

PLANT GROWTH REGULATORS
CONCENTRATION/ MOLARITY (µM) CONVERSIONS AND HANDLING RECOMMENDATIONS

Prod. No	Growth Regulator	Mol. Wt.	CAS No.	mg/L to PGR µM Conversion ¹ (See explanation below table)						Solvent ²	Dilute In	Store Prod.	Store Stock Soln.	Sterilize By	Typical Working Conc. (mg/L)
				0.1	0.3	0.5	0.7	0.9	1.0						
A102	ABA	264.3	1437545-2	0.38	1.1	1.9	2.65	3.4	3.8	KOH	Water	F	F	CA/F	0.1-10.0
A120	Adenine	135.1	73-24-5	0.74	2.2	3.7	5.18	6.7	7.4	1 N HCl	Water	RT	C	CA	50-250
A545	Adenine Hemisulfate	404.4	321-30-2	0.25	0.7	1.2	1.73	2.2	2.5	Water	Water	RT	C	CA	50-250
A123	Ancymidol	256.3	12771-68-5	0.39	1.2	2	2.73	3.5	3.9	DMSO	N/A	C	F	CA/F	1.0-10.0
A147	Auxindole™	269.9	N/A	0.37	1.1	1.8	2.59	3.3	3.7	EtOH	N/A	F	F	F	0.003-3.0
B148	4-Bromophenoxy-acetic Acid	231.1	1878-91-7	0.43	1.3	2.2	3.02	3.9	4.3	KOH	Water	RT	C	F	0.01-5.0
B155	Bromoxynil	276.9	1689-84-5	0.36	1.1	1.8	0.25	3.3	3.6	DMSO	N/A	RT	F	F	—
B151	N6-Benzoyladenine	239.2	4005-49-6	0.42	1.3	2.1	2.94	3.8	4.2	DMSO	N/A	C	F	F	0.1-10.0
B202	BPA	309.4	2312-73-4	0.32	1	1.6	2.26	2.9	3.2	EtOH	N/A	F	F	CA/F	0.1-5.0
B800	BA	225.3	1214-39-7	0.44	1.3	2.2	3.11	4	4.4	KOH	N/A	RT	C	CA	0.1-5.0
B130	BA Solution, 1 mg/mL	225.3	1214-39-7	0.44	1.3	2.2	3.11	4	4.4	N/A	Water	C	C	CA	0.1-5.0
C207	CCC	158.1	999-81-5	0.63	1.9	3.2	4.43	5.7	6.3	Water	Water	RT	C	CA	Up to 500
C213	4-CPA	186.6	122-88-3	0.54	1.6	2.7	3.75	4.8	5.4	EtOH	N/A	RT	C	CA	0.1-10.0
C279	4-CPPU	247.7	68157-60-8	0.4	1.2	2	2.82	3.6	4	DMSO	N/A	C	C	F	0.001-1.0
C283	t-Cinnamic Acid	148.2	140-10-3	0.68	2	3.4	4.72	6.1	6.7	KOH	Water	RT	C	CA	0.1-10.0
C226	Colchicine	399.4	64-86-8	0.25	0.8	1.3	1.75	2.3	2.5	Water	Water	RT	C	F	—
