

Certificate of Analysis

Reference Material & Standard

Product Name:	12 Pyrethroid Pesticide Mix Solution in Hexane, 1000µg/mL	Catalogue Number:	MCPD191218
Appearance:	Liquid	Lot Number:	0319-SA-7463
Solvent:	Hexane	Storage:	2°C ~ 8°C Protected from light and Sealed
Expiry Date:	Mar 18, 29		

Chemical Structure:

Warning:



N/A

NO.	Component	CAS No.	Certified Concentration Value (1000µg/mL)	Uncertainty (%)
1	Esfenvalerate	66230-04-4	1000.4	1.8
2	Cyfluthrin	68359-37-5	1000.2	1.8
3	Bifenthrin	82657-04-3	1000.5	1.8
4	Cypermethrin	52315-07-8	1000.1	1.8
5	Silafluofen	105024-66-6	999.7	1.8
6	Fenpropathrin	39515-41-8	1000.4	1.8
7	Deltamethrin	52918-63-5	999.9	1.8
8	Acrinathrin	101007-06-1	999.6	1.8
9	tau-Fluvalinate	102851-06-9	999.6	1.8
10	Fenvalerate	51630-58-1	1000.1	1.8
11	Permethrin	52645-53-1	999.6	1.8
12	λ-Cyhalothrin	91465-08-6	999.9	1.8

Comment:

The uncertainty values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Signature:

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Date: Mar 19, 25

Date: Mar 19, 25

Date: Mar 19, 25



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Directions:

1. *General description: This product was dissolved in Hexane and sub-packed in ampoule bottles. The outer packaging is plastic cylinder.*
2. *Characterization strategy: Certified reference materials were selected as raw materials. Characterization was based on the mass and volume of the components used in the preparation process. external standard method was used to verify the prepared value.*
3. *Metrological traceability: Through the use of raw materials with traceable purity values and tested/calibrated quality or volume measures, certified value results are ultimately traceable to SI basic units of mass kilogram (kg) and national statutory volume the unit of measurement liter (L).*
4. *Intended use: This product is suitable for identification and quantification of the analyte(s), instrument calibration, method development and quality control in analytical and R&D applications. It is not intended for administration to humans or animals, and shall not be used to diagnose, treat or cure any diseases.*
5. *Minimum sample size: For once use only.*
6. *Instructions for handling and correct use: Please shake thoroughly before use to ensure homogeneous.*

Document Version:

Revision No.	Date	Reason for Revision
01	Mar 19, 25	First release.

CATO Research Chemicals Inc.