

Research Use Only

CERTIFICATE OF ANALYSIS

Product Name: ONE Pesticide⁴²⁰™ Reagent Kit
Product Number: COP-001KT
Component Number: COP-Cal-01
Component Description: ONE Pesticide⁴²⁰™ Calibrator 1; 4 mL of 1 ng/mL
in Acetonitrile with 0.1% formic acid
Lot: 2962377
Manufacture Date: 06-Jan-2022
Expiration Date: 06-Aug-2022
Internal Standards (COP-IntStd) expiration is the same as the kit expiration.
Storage Conditions: -20°C

Please refer to SDS for complete safety information. Link to the SDS can be found on the product page at www.perkinelmer.com.

ANALYTE	CAS #	PREPARED CONCENTRATION (ng/mL) ¹
Abamectin ²	71751-41-2	1.00
Acephate	30560-19-1	1.00
Acequinocyl	57960-19-7	0.99
Acetamiprid	135410-20-7	0.98
Aldicarb	116-06-3	1.01
alpha-Chlordane	5103-71-09	1.02
Azoxystrobin	131860-33-8	1.00
Bifenazate	149877-41-8	1.00
Bifenthrin	82657-04-3	1.01
Boscalid	188425-85-6	1.00
Captan	133-06-2	0.99
Carbaryl	63-25-2	1.01
Carbofuran	1563-66-2	1.01
Chlorantraniliprole	500008-45-7	1.01
gamma-Chlordane	5103-74-2	1.00
Chlorfenapyr	122453-73-0	1.01
Chlorpyrifos (Dursban)	2921-88-2	1.01
Clofentezine	74115-24-5	1.00
Coumaphos	56-72-4	1.01
Cyfluthrin ³	68359-37-5	1.01
Cypermethrin ³	52315-07-8	1.01
Daminozide (Alar)	1596-84-5	1.01
Diazinon	333-41-5	1.00
Dichlorvos	62-73-7	1.01

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Dimethoate	60-51-5	0.99
Dimethomorph ⁴	110488-70-5	0.99
Ethoprophos (Ethoprop)	13194-48-4	1.00
Etofenprox	80844-07-1	1.01
Etoxazole	153233-91-1	1.01
Fenhexamid	126833-17-8	1.00
Fenoxycarb	72490-01-8	1.00
Fenpyroximate	111812-58-9	1.00
Fipronil	120068-37-3	1.01
Flonicamid	158062-67-0	1.00
Fludioxonil	131341-86-1	0.99
Hexythiazox	78587-05-0	1.00
Imazalil	35554-44-0	1.01
Imidacloprid	138261-41-3	1.01
Japanese Aflatoxin mixture	75-05-8	0.40
Aflatoxin B1	1162-65-8	0.10
Aflatoxin B2	7220-81-7	0.10
Aflatoxin G1	1165-39-5	0.10
Aflatoxin G2	7241-98-7	0.10
Kresoxim-methyl	143390-89-0	1.00
Malathion	121-75-5	1.00
Metalaxyl	57837-19-1	0.98
Methiocarb	2032-65-7	1.00
Methomyl	16752-77-5	1.01
Mevinphos ⁵	7786-34-7	1.00
MGK-264	113-48-4	1.01
Myclobutanil	88671-89-0	1.00
Naled	300-76-5	1.00
Ochratoxin A	303-47-9	0.10
Oxamyl	23135-22-0	1.00
Paclobutrazol	76738-62-0	1.01
Parathion-methyl	298-00-0	0.99
Pentachloronitrobenzene	82-68-8	1.00
Permethrin ⁶	5245-53-1	1.00
Phosmet (Imidan)	732-11-6	1.01
Piperonyl butoxide	51-03-6	0.99
Prallethrin	23031-36-9	1.01

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Propiconazole (Tilt) ³	60207-90-1	1.01
Propoxur (Baygon)	114-26-1	1.00
Pyrethrins	23031-36-9	1.00
Pyrethrin I (Pyrethrins)	121-21-1	0.56
Pyrethrin II (Pyrethrins)	121-29-9	0.28
Cinerin I (Pyrethrins)	25402-06-6	0.06
Cinerin II (Pyrethrins)	121-20-0	0.04
Jasmolin I (Pyrethrins)	4466-14-2	0.04
Jasmolin II (Pyrethrins)	1172-63-0	0.03
Pyridaben	96489-71-3	1.01
Spinetoram ⁷	187166-40-1	0.99
Spinosad	168316-95-8	0.99
Spinosyn A	131929-60-7	0.52
Spinosyn D	131929-63-0	0.43
Spiromesifen	283594-90-1	1.00
Spirotetramat	203313-25-1	1.01
Spiroxamine ⁸	118134-30-8	1.00
Tebuconazol	107534-96-3	1.00
Thiacloprid	111988-49-9	1.00
Thiamethoxam	153719-23-4	1.00
Trifloxystrobin	141517-21-7	1.01

¹Uncertainties associated with the prepared concentrations reported on this certificate do not exceed 9.6%.

²B1a=87.3%, B1b=8.1%.

³Mixture of isomers.

⁴43% isomer (E) and 55% isomer (Z).

⁵95% (E) and 4% (Z) isomers.

⁶46% cis and 54% trans isomers.

⁷71.6% Spinosyn J, 25.0% Spinosyn L and 1.7% trace of other isomers.

⁸55.5% cis isomer and 44.5% trans isomer.

CERTIFICATE OF ANALYSIS

Product Name: ONE Pesticide⁴²⁰™ Reagent Kit
Product Number: COP-001KT
Component Number: COP-Cal-02
Component Description: ONE Pesticide⁴²⁰™ Calibrator 2; 4 mL of 5 ng/mL
in Acetonitrile with 0.1% formic acid
Lot: 2962377
Manufacture Date: 06-Jan-2022
Expiration Date: 06-Aug-2022
Internal Standards (COP-IntStd) expiration is the same as the kit expiration
Storage Conditions: -20°C

Please refer to SDS for complete safety information. Link to the SDS can be found on the product page at www.perkinelmer.com.

ANALYTE	CAS #	PREPARED CONCENTRATION (ng/mL) ¹
Abamectin ²	71751-41-2	5.02
Acephate	30560-19-1	5.01
Acequinocyl	57960-19-7	4.95
Acetamiprid	135410-20-7	4.91
Aldicarb	116-06-3	5.05
alpha-Chlordane	5103-71-09	5.10
Azoxystrobin	131860-33-8	5.01
Bifenazate	149877-41-8	5.01
Bifenthrin	82657-04-3	5.03
Boscalid	188425-85-6	5.02
Captan	133-06-2	4.97
Carbaryl	63-25-2	5.03
Carbofuran	1563-66-2	5.06
Chlorantraniliprole	500008-45-7	5.03
gamma-Chlordane	5103-74-2	5.01
Chlorfenapyr	122453-73-0	5.06
Chlorpyrifos (Dursban)	2921-88-2	5.03
Clofentezine	74115-24-5	5.00
Coumaphos	56-72-4	5.05
Cyfluthrin ³	68359-37-5	5.03
Cypermethrin ³	52315-07-8	5.04
Daminozide (Alar)	1596-84-5	5.07
Diazinon	333-41-5	5.01

