Certificate of Analysis

ISO Guide 34 Reference Material

Product Number: PSM-105-H
Lot Number: CM-5587

Lot Issue Date: 29-Oct-2015
Expiration Date: 30-Nov-2017

Product Name: LC Pesticide Solution #6

Description:
This Reference Material (RM) was gravimetrically prepared in accordance with ISO Guide 34 and under ULTRA Scientific's ISO 9001 registered quality system. The neat materials used for this product have been verified by ULTRA's ISO 17025 laboratory and under ULTRA's ISO Guide 34 accreditation. The analyte concentrations were verified by ULTRA's ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at the 95% confidence level, is reported below.

Analyte	CAS#	Analyte Lot	Calculated Value	True Value	Traceability & Method
acephate	030560-19-1	RM07358	50.1 µg/mL	48.9 ± 0.1 µg/mL	NW07013;GC/FID
acetamiprid	135410-20-7	RM02657	50.2 µg/mL	51.4 ± 0.2 µg/mL	NW07013;LC/DAD
amitraz	033089-61-1	RM01497	50.2 µg/mL	49.6 ± 0.5 µg/mL	NW07013;LC/DAD
boscalid	188425-85-6	RM06699	50.0 µg/mL	49.8 ± 0.5 µg/mL	NW07013;LC/DAD
cadusafos	095465-99-9	RM09758	50.1 µg/mL	51.3 ±0.3 µg/mL	NW07013;LC/DAD
chlorpyriphos	002921-88-2	RM09586	50.0 µg/mL	50.7 ± 0.2 µg/mL	NW07013;LC/DAD
cyproconazole	094361-06-5	RM09618	49.9 µg/mL	50.2 ± 0.3 µg/mL	NW07013;LC/DAD
diazinon	000333-41-5	RM10440	50.2 µg/mL	51.1 ± 0.1 µg/mL	NW07013;LC/DAD
dichlorvos	000062-73-7	RM10844	50.0 µg/mL	49.0 ± 0.2 µg/mL	NW07013;LC/DAD
difenoconazole	119446-68-3	RM10425	50.1 µg/mL	51.2 ± 0.2 µg/mL	NW07013;LC/DAD
diflubenzuron	035367-38-5	RM02949	50.1 µg/mL	49.5 ± 0.6 µg/mL	NW07013;LC/DAD
diniconazole	083657-24-3	RM09979	50.0 µg/mL	49.6 ± 0.5 µg/mL	NW07013;LC/DAD
edifenphos	017109-49-8	RM10900	50.0 µg/mL	54.7 ± 0.3 µg/mL	NW07013;LC/DAD
ethoprop (ethoprofos)	013194-48-4	RM09752	50.0 µg/mL	49.8 ± 0.5 µg/mL	NW07013;LC/DAD
etrimfos	038260-54-7	RM10388	50.0 µg/mL	51.0 ± 0.1 µg/mL	NW07013;LC/DAD
fenbuconazole	114369-43-6	RM01755	49.9 µg/mL	50.6 ± 0.6 µg/mL	NW07013;LC/DAD
fenhexamid	126833-17-8	RM09174	50.0 µg/mL	50.8 ± 0.7 µg/mL	NW07013;LC/DAD
fenoxycarb	079127-80-3	RM09049	50.1 µg/mL	51.6 ± 0.5 µg/mL	NW07013;LC/DAD
fenthion	000055-38-9	RM10005	50.1 µg/mL	51.1 ± 0.2 µg/mL	NW07013;LC/DAD
flubendiamide	272451-65-7	RM03021	50.2 µg/mL	51.2 ± 0.3 µg/mL	NW07013;LC/DAD
fluquinconazole	136426-54-5	RM06873	50.0 µg/mL	51.1 ± 0.6 µg/mL	NW07013;LC/DAD
guthion (azinphos-methyl)	000086-50-0	RM06810	50.2 µg/mL	50.2 ± 0.1 µg/mL	NW07013;LC/DAD
haloxyfop (free acid)	069806-34-4	RM09807	50.1 µg/mL	50.5 ± 0.8 µg/mL	NW07013;LC/DAD
hexaconazole	079983-71-4	RM07076	50.1 µg/mL	50.6 ± 0.6 µg/mL	NW07013;LC/DAD
hexaflumuron	086479-06-3	RM06483	50.1 µg/mL	49.1 ± 0.2 µg/mL	NW07013;LC/DAD
metconazole	125116-23-6	RM09745	50.0 µg/mL	50.5 ± 0.8 µg/mL	NW07013;LC/DAD
tebuconazole	107534-96-3	RM06441	50.0 µg/mL	49.8 ± 0.5 µg/mL	NW07013;LC/DAD

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER
ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

