Certificate of Analysis

Dr. Ehrenstorfer

Reference Materials for Residue Analysis

Product Identification

10001000 Abamectin

CA (10E,14E,16E,22Z)-(1R,4S,5'S,6S,6'R,8R,12S,13S,20R,21R,24S)-6'[(S)-secbutyl]-21,24-

IUPAC (10E,14E,16E,22Z)-(1R,4S,5'S,6S,6'R,8R,12S,13S,20R,21R,24S)-6'[(S)-secbutyl]-21,24-

Formula

Mol.Weight

CAS No. 71751-41-2

Expiry Date 17.12.2013

Lot Number 21205

Store at -18 °C ±4 °C

Please note: The expiry date is valid under recommended storage conditions only.

Toxicological Data

R Code 20-28-50

S Code 36/37/39-45-60-61

LD50 (Rats female/male in mg/kg) 1.5

Physical Data

Phase crystalline solid

Color colourless

Melt.Range dec.155.4 °C

Vapour pressure <200nPa at °C

Solubility in water N/A g/l at °C

Boiling Range (lit.)

Analytical Data

Detection: HPLC/DAD

Column: ReproSil 100 C18 5µ 250x3

Inj.-Vol.: 10.00 µl

Flow: 0.5 ml/min

Ret.-Time:

Method Details:

Acetonitrile:H2O 9:1

Identity: UV, RT

Comment Purity was confirmed by external standard method.
Mixture of isomeres, RT 4.32: B1a (95.5 %); RT3,62 B1b (3.4%).
The appearance of further isomeres is possible.
Short expiry, for immediate use only.

Water Content 1.8 % Determined by Karl-Fischer Titration

Det. Purity 95.0 % Tolerance/Uncertainty +/- 1.0 %

The uncertainty/tolerance of this standard is calculated in accordance with the EURACHEM/CITAC Guide - Quantifying Uncertainty in Analytical Measurement - Second Edition. The uncertainty given is the expanded combined uncertainty and represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The expanded uncertainty is U which is Uc(y)*K, where K is the coverage factor at the 95% confidence level (K=2). The expanded uncertainty is based on the combination of uncertainties associated with each individual operation involved in the preparation of this product.

Certified on 17.12.2012

by A. Storr

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Data File V:\DAD1\201212KW50\10001000-21.D
Sample Name: 21212AL 21205

14.12.12
J. Müller

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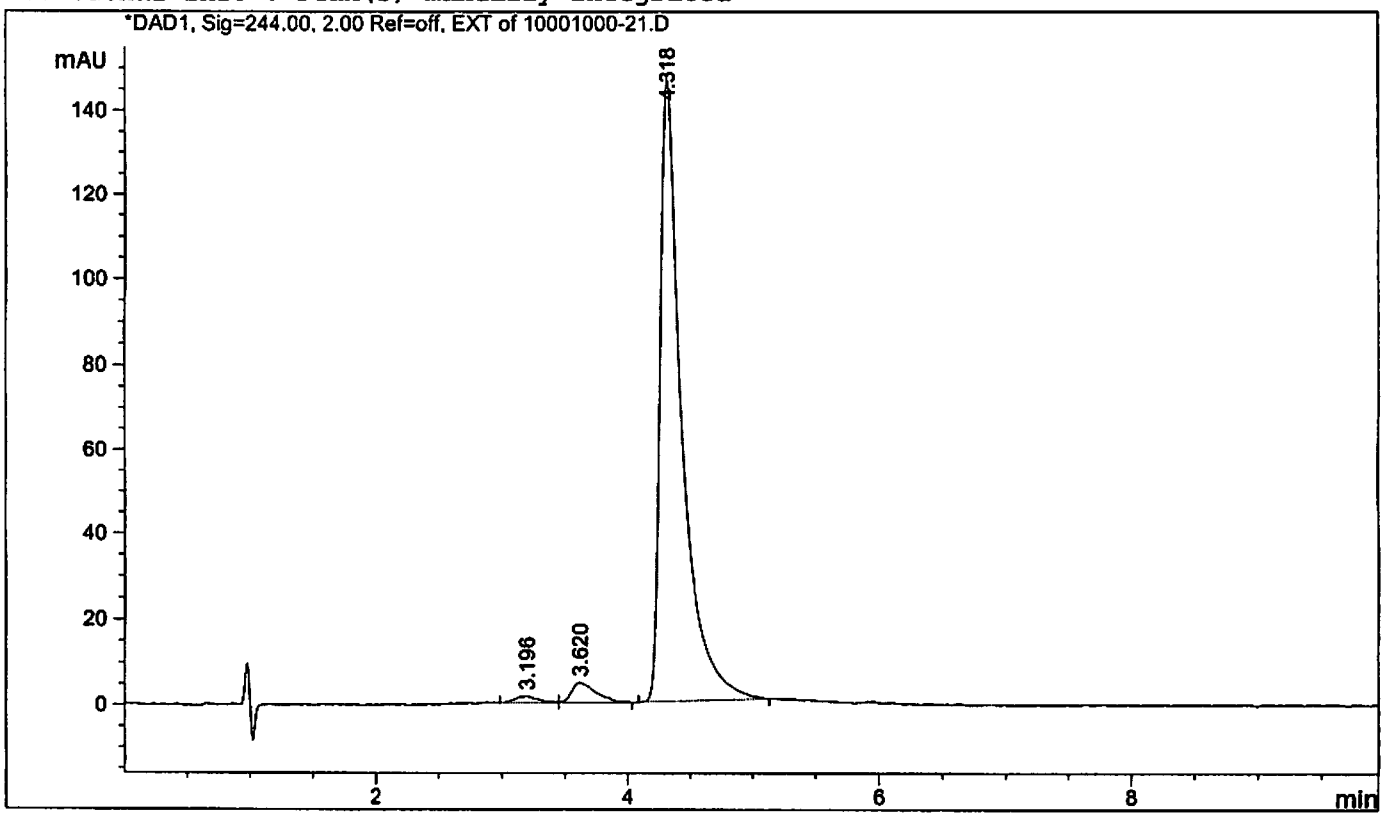
==========================================================================
Acq. Operator    : DAD1                          Seq. Line :  30
Acq. Instrument  : DAD1                           Location : Vial 7
Injection Date   : 13.12.2012 22:56:12                 Inj :   1
                                                Inj Volume : 10.000 µl
Acq. Method      : D:\CHEM32\1\METHODS\91K_10MIN.M
Last changed     : 27.04.2012 11:01:50
Analysis Method  : V:\DAD1\METHODS\91K_10MIN.M
Last changed     : 14.12.2012 10:34:58
                   (modified after loading)
Method Info      : Acetonitrile : Water 9 :1

Sample Info      : Abamectin

Additional Info : Peak(s) manually integrated
```

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==========================================================================
                        Area Percent Report
==========================================================================

Sorted By             :      Retention Time
Multiplier:                   :      1.0000
Dilution:                     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1, Sig=244.00, 2.00 Ref=off, EXT
 Signal has been modified after loading from rawdata file!
```

Peak #	RetTime [min]	Sig	Type	Area [mAU*s]	Height [mAU]	Area %
1	3.196	1	BV	19.31946	1.56165	1.0590
2	3.620	1	VB	62.70169	4.68637	3.4371
3	4.318	1	BB	1742.21667	146.15562	95.5038
Totals :				1824.23782	152.40364	