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Dichlorvos	62-73-7	5.05
Dimethoate	60-51-5	4.95
Dimethomorph ⁴	110488-70-5	4.93
Ethoprophos (Ethoprop)	13194-48-4	5.00
Etofenprox	80844-07-1	5.05
Etoxazole	153233-91-1	5.03
Fenhexamid	126833-17-8	5.00
Fenoxycarb	72490-01-8	4.99
Fenpyroximate	111812-58-9	5.02
Fipronil	120068-37-3	5.05
Flonicamid	158062-67-0	5.01
Fludioxonil	131341-86-1	4.93
Hexythiazox	78587-05-0	5.02
Imazalil	35554-44-0	5.07
Imidacloprid	138261-41-3	5.03
Japanese Aflatoxin mixture	75-05-8	2.00
Aflatoxin B1	1162-65-8	0.50
Aflatoxin B2	7220-81-7	0.50
Aflatoxin G1	1165-39-5	0.50
Aflatoxin G2	7241-98-7	0.50
Kresoxim-methyl	143390-89-0	5.01
Malathion	121-75-5	5.01
Metalaxyl	57837-19-1	4.91
Methiocarb	2032-65-7	5.02
Methomyl	16752-77-5	5.03
Mevinphos ⁵	7786-34-7	4.99
MGK-264	113-48-4	5.06
Myclobutanil	88671-89-0	5.00
Naled	300-76-5	5.02
Ochratoxin A	303-47-9	0.51
Oxamyl	23135-22-0	5.01
Paclobutrazol	76738-62-0	5.03
Parathion-methyl	298-00-0	4.97
Pentachloronitrobenzene	82-68-8	4.98
Permethrin ⁶	52645-53-1	5.02
Phosmet (Imidan)	732-11-6	5.03
Piperonyl butoxide	51-03-6	4.95

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Prallethrin	23031-36-9	5.03
Propiconazole (Tilt) ³	60207-90-1	5.03
Propoxur (Baygon)	114-26-1	5.00
Pyrethrins	23031-36	5.00
Pyrethrin I (Pyrethrins)	121-21-1	2.81
Pyrethrin II (Pyrethrins)	121-29-9	1.39
Cinerin I (Pyrethrins)	25402-06-6	0.28
Cinerin II (Pyrethrins)	121-20-0	0.19
Jasmolin I (Pyrethrins)	4466-14-2	0.20
Jasmolin II (Pyrethrins)	1172-63-0	0.13
Pyridaben	96489-71-3	5.03
Spinetoram ⁷	187166-40-1	4.93
Spinosad	168316-95-8	4.94
Spinosyn A	131929-60-7	2.61
Spinosyn D	131929-63-0	2.16
Spiromesifen	283594-90-1	5.02
Spirotetramat	203313-25-1	5.04
Spiroxamine ⁸	118134-30-8	5.00
Tebuconazol	107534-96-3	5.01
Thiacloprid	111988-49-9	5.02
Thiamethoxam	153719-23-4	5.02
Trifloxystrobin	141517-21-7	5.04

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²B1a=87.3%, B1b=8.1%.

³Mixture of isomers.

⁴43% isomer (E) and 55% isomer (Z).

⁵95% (E) and 4% (Z) isomers.

⁶46% cis and 54% trans isomers.

⁷71.6% Spinosyn J, 25.0% Spinosyn L and 1.7% trace of other isomers.

⁸55.5% cis isomer and 44.5% trans isomer.

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CERTIFICATE OF ANALYSIS

Product Name: ONE Pesticide⁴²⁰™ Reagent Kit
Product Number: COP-001KT
Component Number: COP-Cal-03
Component Description: ONE Pesticide⁴²⁰™ Calibrator 3; 4 mL of 10 ng/mL
in Acetonitrile with 0.1% formic acid

Lot: 2962377

Manufacture Date: 06-Jan-2022

Expiration Date: 06-Aug-2022

Internal Standards (COP-IntStd) expiration is the same as the kit expiration

Storage Conditions: -20°C

Please refer to SDS for complete safety information. Link to the SDS can be found on the product page at www.perkinelmer.com.

ANALYTE	CAS #	PREPARED CONCENTRATION (ng/mL) ¹
Abamectin ²	71751-41-2	10.04
Acephate	30560-19-1	10.02
Acequinocyl	57960-19-7	9.89
Acetamiprid	135410-20-7	9.82
Aldicarb	116-06-3	10.09
alpha-Chlordane	5103-71-09	10.19
Azoxystrobin	131860-33-8	10.02
Bifenazate	149877-41-8	10.02
Bifenthrin	82657-04-3	10.05
Boscalid	188425-85-6	10.03
Captan	133-06-2	9.93
Carbaryl	63-25-2	10.05
Carbofuran	1563-66-2	10.12
Chlorantraniliprole	500008-45-7	10.05
gamma-Chlordane	5103-74-2	10.01
Chlorfenapyr	122453-73-0	10.11
Chlorpyrifos (Dursban)	2921-88-2	10.06
Clofentezine	74115-24-5	10.00
Coumaphos	56-72-4	10.10
Cyfluthrin ³	68359-37-5	10.06
Cypermethrin ³	52315-07-8	10.08
Daminozide (Alar)	1596-84-5	10.13
Diazinon	333-41-5	10.01

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Dichlorvos	62-73-7	10.10
Dimethoate	60-51-5	9.90
Dimethomorph ⁴	110488-70-5	9.85
Ethoprophos (Ethoprop)	13194-48-4	10.00
Etofenprox	80844-07-1	10.09
Etoxazole	153233-91-1	10.06
Fenhexamid	126833-17-8	10.00
Fenoxycarb	72490-01-8	9.98
Fenpyroximate	111812-58-9	10.03
Fipronil	120068-37-3	10.10
Flonicamid	158062-67-0	10.01
Fludioxonil	131341-86-1	9.85
Hexythiazox	78587-05-0	10.04
Imazalil	35554-44-0	10.14
Imidacloprid	138261-41-3	10.05
Japanese Aflatoxin mixture	75-05-8	4.01
Aflatoxin B1	1162-65-8	1.00
Aflatoxin B2	7220-81-7	1.00
Aflatoxin G1	1165-39-5	1.00
Aflatoxin G2	7241-98-7	1.00
Kresoxim-methyl	143390-89-0	10.01
Malathion	121-75-5	10.02
Metalaxyl	57837-19-1	9.81
Methiocarb	2032-65-7	10.03
Methomyl	16752-77-5	10.05
Mevinphos ⁵	7786-34-7	9.97
MGK-264	113-48-4	10.12
Myclobutanil	88671-89-0	10.00
Naled	300-76-5	10.03
Ochratoxin A	303-47-9	1.02
Oxamyl	23135-22-0	10.02
Paclobutrazol	76738-62-0	10.06
Parathion-methyl	298-00-0	9.93
Pentachloronitrobenzene	82-68-8	9.95
Permethrin ⁶	52645-53-1	10.03
Phosmet (Imidan)	732-11-6	10.06
Piperonyl butoxide	51-03-6	9.89

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Prallethrin	23031-36-9	10.05
Propiconazole (Tilt) ³	60207-90-1	10.06
Propoxur (Baygon)	114-26-1	10.00
Pyrethrins	23031-36-9	10.00
Pyrethrin I (Pyrethrins)	121-21-1	5.61
Pyrethrin II (Pyrethrins)	121-29-9	2.78
Cinerin I (Pyrethrins)	25402-06-6	0.57
Cinerin II (Pyrethrins)	121-20-0	0.38
Jasmolin I (Pyrethrins)	4466-14-2	0.40
Jasmolin II (Pyrethrins)	1172-63-0	0.27
Pyridaben	96489-71-3	10.05
Spinetoram ⁷	187166-40-1	9.86
Spinosad	168316-95-8	9.87
Spinosyn A	131929-60-7	5.21
Spinosyn D	131929-63-0	4.32
Spiromesifen	283594-90-1	10.04
Spirotetramat	203313-25-1	10.08
Spiroxamine ⁸	118134-30-8	10.00
Tebuconazol	107534-96-3	10.01
Thiacloprid	111988-49-9	10.03
Thiamethoxam	153719-23-4	10.03
Trifloxystrobin	141517-21-7	10.07

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⁶46% cis and 54% trans isomers.

⁷71.6% Spinosyn J, 25.0% Spinosyn L and 1.7% trace of other isomers.

⁸55.5% cis isomer and 44.5% trans isomer.

