

Certificate of Analysis

ISO Guide 34 Reference Material

Product Number: PSM-105-E
Lot Number: CM-5573

Lot Issue Date: 27-Oct-2015
Expiration Date: 30-Nov-2017

Product Name: LC Pesticide Solution #3

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
benfuresate	068505-69-1	RM09040	50.0 µg/mL	49.9 ± 1.2 µg/mL	NW06969;LC/DAD
cafenstrole	125306-83-4	RM10041	50.1 µg/mL	50.6 ± 1.1 µg/mL	NW06969;LC/DAD
carpropamid	104030-54-8	RM10421	50.2 µg/mL	50.9 ± 1.1 µg/mL	NW06969;LC/DAD
cyclosulfamuron	136849-15-5	RM10448	50.1 µg/mL	51.0 ± 1.0 µg/mL	NW06969;LC/DAD
daimuron	042609-52-9	RM08234	50.0 µg/mL	50.0 ± 1.0 µg/mL	NW06969;LC/DAD
diafenthion	080060-09-9	RM10069	50.0 µg/mL	50.6 ± 1.4 µg/mL	NW06969;LC/DAD
dimepiperate	061432-55-1	RM10156	50.2 µg/mL	50.4 ± 1.1 µg/mL	NW06969;LC/DAD
dimethametrin	022936-75-0	RM10075	50.2 µg/mL	51.0 ± 1.1 µg/mL	NW06969;LC/DAD
dithiopyr	097886-45-8	RM05494	50.0 µg/mL	50.5 ± 1.4 µg/mL	NW06969;LC/DAD
esprocarb	085785-20-2	RM01730	49.9 µg/mL	49.7 ± 1.0 µg/mL	NW06969;LC/DAD
fenoxanil	115852-48-7	RM10399	49.9 µg/mL	51.5 ± 1.1 µg/mL	NW06969;LC/DAD
fentrazamide	158237-07-1	RM01617	50.1 µg/mL	50.6 ± 1.0 µg/mL	NW06969;LC/DAD
fluopicolide	239110-15-7	RM09767	49.9 µg/mL	51.6 ± 1.0 µg/mL	NW06969;LC/DAD
forchlorfenuron (CPPU)	068157-60-8	RM09756	50.2 µg/mL	50.3 ± 0.9 µg/mL	NW06969;LC/DAD
gibberellic acid	000077-06-5	RM10362	50.1 µg/mL	52.4 ± 1.2 µg/mL	NW06969;LC/DAD
isoprazam	881685-58-1	RM07363	50.1 µg/mL	49.6 ± 1.0 µg/mL	NW06969;LC/DAD
metamifop	256412-89-2	RM09742	50.0 µg/mL	49.7 ± 1.0 µg/mL	NW06969;LC/DAD
pentoxazone	110956-75-7	RM07133	50.0 µg/mL	49.8 ± 1.4 µg/mL	NW06969;LC/DAD
pyraclofos	089784-60-1	RM10653	50.2 µg/mL	50.4 ± 1.0 µg/mL	NW06969;LC/DAD
pyraclostrobin	175013-18-0	RM07164	50.1 µg/mL	50.6 ± 1.0 µg/mL	NW06969;LC/DAD
pyribenzoxim	168088-61-7	RM09868	49.9 µg/mL	49.7 ± 1.0 µg/mL	NW06969;LC/DAD
pyributicarb	088678-67-5	RM09845	50.2 µg/mL	50.0 ± 1.1 µg/mL	NW06969;LC/DAD
pyrifthalid	135186-78-6	RM09500	49.9 µg/mL	50.0 ± 1.0 µg/mL	NW06969;LC/DAD
quinmerac	090717-03-6	RM10603	50.1 µg/mL	51.6 ± 1.4 µg/mL	NW06969;LC/DAD

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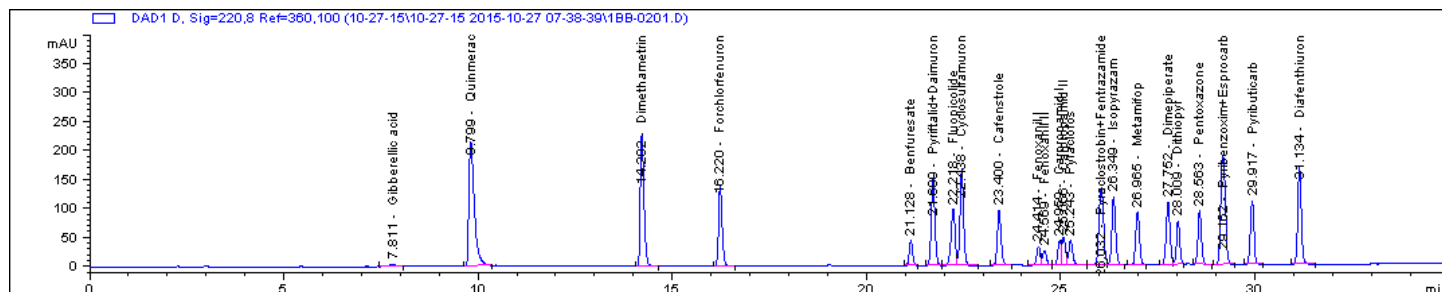
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Solvent: Acetonitrile

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/NC SL 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.

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 redissolve 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.



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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