D159	Dicamba	221	1918-00-9	0.45	1.4	2.3	3.17	4.1	4.5	EtOH	N/A	C	C	CA	0.01 to 10.0
D297	Dikegulac	274.3	18467-77-1	0.36	1.1	1.8	2.52	3.2	3.6	EtOH	N/A	C	C	F	0.05-10.0
D295	2,4-D Solution, 1 mg/mL	221	94-75-7	0.45	1.4	2.3	3.17	4.1	4.5	N/A	Water	C	C	CA	0.01-5.0
D309	2,4-D Solution, 10 mg/mL	221	94-75-7	0.45	1.4	2.3	3.17	4.1	4.5	N/A	Water	C	C	CA	0.01-5.0
D525	2iP	203.2	2365-40-4	0.49	1.5	2.5	3.44	4.4	4.9	KOH	Water	F	F	CA	1.0-30.0
D217	2iP Solution, 1 mg/mL	203.2	2365-40-4	0.49	1.5	2.5	3.44	4.4	4.9	N/A	Water	F	F	CA	1.0-30.0
D341	2iP•2HCl	276.2	N/A	0.36	1.1	1.8	2.5	3.3	3.6	Water	Water	F	F	CA	1.0-30.0
E348	Ethephon	144.5	16672-87-0	0.69	2.1	3.5	4.84	6.2	6.9	Water	Water	RT	C	F	0.01-10.0
F357	Fluridone	329.3	59756-60-4	0.30	0.9	1.5	2.13	2.7	3.0	DMSO	N/A	C	C	F	—
F376	Flurprimidol	312.3	56425-91-3	0.32	1	1.6	2.24	2.9	3.2	EtOH/DMSO	N/A	C	C	F	0.01-5.0
G345	Glyphosate	169.1	1071-83-6	0.59	1.8	3	4.13	5.3	5.9	KOH	Water	RT	C	F	0.01-5.0
G500	GA ₃	346.4	77-06-5	0.29	0.9	1.4	2.02	2.6	2.9	EtOH	N/A	RT	C	CA/F	0.01-5.0
G362	GA ₃ Solution	346.4	77-06-5	0.29	0.9	1.4	2.02	2.6	2.9	N/A	Water	C	C	CA/F	0.01-5.0
G358	Gibberellins A ₁ +A ₇	N/A	N/A	N/A						EtOH	N/A	C	F	CA/F	0.01-5.0
I885	IAA	175.2	87-51-4	0.57	1.7	2.9	3.99	5.1	5.7	KOH	Water	F	F	CA/F	0.01-3.0
I364	IAA Solution, 1 mg/mL	175.2	87-51-4	0.57	1.7	2.9	3.99	5.1	5.7	N/A	Water	F	F	CA/F	0.01-3.0
I538	IBA	203.2	133-32-4	0.49	1.5	2.5	3.44	4.4	4.9	KOH	Water	C	F	CA/F	0.1-10.0
I460	IBA Solution, 1 mg/mL	203.2	133-32-4	0.49	1.5	2.5	3.44	4.4	4.9	N/A	Water	F	F	CA/F	0.1-10.0
I560	IBA K-Salt	241.3	60096-23-3	0.41	1.2	2.1	2.9	3.7	4.1	Water	Water	C	F	CA/F	0.1-10.0