CERTIFICATE OF ANALYSIS

Product Name: ONE Pesticide⁴²⁰™ Reagent Kit
Product Number: COP-001KT
Component Number: COP-Cal-04
Component Description: ONE Pesticide⁴²⁰™ Calibrator 4; 4 mL of 25 ng/mL
in Acetonitrile with 0.1% formic acid

Lot: 2962377

Manufacture Date: 06-Jan-2022

Expiration Date: 06-Aug-2022

Internal Standards (COP-IntStd) expiration is the same as the kit expiration

Storage Conditions: -20°C

Please refer to SDS for complete safety information. Link to the SDS can be found on the product page at www.perkinelmer.com.

ANALYTE	CAS #	PREPARED CONCENTRATION (ng/mL) ¹
Abamectin ²	71751-41-2	25.10
Acephate	30560-19-1	25.05
Acequinocyl	57960-19-7	24.73
Acetamiprid	135410-20-7	24.55
Aldicarb	116-06-3	25.23
alpha-Chlordane	5103-71-09	25.48
Azoxystrobin	131860-33-8	25.05
Bifenazate	149877-41-8	25.05
Bifenthrin	82657-04-3	25.13
Boscalid	188425-85-6	25.08
Captan	133-06-2	24.83
Carbaryl	63-25-2	25.13
Carbofuran	1563-66-2	25.30
Chlorantraniliprole	500008-45-7	25.13
gamma-Chlordane	5103-74-2	25.03
Chlorfenapyr	122453-73-0	25.28
Chlorpyrifos (Dursban)	2921-88-2	25.15
Clofentezine	74115-24-5	25.00
Coumaphos	56-72-4	25.25
Cyfluthrin ³	68359-37-5	25.15
Cypermethrin ³	52315-07-8	25.20
Daminozide (Alar)	1596-84-5	25.33
Diazinon	333-41-5	25.03

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Dichlorvos	62-73-7	25.25
Dimethoate	60-51-5	24.75
Dimethomorph ⁴	110488-70-5	24.63
Ethoprophos (Ethoprop)	13194-48-4	25.00
Etofenprox	80844-07-1	25.23
Etoxazole	153233-91-1	25.15
Fenhexamid	126833-17-8	25.00
Fenoxycarb	72490-01-8	24.95
Fenpyroximate	111812-58-9	25.08
Fipronil	120068-37-3	25.25
Flonicamid	158062-67-0	25.03
Fludioxonil	131341-86-1	24.63
Hexythiazox	78587-05-0	25.10
Imazalil	35554-44-0	25.35
Imidacloprid	138261-41-3	25.13
Japanese Aflatoxin mixture	75-05-8	10.02
Aflatoxin B1	1162-65-8	2.51
Aflatoxin B2	7220-81-7	2.50
Aflatoxin G1	1165-39-5	2.50
Aflatoxin G2	7241-98-7	2.51
Kresoxim-methyl	143390-89-0	25.03
Malathion	121-75-5	25.05
Metalaxyl	57837-19-1	24.53
Methiocarb	2032-65-7	25.08
Methomyl	16752-77-5	25.13
Mevinphos ⁵	7786-34-7	24.93
MGK-264	113-48-4	25.30
Myclobutanil	88671-89-0	25.00
Naled	300-76-5	25.08
Ochratoxin A	303-47-9	2.56
Oxamyl	23135-22-0	25.05
Paclobutrazol	76738-62-0	25.15
Parathion-methyl	298-00-0	24.83
Pentachloronitrobenzene	82-68-8	24.88
Permethrin ⁶	52645-53-1	25.08
Phosmet (Imidan)	732-11-6	25.15
Piperonyl butoxide	51-03-6	24.73

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Prallethrin	23031-36-9	25.13
Propiconazole (Tilt) ³	60207-90-1	25.15
Propoxur (Baygon)	114-26-1	25.00
Pyrethrins	23031-36-9	25.01
Pyrethrin I (Pyrethrins)	121-21-1	14.03
Pyrethrin II (Pyrethrins)	121-29-9	6.94
Cinerin I (Pyrethrins)	25402-06-6	1.42
Cinerin II (Pyrethrins)	121-20-0	0.95
Jasmolin I (Pyrethrins)	4466-14-2	1.00
Jasmolin II (Pyrethrins)	1172-63-0	0.66
Pyridaben	96489-71-3	25.13
Spinetoram ⁷	187166-40-1	24.65
Spinosad	168316-95-8	24.68
Spinosyn A	131929-60-7	13.03
Spinosyn D	131929-63-0	10.81
Spiromesifen	283594-90-1	25.10
Spirotetramat	203313-25-1	25.20
Spiroxamine ⁸	118134-30-8	25.00
Tebuconazol	107534-96-3	25.03
Thiacloprid	111988-49-9	25.08
Thiamethoxam	153719-23-4	25.08
Trifloxystrobin	141517-21-7	25.18

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²B1a=87.3%, B1b=8.1%.

³Mixture of isomers.

⁴43% isomer (E) and 55% isomer (Z).

⁵95% (E) and 4% (Z) isomers.

⁶46% cis and 54% trans isomers.

⁷71.6% Spinosyn J, 25.0% Spinosyn L and 1.7% trace of other isomers.

⁸55.5% cis isomer and 44.5% trans isomer.

CERTIFICATE OF ANALYSIS

Product Name: ONE Pesticide⁴²⁰™ Reagent Kit
Product Number: COP-001KT
Component Number: COP-Cal-05
Component Description: ONE Pesticide⁴²⁰™ Calibrator 5; 4 mL of 50 ng/mL
 in Acetonitrile with 0.1% formic acid

Lot: 2962377

Manufacture Date: 06-Jan-2022

Expiration Date: 06-Aug-2022

Internal Standards (COP-IntStd) expiration is the same as the kit expiration

Storage Conditions: -20°C

Please refer to SDS for complete safety information. Link to the SDS can be found on the product page at www.perkinelmer.com.

ANALYTE	CAS #	PREPARED CONCENTRATION (ng/mL) ¹
Abamectin ²	71751-41-2	50.20
Acephate	30560-19-1	50.10
Acequinocyl	57960-19-7	49.45
Acetamiprid	135410-20-7	49.10
Aldicarb	116-06-3	50.45
alpha-Chlordane	5103-71-09	50.95
Azoxystrobin	131860-33-8	50.10
Bifenazate	149877-41-8	50.10
Bifenthrin	82657-04-3	50.25
Boscalid	188425-85-6	50.15
Captan	133-06-2	49.65
Carbaryl	63-25-2	50.25
Carbofuran	1563-66-2	50.60
Chlorantraniliprole	500008-45-7	50.25
gamma-Chlordane	5103-74-2	50.05
Chlorfenapyr	122453-73-0	50.55
Chlorpyrifos (Dursban)	2921-88-2	50.30
Clofentezine	74115-24-5	50.00
Coumaphos	56-72-4	50.50
Cyfluthrin ³	68359-37-5	50.30
Cypermethrin ³	52315-07-8	50.40
Daminozide (Alar)	1596-84-5	50.65
Diazinon	333-41-5	50.05

Research Use Only

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Dichlorvos	62-73-7	50.50
Dimethoate	60-51-5	49.50
Dimethomorph ⁴	110488-70-5	49.25
Ethoprophos (Ethoprop)	13194-48-4	50.00
Etofenprox	80844-07-1	50.45
Etoxazole	153233-91-1	50.30
Fenhexamid	126833-17-8	50.00
Fenoxycarb	72490-01-8	49.90
Fenpyroximate	111812-58-9	50.15
Fipronil	120068-37-3	50.50
Flonicamid	158062-67-0	50.05
Fludioxonil	131341-86-1	49.25
Hexythiazox	78587-05-0	50.20
Imazalil	35554-44-0	50.70
Imidacloprid	138261-41-3	50.25
Japanese Aflatoxin mixture	75-05-8	20.04
Aflatoxin B1	1162-65-8	5.02
Aflatoxin B2	7220-81-7	5.00
Aflatoxin G1	1165-39-5	5.00
Aflatoxin G2	7241-98-7	5.02
Kresoxim-methyl	143390-89-0	50.05
Malathion	121-75-5	50.10
Metalaxyl	57837-19-1	49.05
Methiocarb	2032-65-7	50.15
Methomyl	16752-77-5	50.25
Mevinphos ⁵	7786-34-7	49.85
MGK-264	113-48-4	50.60
Myclobutanil	88671-89-0	50.00
Naled	300-76-5	50.15
Ochratoxin A	303-47-9	5.12
Oxamyl	23135-22-0	50.10
Paclobutrazol	76738-62-0	50.30
Parathion-methyl	298-00-0	49.65
Pentachloronitrobenzene	82-68-8	49.75
Permethrin ⁶	52645-53-1	50.15
Phosmet (Imidan)	732-11-6	50.30
Piperonyl butoxide	51-03-6	49.45