250 Smith Street North Kingstown, Rhode Island 02852 **www.agilent.com/quality**

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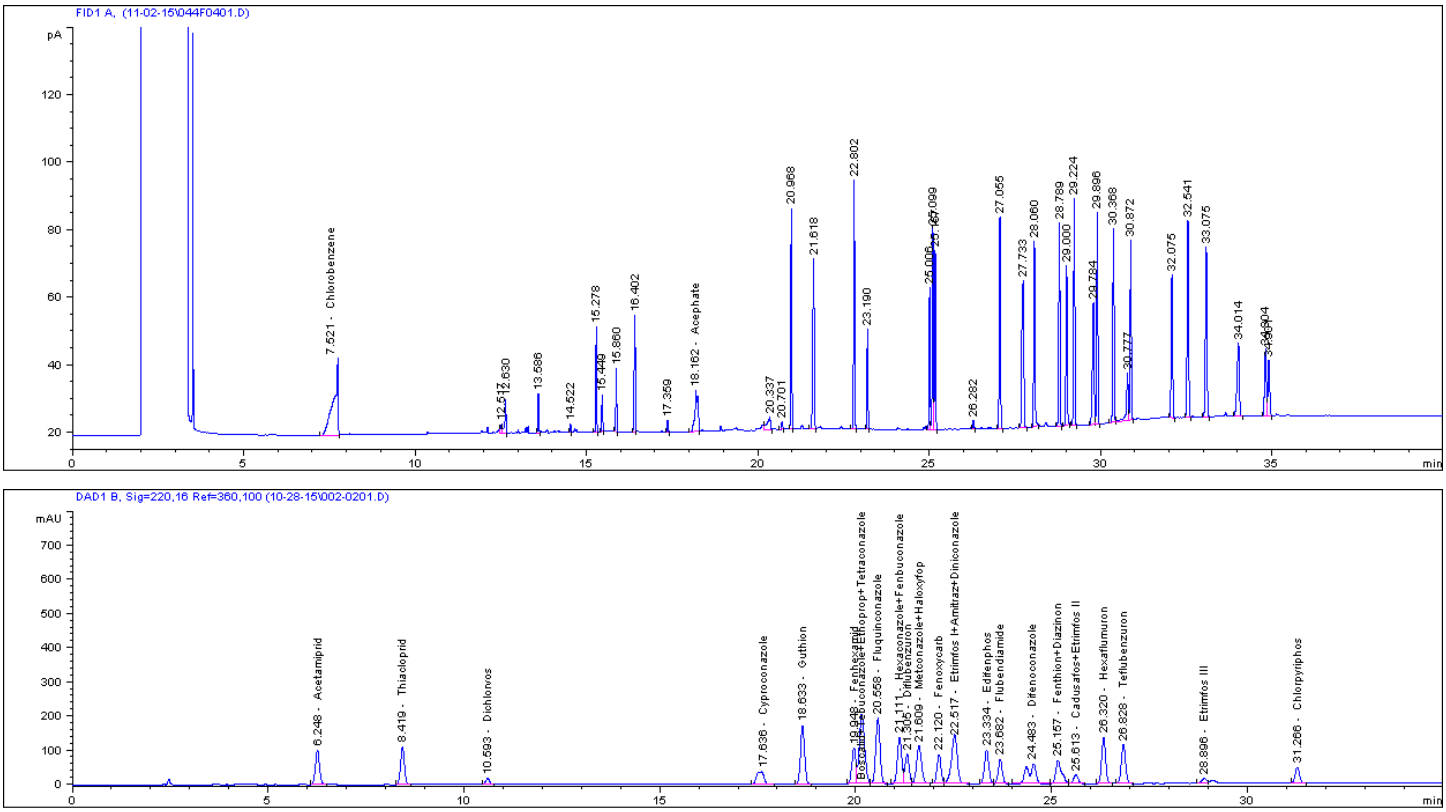
teflubenzuron	083121-18-0	RM10517	50.2 µg/mL	48.9 ± 0.2 µg/mL	NW07013;LC/DAD
tetraconazole	112281-77-3	RM10548	49.9 µg/mL	49.8 ± 0.5 µg/mL	NW07013;LC/DAD
thiacloprid	111988-49-9	RM10422	50.1 µg/mL	51.2 ± 0.2 µg/mL	NW07013;LC/DAD

Solvent: Acetonitrile

Storage: Store Refrigerated (2° - 8°C)



Traceability:
Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, ISO 9001, ISO 17025, and ISO Guide 34. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 819.

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Estimation of Uncertainties:
The true value is reported, with its uncertainty value calculated at the 95% confidence level.

Homogeneity:
This RM was formulated and unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening and should be processed without delay for the true value to be valid within the stated uncertainties. Each unit contains slightly more than the stated labeled volume to facilitate transfer of the material for testing.

Should crystallization occur after refrigeration, gentle warming (<40°C) and shaking of the container is usually sufficient to re-dissolve the material. If this is unsuccessful, an ultrasonic bath may be used. Solutions containing volatile components (such as gases) should be chilled prior to opening to minimize headspace problems.

Hazards:
Refer to the Safety Data Sheet for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid, within the measurement uncertainty specified, until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
The real-time, long term stability of the RM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, ULTRA Scientific will notify the purchaser.

William J. Leary
Vice President, QA/RA