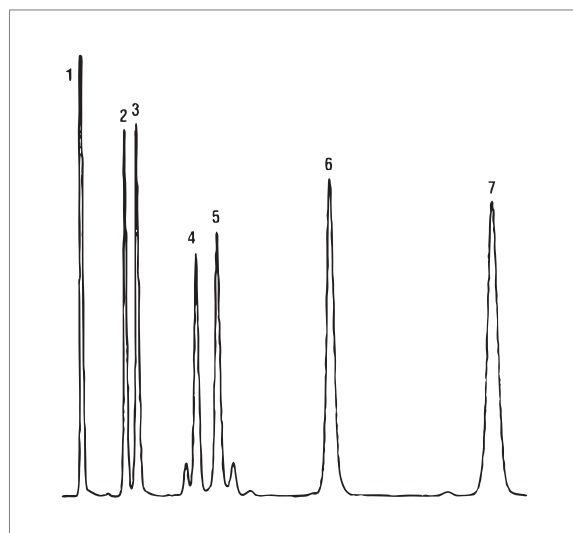
### Analysis of Phenoxyacid Herbicides

#### Introduction

Phenoxyacid herbicides are used to control agricultural and aquatic plants. Whilst not considered to be highly toxic, phenoxyacid herbicides are routinely monitored in raw and drinking waters. This Application Note describes an HPLC method for analysing phenoxyacid herbicides using a TELOS® Fluoro Octyl 5µm HPLC column.

#### HPLC Conditions

HPLC Column: TELOS Fluoro Octyl 5µm 15cm x 4.6mmid  
Part Number: 3062-5-150-046



#### Analytes

1. Phenoxyacetic Acid
2. o-chlorophenoxyacetic Acid
3. p-chlorophenoxyacetic Acid
4. 2,3 dichlorophenoxyacetic Acid
5. 2,4 dichlorophenoxyacetic Acid
6. 2,4,5 dichlorophenoxyacetic Acid
7. 2,4,5 dichlorophenoxypropionic Acid

#### HPLC Conditions

Mobile Phase: 35/65 v/v Acetonitrile/25mm Phosphate Buffer & 25mm Sodium Perchlorate, pH 3  
Flow Rate: 1ml/min  
Detection: 225nm  
Temperature: 25°C  
Injection Volume: 5µl

#### TELOS Fluoro Octyl

Analysts occasionally encounter difficult separations for which selectivity or reproducibility are not obtained easily using traditional C8 and C18 phases. Such separations might require the use of novel or selective phases that interact with analytes in a different manner. One class of selective or novel phases that have been used for a variety of separations are fluorinated phases. Fluorinated phases can provide different elution orders, leading to enhanced selectivity for difficult to separate compounds. In addition, fluorinated phases also offer the possibility of more simple mobile phases, avoiding the use of extreme pH conditions and complex mobile phases.

Kinesis offer a comprehensive range of TELOS and TELOS Commercial Equivalent HPLC & UHPLC Columns. For further information please visit your local Kinesis website shown at the bottom of this application note.

#### UNITED KINGDOM

Kinesis Ltd  
Tel: +44 (0)1480 212122  
Fax: +44 (0)1480 212111  
E-mail: [sales@kinesis.co.uk](mailto:sales@kinesis.co.uk)  
Web: [kinesis.co.uk](http://kinesis.co.uk)

#### GERMANY, SWITZERLAND & AUSTRIA

Kinesis GmbH (formerly Abimed)  
Tel: +49 (0)2173 89 05-0  
Fax: +49 (0)2173 89 05-77  
Email: [sales@kinesisgmbh.de](mailto:sales@kinesisgmbh.de)  
Web: [kinesisgmbh.de](http://kinesisgmbh.de)

#### USA & CANADA

Kinesis Inc  
Tel (toll free): (866) 934-6353  
Tel: (518) 289 5817  
Fax: (518) 289 5818  
Email: [sales@kinesis-usa.com](mailto:sales@kinesis-usa.com)  
Web: [kinesis-usa.com](http://kinesis-usa.com)

#### AUSTRALIA & NEW ZEALAND

Kinesis Australia Pty Ltd  
Tel: +61 (0)7 3829 3996  
Fax: +61 (0)7 3829 3997  
Email: [sales@kinesis-australia.com.au](mailto:sales@kinesis-australia.com.au)  
Web: [kinesis-australia.com.au](http://kinesis-australia.com.au)