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Prallethrin	23031-36-9	50.25
Propiconazole (Tilt) ³	60207-90-1	50.30
Propoxur (Baygon)	114-26-1	50.00
Pyrethrins	23031-36-9	50.02
Pyrethrin I (Pyrethrins)	121-21-1	28.06
Pyrethrin II (Pyrethrins)	121-29-9	13.88
Cinerin I (Pyrethrins)	25402-06-6	2.85
Cinerin II (Pyrethrins)	121-20-0	1.90
Jasmolin I (Pyrethrins)	4466-14-2	1.99
Jasmolin II (Pyrethrins)	1172-63-0	1.33
Pyridaben	96489-71-3	50.25
Spinetoram ⁷	187166-40-1	49.30
Spinosad	168316-95-8	49.35
Spinosyn A	131929-60-7	26.06
Spinosyn D	131929-63-0	21.62
Spiromesifen	283594-90-1	50.20
Spirotetramat	203313-25-1	50.40
Spiroxamine ⁸	118134-30-8	50.00
Tebuconazol	107534-96-3	50.05
Thiacloprid	111988-49-9	50.15
Thiamethoxam	153719-23-4	50.15
Trifloxystrobin	141517-21-7	50.35

¹Uncertainties associated with the prepared concentrations reported on this certificate do not exceed 9.6%.

²B1a=87.3%, B1b=8.1%.

³Mixture of isomers.

⁴43% isomer (E) and 55% isomer (Z).

⁵95% (E) and 4% (Z) isomers.

⁶46% cis and 54% trans isomers.

⁷71.6% Spinosyn J, 25.0% Spinosyn L and 1.7% trace of other isomers.

⁸55.5% cis isomer and 44.5% trans isomer.

CERTIFICATE OF ANALYSIS

Product Name: ONE Pesticide⁴²⁰™ Reagent Kit
Product Number: COP-001KT
Component Number: COP-Cal-06
Component Description: ONE Pesticide⁴²⁰™ Calibrator 6; 4 mL of 100 ng/mL
in Acetonitrile with 0.1% formic acid

Lot: 2962377

Manufacture Date: 06-Jan-2022

Expiration Date: 06-Aug-2022

Internal Standards (COP-IntStd) expiration is the same as the kit expiration

Storage Conditions: -20°C

Please refer to SDS for complete safety information. Link to the SDS can be found on the product page at www.perkinelmer.com.

ANALYTE	CAS #	PREPARED CONCENTRATION (ng/mL) ¹
Abamectin ²	71751-41-2	100.40
Acephate	30560-19-1	100.20
Acequinocyl	57960-19-7	98.90
Acetamiprid	135410-20-7	98.20
Aldicarb	116-06-3	100.90
alpha-Chlordane	5103-71-09	101.90
Azoxystrobin	131860-33-8	100.20
Bifenazate	149877-41-8	100.20
Bifenthrin	82657-04-3	100.50
Boscalid	188425-85-6	100.30
Captan	133-06-2	99.30
Carbaryl	63-25-2	100.50
Carbofuran	1563-66-2	101.20
Chlorantraniliprole	500008-45-7	100.50
gamma-Chlordane	5103-74-2	100.10
Chlorfenapyr	122453-73-0	101.10
Chlorpyrifos (Dursban)	2921-88-2	100.60
Clofentezine	74115-24-5	100.00
Coumaphos	56-72-4	101.00
Cyfluthrin ³	68359-37-5	100.60
Cypermethrin ³	52315-07-8	100.80
Daminozide (Alar)	1596-84-5	101.30
Diazinon	333-41-5	100.10

Research Use Only

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Dichlorvos	62-73-7	101.00
Dimethoate	60-51-5	99.00
Dimethomorph ⁴	110488-70-5	98.50
Ethoprophos (Ethoprop)	13194-48-4	100.00
Etofenprox	80844-07-1	100.90
Etoxazole	153233-91-1	100.60
Fenhexamid	126833-17-8	100.00
Fenoxycarb	72490-01-8	99.80
Fenpyroximate	111812-58-9	100.30
Fipronil	120068-37-3	101.00
Flonicamid	158062-67-0	100.10
Fludioxonil	131341-86-1	98.50
Hexythiazox	78587-05-0	100.40
Imazalil	35554-44-0	101.40
Imidacloprid	138261-41-3	100.50
Japanese Aflatoxin mixture	75-05-8	40.08
Aflatoxin B1	1162-65-8	10.04
Aflatoxin B2	7220-81-7	10.00
Aflatoxin G1	1165-39-5	10.00
Aflatoxin G2	7241-98-7	10.04
Kresoxim-methyl	143390-89-0	100.10
Malathion	121-75-5	100.20
Metalaxyl	57837-19-1	98.10
Methiocarb	2032-65-7	100.30
Methomyl	16752-77-5	100.50
Mevinphos ⁵	7786-34-7	99.70
MGK-264	113-48-4	101.20
Myclobutanil	88671-89-0	100.00
Naled	300-76-5	100.30
Ochratoxin A	303-47-9	10.23
Oxamyl	23135-22-0	100.20
Paclobutrazol	76738-62-0	100.60
Parathion-methyl	298-00-0	99.30
Pentachloronitrobenzene	82-68-8	99.50
Permethrin ⁶	52645-53-1	100.30
Phosmet (Imidan)	732-11-6	100.60
Piperonyl butoxide	51-03-6	98.90

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Prallethrin	23031-36-9	100.50
Propiconazole (Tilt) ³	60207-90-1	100.60
Propoxur (Baygon)	114-26-1	100.00
Pyrethrins	23031-36-9	100.04
Pyrethrin I (Pyrethrins)	121-21-1	56.13
Pyrethrin II (Pyrethrins)	121-29-9	27.77
Cinerin I (Pyrethrins)	25402-06-6	5.70
Cinerin II (Pyrethrins)	121-20-0	3.80
Jasmolin I (Pyrethrins)	4466-14-2	3.99
Jasmolin II (Pyrethrins)	1172-63-0	2.66
Pyridaben	96489-71-3	100.50
Spinetoram ⁷	187166-40-1	98.60
Spinosad	168316-95-8	98.70
Spinosyn A	131929-60-7	52.11
Spinosyn D	131929-63-0	43.23
Spiromesifen	283594-90-1	100.40
Spirotetramat	203313-25-1	100.80
Spiroxamine ⁸	118134-30-8	100.00
Tebuconazol	107534-96-3	100.10
Thiacloprid	111988-49-9	100.30
Thiamethoxam	153719-23-4	100.30
Trifloxystrobin	141517-21-7	100.70

¹Uncertainties associated with the prepared concentrations reported on this certificate do not exceed 9.6%.

²B1a=87.3%, B1b=8.1%.

³Mixture of isomers.

⁴43% isomer (E) and 55% isomer (Z).

⁵95% (E) and 4% (Z) isomers.

⁶46% cis and 54% trans isomers.

⁷71.6% Spinosyn J, 25.0% Spinosyn L and 1.7% trace of other isomers.

⁸55.5% cis isomer and 44.5% trans isomer.