Continued next page

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Prod. No	Growth Regulator	Mol. Wt.	CAS No.	mg/L to PGR μ M Conversion ¹ (See explanation below table)						Solvent ²	Dilute In	Store Prod.	Store Stock Soln.	Sterilize By	Typical Working Conc. (mg/L)
				0.1	0.3	0.5	0.7	0.9	1.0						
I409	IPA	189.2	830-96-6	0.52	1.6	2.6	3.69	4.8	5.3	KOH	Water	F	F	CA/F	0.1-10.0
P717	Picloram	241.5	2/1/1918	0.41	1.4	2.1	2.9	3.7	4.1	DMSO	N/A	RT	C	CA	0.01-10.0
J379	Jasmonic Acid	210.3	3572-66-5	0.47	1.4	2.4	3.32	4.3	4.8	EtOH	NA	C	F	F	0.01-100.0
J389	Methyl Jasmonate	224.3	39924-52-2	0.44	1.3	2.2	2.24	4	4.5	EtOH	NA	RT	F	F	0.01-100.0
K750	Kinetin	215.2	525-79-1	0.46	1.4	2.3	3.25	4.2	4.7	KOH	Water	F	F	CA/F	0.1-5.0
K438	Kinetin Solution, 1 mg/mL	215.2	525-79-1	0.46	1.4	2.3	3.25	4.2	4.7	N/A	Water	F	F	CA/F	0.1-5.0
M494	Maleic Acid Hydrazide	112.1	123-33-1	0.89	2.7	4.5	6.24	8	8.9	KOH	Water	RT	C	F	0.01-10.0
N600	NAA	186.2	86-87-3	0.54	1.6	2.7	3.76	4.8	5.4	KOH	Water	RT	C	CA	0.1-10.0
N605	NAA Solution, 1 mg/mL	186.2	86-87-3	0.54	1.6	2.7	3.76	4.8	5.4	N/A	Water	C	C	CA	0.1-10.0
N610	K-NAA	224.3	15165-79-4	0.44	1.3	2.2	3.12	4	4.5	Water	Water	RT	C	CA	0.1-10.0
N564	β -Naphthoxy-acetic Acid	202.2	120-23-0	0.49	1.5	2.5	3.48	4.5	5.0	KOH	Water	RT	C	CA	0.1-10.0
O630	Oryzalin	346.4	19044-88-3	0.29	0.9	1.4	2.02	2.6	2.9	DMSO	N/A	RT	C	CA	—
P687	Paclobutrazol	293.8	76738-62-0	0.34	1.0	1.7	2.4	3.1	3.4	DMSO	N/A	RT	C	CA/F	—
P694	Phloroglucinol	126.1	6009-90-7	0.79	2.4	4	5.55	7.1	7.9	Water	Water	RT	C	CA/F	up to 162
P717	Picloram	241.5	1918-02-1	0.41	1.2	2.1	2.90	3.7	4.1	DMSO	N/A	RT	C	CA/F	0.01-10.0
P733	Putrescine	161.1	333-93-7	0.62	1.9	3.1	4.35	5.6	6.2	Water	Water	RT	C	F	—
S837	Spermidine	145.3	124-20-9	0.69	2.1	3.4	4.82	6.2	6.9	Water	Water	C	C	F	—
S746	SADH	160.2	1596-84-5	0.62	1.9	3.1	4.37	5.6	6.2	Water	Water	C	C	CA/F	0.1-10.0
T818	Triacontanol	438.8	593-50-0	0.22	0.7	1.1	1.59	2.1	2.3	EtOH/DMSO	N/A	C	F	F	0.01-10.0
T888	Thidiazuron	220.2	51707-55-2	0.45	1.4	2.3	3.18	4.1	4.5	DMSO	N/A	RT	C	CA/F	0.001-0.05
T841	<i>meta</i> -Topolin	241.5	N/A	0.41	1.2	2.1	2.89	3.7	4.1	KOH	Water	RT	F	F	0.01-5.0
T828	Trifluralin	335.3	1582-09-8	0.30	0.8	1.5	2.09	2.7	3.0	DMSO	N/A	RT	C	F	—
T761	Trinexapac-Ethyl	252.3	95266-40-3	0.4	1.2	2.0	2.77	3.6	4.0	Water	Water	C	C	F	—
Z125	Zeatin	219.2	1637-39-4	0.45	1.4	2.3	3.19	4.1	4.6	KOH	Water	F	F	CA/F	0.01-5.0
Z860	Zeatin Solution, 1 mg/mL	219.2	13114-27-7	0.45	1.4	2.3	3.19	4.1	4.6	N/A	Water	F	F	CA/F	0.01-5.0
Z899	Zeatin Riboside	351.4	6025-53-2	0.28	0.9	1.4	1.99	2.6	2.9	KOH	Water	F	F	F	0.01-5.0
Z875	Zeatin Riboside Solution, 1 mg/mL	351.4	6025-53-2	0.28	0.9	1.4	1.99	2.6	2.9	N/A	Water	F	F	F	0.01-5.0

¹ mg/L to μ M conversion example: 0.1 mg/L of ABA = 0.38 μ M solution.

² Recommended concentration of KOH is 1 N.

Storage:

F = Freezer (-20 to 0 C)
 C = Cooler/ Refrigerator (2-6 C)
 RT = Room Temperature

Sterilize by:

CA = Co-autoclave with other media components
 F = Filter Sterilize (Heat labile or no heat stability information available)
 CA/F = Co-autoclave with media components, however, some loss of activity may occur

The above recommendations for storage and use are for informational purposes. End user assumes the responsibility for determining proper usage of the product.

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