Certificate of Analysis

Reference Material & Standard

Product Name:	59 Plant Growth Hormones Mix Solution in Acetonitrile/Water, 100μg/mL	**Catalogue Number:**	MCPD190843
Appearance:	Liquid	**Lot Number:**	0621-SA-7404
Solvent:	Acetonitrile/Water	**Storage:**	2°C ~ 8°C Protected from light and Sealed
Expiry Date:	Jun 20, 29		

Chemical Structure:

N/A

Warning:



NO.	Component	CAS No.	Certified Concentration Value (100μg/mL)	Uncertainty (%)
1	Gibberellin A7	510-75-8	99.8	1.2
2	2-Methoxy-5-nitrophenol sodium salt	67233-85-6	100.1	1.2
3	Brassinolide	72962-43-7	99.7	1.2
4	Methyl naphthalene-1-acetate	2876-78-0	99.5	1.2
5	Methyl Jasmonate	1211-29-6	99.8	1.2
6	4-Bromophenoxyacetic acid	1878-91-7	99.6	1.2
7	4-Iodophenoxyacetic acid	1878-94-0	100.0	1.2
8	3-Indolepropionic acid	830-96-6	99.6	1.2
9	Guayule citrate	2131781-80-9	99.6	1.2
10	14-Hydroxyl brassinosteroid	457603-63-3	100.1	1.2
11	(22S,23S)-28-Homobrassinolide	80483-89-2	99.7	1.2
12	Propionylbrassinolide	162922-31-8	99.6	1.2

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Signature:

Prepared by: Lisa Date: Jun 21, 25

Reviewed by: Yuki Date: Jun 21, 25

Approved by General Manager: David Date: Jun 21, 25

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NO.	Component	CAS No.	Certified Concentration Value (100μg/mL)	Uncertainty (%)
13	2-Pyridylpropanol	2859-68-9	100.2	1.2
14	Cloxyfonac	6386-63-6	99.6	1.2
15	2-(3-Chlorophenoxy)propionamide	5825-87-6	100.2	1.2
16	Gibberellic acid	77-06-5	99.6	1.2
17	2,4-D	94-75-7	99.6	1.2
18	Dichlorprop	120-36-5	99.5	1.2
19	Butralin	33629-47-9	99.8	1.2
20	Chlorpropham	101-21-3	100.3	1.2
21	Dikegulac sodium	52508-35-7	100.0	1.2
22	2,4,5-T	93-76-5	99.8	1.2
23	Flurprimidol	56425-91-3	100.3	1.2
24	Cyclanilide	113136-77-9	100.1	1.2
25	Atrazine	1912-24-9	100.0	1.2
26	4-Chlorophenoxyacetic acid	122-88-3	100.1	1.2
27	Dinoseb	88-85-7	99.8	1.2
28	N,N'-Diphenylurea	102-07-8	100.3	1.2
29	2-(3-Chlorophenoxy)-propionic acid	101-10-0	100.3	1.2
30	Trinexapac-ethyl	95266-40-3	100.1	1.2
31	Forchlorfenuron	68157-60-8	99.6	1.2
32	Prohydrojasmon	158474-72-7	99.7	1.2
33	Thidiazuron	51707-55-2	100.5	1.2
34	Tribufos	78-48-8	100.2	1.2
35	Uniconazole	83657-22-1	99.5	1.2
36	Triapenthenol	76608-88-3	99.7	1.2
37	Mepiquat chloride	24307-26-4	99.6	1.2
38	Prohexadione	88805-35-0	100.3	1.2
39	Chlormequat chloride	999-81-5	99.9	1.2
40	Diethyl aminoethyl hexanoate	10369-83-2	99.7	1.2
41	Paclobutrazol	76738-62-0	100.0	1.2
42	1-Naphthylacetic acid	86-87-3	99.7	1.2
43	Indole-3-butyric acid	133-32-4	100.4	1.2
44	Inabenfide	82211-24-3	99.7	1.2
45	1-Naphthylacetamide	86-86-2	99.9	1.2
46	Benzyladenine	1214-39-7	99.6	1.2
47	Flumetralin	62924-70-3	100.4	1.2
48	3-Indolylacetic acid	87-51-4	100.4	1.2
49	Abscisic acid	14375-45-2*	99.8	1.2
50	Kinetin	525-79-1	100.3	1.2
51	Ethychlozate	27512-72-7	99.6	1.2
52	4-Fluorophenoxyacetic acid	405-79-8	100.1	1.2
53	N6-(delta 2-Isopentenyl)-adenine	2365-40-4	100.0	1.2

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NO.	Component	CAS No.	Certified Concentration Value (100μg/mL)	Uncertainty (%)
54	trans-Zeatin	1637-39-4	100.3	1.2
55	β-Naphthoxyacetic acid	120-23-0	100.4	1.2
56	Ethyl 1-naphthaleneacetate	2122-70-5	100.5	1.2
57	2,3,5-Triiodobenzoic acid	88-82-4	100.4	1.2
58	Epibrassinolide	78821-43-9	100.4	1.2
59	Sodium 4-nitrophenoxide	824-78-2	99.6	1.2

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.

Directions:

1. General description: This product was dissolved in Acetonitrile/Water 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	Jun 21, 25	First release.