CERTIFICATE OF ANALYSIS

Product Name: ONE Pesticide⁴²⁰™ Reagent Kit
Product Number: COP-001KT
Component Number: COP-Cal-07
Component Description: ONE Pesticide⁴²⁰™ Calibrator 7; 4 mL of 150 ng/mL
in Acetonitrile with 0.1% formic acid

Lot: 2962377

Manufacture Date: 06-Jan-2022

Expiration Date: 06-Aug-2022

Internal Standards (COP-IntStd) expiration is the same as the kit expiration

Storage Conditions: -20°C

Please refer to SDS for complete safety information. Link to the SDS can be found on the product page at www.perkinelmer.com.

ANALYTE	CAS #	PREPARED CONCENTRATION (ng/mL) ¹
Abamectin ²	71751-41-2	150.60
Acephate	30560-19-1	150.30
Acequinocyl	57960-19-7	148.35
Acetamiprid	135410-20-7	147.30
Aldicarb	116-06-3	151.35
alpha-Chlordane	5103-71-09	152.85
Azoxystrobin	131860-33-8	150.30
Bifenazate	149877-41-8	150.30
Bifenthrin	82657-04-3	150.75
Boscalid	188425-85-6	150.45
Captan	133-06-2	148.95
Carbaryl	63-25-2	150.75
Carbofuran	1563-66-2	151.80
Chlorantraniliprole	500008-45-7	150.75
gamma-Chlordane	5103-74-2	150.15
Chlorfenapyr	122453-73-0	151.65
Chlorpyrifos (Dursban)	2921-88-2	150.90
Clofentezine	74115-24-5	150.00
Coumaphos	56-72-4	151.50
Cyfluthrin ³	68359-37-5	150.90
Cypermethrin ³	52315-07-8	151.20
Daminozide (Alar)	1596-84-5	151.95
Diazinon	333-41-5	150.15

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Dichlorvos	62-73-7	151.50
Dimethoate	60-51-5	148.50
Dimethomorph ⁴	110488-70-5	147.75
Ethoprophos (Ethoprop)	13194-48-4	150.00
Etofenprox	80844-07-1	151.35
Etoxazole	153233-91-1	150.90
Fenhexamid	126833-17-8	150.00
Fenoxycarb	72490-01-8	149.70
Fenpyroximate	111812-58-9	150.45
Fipronil	120068-37-3	151.50
Flonicamid	158062-67-0	150.15
Fludioxonil	131341-86-1	147.75
Hexythiazox	78587-05-0	150.60
Imazalil	35554-44-0	152.10
Imidacloprid	138261-41-3	150.75
Japanese Aflatoxin mixture	75-05-8	60.12
Aflatoxin B1	1162-65-8	15.06
Aflatoxin B2	7220-81-7	15.00
Aflatoxin G1	1165-39-5	15.00
Aflatoxin G2	7241-98-7	15.06
Kresoxim-methyl	143390-89-0	150.15
Malathion	121-75-5	150.30
Metalaxyl	57837-19-1	147.15
Methiocarb	2032-65-7	150.45
Methomyl	16752-77-5	150.75
Mevinphos ⁵	7786-34-7	149.55
MGK-264	113-48-4	151.80
Myclobutanil	88671-89-0	150.00
Naled	300-76-5	150.45
Ochratoxin A	303-47-9	15.35
Oxamyl	23135-22-0	150.30
Paclobutrazol	76738-62-0	150.90
Parathion-methyl	298-00-0	148.95
Pentachloronitrobenzene	82-68-8	149.25
Permethrin ⁶	52645-53-1	150.45
Phosmet (Imidan)	732-11-6	150.90
Piperonyl butoxide	51-03-6	148.35

Research Use Only

Certificate Number 6132.01

Prallethrin	23031-36-9	150.75
Propiconazole (Tilt) ³	60207-90-1	150.90
Propoxur (Baygon)	114-26-1	150.00
Pyrethrins	23031-36-9	150.05
Pyrethrin I (Pyrethrins)	121-21-1	84.19
Pyrethrin II (Pyrethrins)	121-29-9	41.65
Cinerin I (Pyrethrins)	25402-06-6	8.55
Cinerin II (Pyrethrins)	121-20-0	5.70
Jasmolin I (Pyrethrins)	4466-14-2	5.98
Jasmolin II (Pyrethrins)	1172-63-0	3.99
Pyridaben	96489-71-3	150.75
Spinetoram ⁷	187166-40-1	147.90
Spinosad	168316-95-8	148.05
Spinosyn A	131929-60-7	78.17
Spinosyn D	131929-63-0	64.85
Spiromesifen	283594-90-1	150.60
Spirotetramat	203313-25-1	151.20
Spiroxamine ⁸	118134-30-8	150.00
Tebuconazol	107534-96-3	150.15
Thiacloprid	111988-49-9	150.45
Thiamethoxam	153719-23-4	150.45
Trifloxystrobin	141517-21-7	151.05

¹Uncertainties associated with the prepared concentrations reported on this certificate do not exceed 9.6%.

²B1a=87.3%, B1b=8.1%.

³Mixture of isomers.

⁴43% isomer (E) and 55% isomer (Z).

⁵95% (E) and 4% (Z) isomers.

⁶46% cis and 54% trans isomers.

⁷71.6% Spinosyn J, 25.0% Spinosyn L and 1.7% trace of other isomers.

⁸55.5% cis isomer and 44.5% trans isomer.

CERTIFICATE OF ANALYSIS

Product Name: ONE Pesticide⁴²⁰™ Reagent Kit
Product Number: COP-001KT
Component Number: COP-Cal-08
Component Description: ONE Pesticide⁴²⁰™ Calibrator 8; 4 mL of 250 ng/mL
in Acetonitrile with 0.1% formic acid

Lot: 2962377

Manufacture Date: 06-Jan-2022

Expiration Date: 06-Aug-2022

Internal Standards (COP-IntStd) expiration is the same as the kit expiration

Storage Conditions: -20°C

Please refer to SDS for complete safety information. Link to the SDS can be found on the product page at www.perkinelmer.com.

ANALYTE	CAS #	PREPARED CONCENTRATION (ng/mL) ¹
Abamectin ²	71751-41-2	251.00
Acephate	30560-19-1	250.50
Acequinocyl	57960-19-7	247.25
Acetamiprid	135410-20-7	245.50
Aldicarb	116-06-3	252.25
alpha-Chlordane	5103-71-09	254.75
Azoxystrobin	131860-33-8	250.50
Bifenazate	149877-41-8	250.50
Bifenthrin	82657-04-3	251.25
Boscalid	188425-85-6	250.75
Captan	133-06-2	248.25
Carbaryl	63-25-2	251.25
Carbofuran	1563-66-2	253.00
Chlorantraniliprole	500008-45-7	251.25
gamma-Chlordane	5103-74-2	250.25
Chlorfenapyr	122453-73-0	252.75
Chlorpyrifos (Dursban)	2921-88-2	251.50
Clofentezine	74115-24-5	250.00
Coumaphos	56-72-4	252.50
Cyfluthrin ³	68359-37-5	251.50
Cypermethrin ³	52315-07-8	252.00
Daminozide (Alar)	1596-84-5	253.25
Diazinon	333-41-5	250.25

Research Use Only

Certificate Number 6132.01

Dichlorvos	62-73-7	252.50
Dimethoate	60-51-5	247.50
Dimethomorph ⁴	110488-70-5	246.25
Ethoprophos (Ethoprop)	13194-48-4	250.00
Etofenprox	80844-07-1	252.25
Etoxazole	153233-91-1	251.50
Fenhexamid	126833-17-8	250.00
Fenoxycarb	72490-01-8	249.50
Fenpyroximate	111812-58-9	250.75
Fipronil	120068-37-3	252.50
Flonicamid	158062-67-0	250.25
Fludioxonil	131341-86-1	246.25
Hexythiazox	78587-05-0	251.00
Imazalil	35554-44-0	253.50
Imidacloprid	138261-41-3	251.25
Japanese Aflatoxin mixture	75-05-8	100.20
Aflatoxin B1	1162-65-8	25.10
Aflatoxin B2	7220-81-7	25.00
Aflatoxin G1	1165-39-5	25.00
Aflatoxin G2	7241-98-7	25.10
Kresoxim-methyl	143390-89-0	250.25
Malathion	121-75-5	250.50
Metalaxyl	57837-19-1	245.25
Methiocarb	2032-65-7	250.75
Methomyl	16752-77-5	251.25
Mevinphos ⁵	7786-34-7	249.25
MGK-264	113-48-4	253.00
Myclobutanil	88671-89-0	250.00
Naled	300-76-5	250.75
Ochratoxin A	303-47-9	25.58
Oxamyl	23135-22-0	250.50
Paclobutrazol	76738-62-0	251.50
Parathion-methyl	298-00-0	248.25
Pentachloronitrobenzene	82-68-8	248.75
Permethrin ⁶	52645-53-1	250.75
Phosmet (Imidan)	732-11-6	251.50
Piperonyl butoxide	51-03-6	247.25

Research Use Only

Certificate Number 6132.01

Prallethrin	23031-36-9	251.25
Propiconazole (Tilt) ³	60207-90-1	251.50
Propoxur (Baygon)	114-26-1	250.00
Pyrethrins	23031-36-9	250.09
Pyrethrin I (Pyrethrins)	121-21-1	140.32
Pyrethrin II (Pyrethrins)	121-29-9	69.42
Cinerin I (Pyrethrins)	25402-06-6	14.24
Cinerin II (Pyrethrins)	121-20-0	9.50
Jasmolin I (Pyrethrins)	4466-14-2	9.97
Jasmolin II (Pyrethrins)	1172-63-0	6.65
Pyridaben	96489-71-3	251.25
Spinetoram ⁷	187166-40-1	246.50
Spinosad	168316-95-8	246.75
Spinosyn A	131929-60-7	130.28
Spinosyn D	131929-63-0	108.08
Spiromesifen	283594-90-1	251.00
Spirotetramat	203313-25-1	252.00
Spiroxamine ⁸	118134-30-8	250.00
Tebuconazol	107534-96-3	250.25
Thiacloprid	111988-49-9	250.75
Thiamethoxam	153719-23-4	250.75
Trifloxystrobin	141517-21-7	251.75

¹Uncertainties associated with the prepared concentrations reported on this certificate do not exceed 9.6%.

²B1a=87.3%, B1b=8.1%.

³Mixture of isomers.

⁴43% isomer (E) and 55% isomer (Z).

⁵95% (E) and 4% (Z) isomers.

⁶46% cis and 54% trans isomers.

⁷71.6% Spinosyn J, 25.0% Spinosyn L and 1.7% trace of other isomers.

⁸55.5% cis isomer and 44.5% trans isomer.

CERTIFICATE OF ANALYSIS

Product Name: ONE Pesticide⁴²⁰™ Reagent Kit
Product Number: COP-001KT
Component Number: COP-QC-01
Component Description: ONE Pesticide⁴²⁰™ Quality Control 1; 4 mL of 15 ng/mL
 in Acetonitrile with 0.1% formic acid

Lot: 2962377

Manufacture Date: 06-Jan-2022

Expiration Date: 06-Aug-2022

Internal Standards (COP-IntStd) expiration is the same as the kit expiration

Storage Conditions: -20°C

Please refer to SDS for complete safety information. Link to the SDS can be found on the product page at www.perkinelmer.com.

ANALYTE	CAS #	PREPARED CONCENTRATION (ng/mL) ¹
Abamectin ²	71751-41-2	15.06
Acephate	30560-19-1	15.03
Acequinocyl	57960-19-7	14.84
Acetamiprid	135410-20-7	14.73
Aldicarb	116-06-3	15.14
alpha-Chlordane	5103-71-09	15.29
Azoxystrobin	131860-33-8	15.03
Bifenazate	149877-41-8	15.03
Bifenthrin	82657-04-3	15.08
Boscalid	188425-85-6	15.05
Captan	133-06-2	14.90
Carbaryl	63-25-2	15.08
Carbofuran	1563-66-2	15.18
Chlorantraniliprole	500008-45-7	15.08
gamma-Chlordane	5103-74-2	15.02
Chlorfenapyr	122453-73-0	15.17
Chlorpyrifos (Dursban)	2921-88-2	15.09
Clofentezine	74115-24-5	15.00
Coumaphos	56-72-4	15.15
Cyfluthrin ³	68359-37-5	15.09
Cypermethrin ³	52315-07-8	15.12
Daminozide (Alar)	1596-84-5	15.20
Diazinon	333-41-5	15.02

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Dichlorvos	62-73-7	15.15
Dimethoate	60-51-5	14.85
Dimethomorph ⁴	110488-70-5	14.78
Ethoprophos (Ethoprop)	13194-48-4	15.00
Etofenprox	80844-07-1	15.14
Etoxazole	153233-91-1	15.09
Fenhexamid	126833-17-8	15.00
Fenoxycarb	72490-01-8	14.97
Fenpyroximate	111812-58-9	15.05
Fipronil	120068-37-3	15.15
Flonicamid	158062-67-0	15.02
Fludioxonil	131341-86-1	14.78
Hexythiazox	78587-05-0	15.06
Imazalil	35554-44-0	15.21
Imidacloprid	138261-41-3	15.08
Japanese Aflatoxin mixture	75-05-8	6.01
Aflatoxin B1	1162-65-8	1.51
Aflatoxin B2	7220-81-7	1.50
Aflatoxin G1	1165-39-5	1.50
Aflatoxin G2	7241-98-7	1.51
Kresoxim-methyl	143390-89-0	15.02
Malathion	121-75-5	15.03
Metalaxyl	57837-19-1	14.72
Methiocarb	2032-65-7	15.05
Methomyl	16752-77-5	15.08
Mevinphos ⁵	7786-34-7	14.96
MGK-264	113-48-4	15.18
Myclobutanil	88671-89-0	15.00
Naled	300-76-5	15.05
Ochratoxin A	303-47-9	1.53
Oxamyl	23135-22-0	15.03
Paclobutrazol	76738-62-0	15.09
Parathion-methyl	298-00-0	14.90
Pentachloronitrobenzene	82-68-8	14.93
Permethrin ⁶	52645-53-1	15.05
Phosmet (Imidan)	732-11-6	15.09
Piperonyl butoxide	51-03-6	14.84

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Certificate Number 6132.01

Prallethrin	23031-36-9	15.08
Propiconazole (Tilt) ³	60207-90-1	15.09
Propoxur (Baygon)	114-26-1	15.00
Pyrethrins	23031-36-9	15.01
Pyrethrin I (Pyrethrins)	121-21-1	8.42
Pyrethrin II (Pyrethrins)	121-29-9	4.17
Cinerin I (Pyrethrins)	25402-06-6	0.85
Cinerin II (Pyrethrins)	121-20-0	0.57
Jasmolin I (Pyrethrins)	4466-14-2	0.60
Jasmolin II (Pyrethrins)	1172-63-0	0.40
Pyridaben	96489-71-3	15.08
Spinetoram ⁷	187166-40-1	14.79
Spinosad	168316-95-8	14.81
Spinosyn A	131929-60-7	7.82
Spinosyn D	131929-63-0	6.48
Spiromesifen	283594-90-1	15.06
Spirotetramat	203313-25-1	15.12
Spiroxamine ⁸	118134-30-8	15.00
Tebuconazol	107534-96-3	15.02
Thiacloprid	111988-49-9	15.05
Thiamethoxam	153719-23-4	15.05
Trifloxystrobin	141517-21-7	15.11

¹Uncertainties associated with the prepared concentrations reported on this certificate do not exceed 9.6%.

²B1a=87.3%, B1b=8.1%.

³Mixture of isomers.

⁴43% isomer (E) and 55% isomer (Z).

⁵95% (E) and 4% (Z) isomers.

⁶46% cis and 54% trans isomers.

⁷71.6% Spinosyn J, 25.0% Spinosyn L and 1.7% trace of other isomers.

⁸55.5% cis isomer and 44.5% trans isomer.

Research Use Only

CERTIFICATE OF ANALYSIS

Product Name: ONE Pesticide⁴²⁰™ Reagent Kit
Product Number: COP-001KT
Component Number: COP-QC-02⁹
Component Description: ONE Pesticide⁴²⁰™ Quality Control 2; 4 mL of 75 ng/mL
in Acetonitrile with 0.1% formic acid

Lot: 2962377-2

Manufacture Date: 06-Jan-2022

Expiration Date: 06-Aug-2022

Internal Standards (COP-IntStd) expiration is the same as the kit expiration

Storage Conditions: -20°C

Please refer to SDS for complete safety information. Link to the SDS can be found on the product page at www.perkinelmer.com.

ANALYTE	CAS #	PREPARED CONCENTRATION (ng/mL) ¹
Abamectin ²	71751-41-2	75.30
Acephate	30560-19-1	75.15
Acequinocyl	57960-19-7	74.18
Acetamiprid	135410-20-7	73.65
Aldicarb	116-06-3	75.68
alpha-Chlordane	5103-71-09	76.43
Azoxystrobin	131860-33-8	75.15
Bifenazate	149877-41-8	75.15
Bifenthrin	82657-04-3	75.38
Boscalid	188425-85-6	75.23
Captan	133-06-2	74.48
Carbaryl	63-25-2	75.38
Carbofuran	1563-66-2	75.90
Chlorantraniliprole	500008-45-7	75.38
gamma-Chlordane	5103-74-2	75.08
Chlorfenapyr	122453-73-0	75.83
Chlorpyrifos (Dursban)	2921-88-2	75.45
Clofentezine	74115-24-5	75.00
Coumaphos	56-72-4	75.75
Cyfluthrin ³	68359-37-5	75.45
Cypermethrin ³	52315-07-8	75.60
Daminozide (Alar)	1596-84-5	75.98
Diazinon	333-41-5	75.08

Research Use Only

Certificate Number 6132.01

Dichlorvos	62-73-7	75.75
Dimethoate	60-51-5	74.25
Dimethomorph ⁴	110488-70-5	73.88
Ethoprophos (Ethoprop)	13194-48-4	75.00
Etofenprox	80844-07-1	75.68
Etoxazole	153233-91-1	75.45
Fenhexamid	126833-17-8	75.00
Fenoxycarb	72490-01-8	74.85
Fenpyroximate	111812-58-9	75.23
Fipronil	120068-37-3	75.75
Flonicamid	158062-67-0	75.08
Fludioxonil	131341-86-1	73.88
Hexythiazox	78587-05-0	75.30
Imazalil	35554-44-0	76.05
Imidacloprid	138261-41-3	75.38
Japanese Aflatoxin mixture	75-05-8	30.06
Aflatoxin B1	1162-65-8	7.53
Aflatoxin B2	7220-81-7	7.50
Aflatoxin G1	1165-39-5	7.50
Aflatoxin G2	7241-98-7	7.53
Kresoxim-methyl	143390-89-0	75.08
Malathion	121-75-5	75.15
Metalaxyl	57837-19-1	73.58
Methiocarb	2032-65-7	75.23
Methomyl	16752-77-5	75.38
Mevinphos ⁵	7786-34-7	74.78
MGK-264	113-48-4	75.90
Myclobutanil	88671-89-0	75.00
Naled	300-76-5	75.23
Ochratoxin A	303-47-9	7.67
Oxamyl	23135-22-0	75.15
Paclobutrazol	76738-62-0	75.45
Parathion-methyl	298-00-0	74.48
Pentachloronitrobenzene	82-68-8	74.63
Permethrin ⁶	52645-53-1	75.23
Phosmet (Imidan)	732-11-6	75.45
Piperonyl butoxide	51-03-6	74.18

Research Use Only

Certificate Number 6132.01

Prallethrin	23031-36-9	75.38
Propiconazole (Tilt) ³	60207-90-1	75.45
Propoxur (Baygon)	114-26-1	75.00
Pyrethrins	23031-36-9	75.03
Pyrethrin I (Pyrethrins)	121-21-1	42.09
Pyrethrin II (Pyrethrins)	121-29-9	20.83
Cinerin I (Pyrethrins)	25402-06-6	4.27
Cinerin II (Pyrethrins)	121-20-0	2.85
Jasmolin I (Pyrethrins)	4466-14-2	2.99
Jasmolin II (Pyrethrins)	1172-63-0	1.99
Pyridaben	96489-71-3	75.38
Spinetoram ⁷	187166-40-1	73.95
Spinosad	168316-95-8	74.03
Spinosyn A	131929-60-7	39.09
Spinosyn D	131929-63-0	32.42
Spiromesifen	283594-90-1	75.30
Spirotetramat	203313-25-1	75.60
Spiroxamine ⁸	118134-30-8	75.00
Tebuconazol	107534-96-3	75.08
Thiacloprid	111988-49-9	75.23
Thiamethoxam	153719-23-4	75.23
Trifloxystrobin	141517-21-7	75.53

¹Uncertainties associated with the prepared concentrations reported on this certificate do not exceed 9.6%.

²B1a=87.3%, B1b=8.1%.

³Mixture of isomers.

⁴43% isomer (E) and 55% isomer (Z).

⁵95% (E) and 4% (Z) isomers.

⁶46% cis and 54% trans isomers.

⁷71.6% Spinosyn J, 25.0% Spinosyn L and 1.7% trace of other isomers.

⁸55.5% cis isomer and 44.5% trans isomer.

⁹COP-QC-02 is made from a different preparation than all the other solutions.

CERTIFICATE OF ANALYSIS

Product Name: ONE Pesticide⁴²⁰™ Reagent Kit
Product Number: COP-001KT
Component Number: COP-QC-03
Component Description: ONE Pesticide⁴²⁰™ Quality Control 3; 4 mL of 175 ng/mL
 in Acetonitrile with 0.1% formic acid

Lot: 2962377

Manufacture Date: 06-Jan-2022

Expiration Date: 06-Aug-2022

Internal Standards (COP-IntStd) expiration is the same as the kit expiration

Storage Conditions: -20°C

Please refer to SDS for complete safety information. Link to the SDS can be found on the product page at www.perkinelmer.com.

ANALYTE	CAS #	PREPARED CONCENTRATION (ng/mL) ¹
Abamectin ²	71751-41-2	175.70
Acephate	30560-19-1	175.35
Acequinocyl	57960-19-7	173.08
Acetamiprid	135410-20-7	171.85
Aldicarb	116-06-3	176.58
alpha-Chlordane	5103-71-09	178.33
Azoxystrobin	131860-33-8	175.35
Bifenazate	149877-41-8	175.35
Bifenthrin	82657-04-3	175.88
Boscalid	188425-85-6	175.53
Captan	133-06-2	173.78
Carbaryl	63-25-2	175.88
Carbofuran	1563-66-2	177.10
Chlorantraniliprole	500008-45-7	175.88
gamma-Chlordane	5103-74-2	175.18
Chlorfenapyr	122453-73-0	176.93
Chlorpyrifos (Dursban)	2921-88-2	176.05
Clofentezine	74115-24-5	175.00
Coumaphos	56-72-4	176.75
Cyfluthrin ³	68359-37-5	176.05
Cypermethrin ³	52315-07-8	176.40
Daminozide (Alar)	1596-84-5	177.28
Diazinon	333-41-5	175.18

Research Use Only

Certificate Number 6132.01

Dichlorvos	62-73-7	176.75
Dimethoate	60-51-5	173.25
Dimethomorph ⁴	110488-70-5	172.38
Ethoprophos (Ethoprop)	13194-48-4	175.00
Etofenprox	80844-07-1	176.58
Etoxazole	153233-91-1	176.05
Fenhexamid	126833-17-8	175.00
Fenoxycarb	72490-01-8	174.65
Fenpyroximate	111812-58-9	175.53
Fipronil	120068-37-3	176.75
Flonicamid	158062-67-0	175.18
Fludioxonil	131341-86-1	172.38
Hexythiazox	78587-05-0	175.70
Imazalil	35554-44-0	177.45
Imidacloprid	138261-41-3	175.88
Japanese Aflatoxin mixture	75-05-8	70.14
Aflatoxin B1	1162-65-8	17.57
Aflatoxin B2	7220-81-7	17.50
Aflatoxin G1	1165-39-5	17.50
Aflatoxin G2	7241-98-7	17.57
Kresoxim-methyl	143390-89-0	175.18
Malathion	121-75-5	175.35
Metalaxyl	57837-19-1	171.68
Methiocarb	2032-65-7	175.53
Methomyl	16752-77-5	175.88
Mevinphos ⁵	7786-34-7	174.48
MGK-264	113-48-4	177.10
Myclobutanil	88671-89-0	175.00
Naled	300-76-5	175.53
Ochratoxin A	303-47-9	17.90
Oxamyl	23135-22-0	175.35
Paclobutrazol	76738-62-0	176.05
Parathion-methyl	298-00-0	173.78
Pentachloronitrobenzene	82-68-8	174.13
Permethrin ⁶	52645-53-1	175.53
Phosmet (Imidan)	732-11-6	176.05
Piperonyl butoxide	51-03-6	173.08

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Certificate Number 6132.01

Prallethrin	23031-36-9	175.88
Propiconazole (Tilt) ³	60207-90-1	176.05
Propoxur (Baygon)	114-26-1	175.00
Pyrethrins	23031-36-9	175.06
Pyrethrin I (Pyrethrins)	121-21-1	98.22
Pyrethrin II (Pyrethrins)	121-29-9	48.59
Cinerin I (Pyrethrins)	25402-06-6	9.97
Cinerin II (Pyrethrins)	121-20-0	6.65
Jasmolin I (Pyrethrins)	4466-14-2	6.98
Jasmolin II (Pyrethrins)	1172-63-0	4.65
Pyridaben	96489-71-3	175.88
Spinetoram ⁷	187166-40-1	172.55
Spinosad	168316-95-8	172.73
Spinosyn A	131929-60-7	91.20
Spinosyn D	131929-63-0	75.65
Spiromesifen	283594-90-1	175.70
Spirotetramat	203313-25-1	176.40
Spiroxamine ⁸	118134-30-8	175.00
Tebuconazol	107534-96-3	175.18
Thiacloprid	111988-49-9	175.53
Thiamethoxam	153719-23-4	175.53
Trifloxystrobin	141517-21-7	176.23

¹Uncertainties associated with the prepared concentrations reported on this certificate do not exceed 9.6%.

²B1a=87.3%, B1b=8.1%.

³Mixture of isomers.

⁴43% isomer (E) and 55% isomer (Z).

⁵95% (E) and 4% (Z) isomers.

⁶46% cis and 54% trans isomers.

⁷71.6% Spinosyn J, 25.0% Spinosyn L and 1.7% trace of other isomers.

⁸55.5% cis isomer and 44.5% trans isomer.

Research Use Only

CERTIFICATE OF ANALYSIS

Product Name: ONE Pesticide⁴²⁰™ Reagent Kit
Product Number: COP-001KT
Component Number: COP-IntCal
Component Description: ONE Pesticide⁴²⁰™ Initial Calibrator; 1.5 mL of 1 µg/mL in Acetonitrile with 0.1% formic acid

Lot: 2962377

Manufacture Date: 06-Jan-2022

Expiration Date: 06-Aug-2022

Internal Standards (COP-IntStd) expiration is the same as the kit expiration

Storage Conditions: -20°C

Please refer to SDS for complete safety information. Link to the SDS can be found on the product page at www.perkinelmer.com.

ANALYTE	CAS #	PREPARED CONCENTRATION (µg/mL) ¹
Abamectin ²	71751-41-2	1.00
Acephate	30560-19-1	1.00
Acequinocyl	57960-19-7	0.99
Acetamiprid	135410-20-7	0.98
Aldicarb	116-06-3	1.01
alpha-Chlordane	5103-71-09	1.02
Azoxystrobin	131860-33-8	1.00
Bifenazate	149877-41-8	1.00
Bifenthrin	82657-04-3	1.01
Boscalid	188425-85-6	1.00
Captan	133-06-2	0.99
Carbaryl	63-25-2	1.01
Carbofuran	1563-66-2	1.01
Chlorantraniliprole	500008-45-7	1.01
gamma-Chlordane	5103-74-2	1.00
Chlorfenapyr	122453-73-0	1.01
Chlorpyrifos (Dursban)	2921-88-2	1.01
Clofentezine	74115-24-5	1.00
Coumaphos	56-72-4	1.01
Cyfluthrin ³	68359-37-5	1.01
Cypermethrin ³	52315-07-8	1.01
Daminozide (Alar)	1596-84-5	1.01
Diazinon	333-41-5	1.00

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Certificate Number 6132.01

Dichlorvos	62-73-7	1.01
Dimethoate	60-51-5	0.99
Dimethomorph ⁴	110488-70-5	0.99
Ethoprophos (Ethoprop)	13194-48-4	1.00
Etofenprox	80844-07-1	1.01
Etoxazole	153233-91-1	1.01
Fenhexamid	126833-17-8	1.00
Fenoxycarb	72490-01-8	1.00
Fenpyroximate	111812-58-9	1.00
Fipronil	120068-37-3	1.01
Flonicamid	158062-67-0	1.00
Fludioxonil	131341-86-1	0.99
Hexythiazox	78587-05-0	1.00
Imazalil	35554-44-0	1.01
Imidacloprid	138261-41-3	1.01
Japanese Aflatoxin mixture	75-05-8	0.40
Aflatoxin B1	1162-65-8	0.10
Aflatoxin B2	7220-81-7	0.10
Aflatoxin G1	1165-39-5	0.10
Aflatoxin G2	7241-98-7	0.10
Kresoxim-methyl	143390-89-0	1.00
Malathion	121-75-5	1.00
Metalaxyl	57837-19-1	0.98
Methiocarb	2032-65-7	1.00
Methomyl	16752-77-5	1.01
Mevinphos ⁵	7786-34-7	1.00
MGK-264	113-48-4	1.01
Myclobutanil	88671-89-0	1.00
Naled	300-76-5	1.00
Ochratoxin A	303-47-9	0.10
Oxamyl	23135-22-0	1.00
Paclobutrazol	76738-62-0	1.01
Parathion-methyl	298-00-0	0.99
Pentachloronitrobenzene	82-68-8	1.00
Permethrin ⁶	52645-53-1	1.00
Phosmet (Imidan)	732-11-6	1.01
Piperonyl butoxide	51-03-6	0.99

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Prallethrin	23031-36-9	1.01
Propiconazole (Tilt) ³	60207-90-1	1.01
Propoxur (Baygon)	114-26-1	1.00
Pyrethrins	23031-36-9	1.00
Pyrethrin I (Pyrethrins)	121-21-1	0.56
Pyrethrin II (Pyrethrins)	121-29-9	0.28
Cinerin I (Pyrethrins)	25402-06-6	0.06
Cinerin II (Pyrethrins)	121-20-0	0.04
Jasmolin I (Pyrethrins)	4466-14-2	0.04
Jasmolin II (Pyrethrins)	1172-63-0	0.03
Pyridaben	96489-71-3	1.01
Spinetoram ⁷	187166-40-1	0.99
Spinosad	168316-95-8	0.99
Spinosyn A	131929-60-7	0.52
Spinosyn D	131929-63-0	0.43
Spiromesifen	283594-90-1	1.00
Spirotetramat	203313-25-1	1.01
Spiroxamine ⁸	118134-30-8	1.00
Tebuconazol	107534-96-3	1.00
Thiacloprid	111988-49-9	1.00
Thiamethoxam	153719-23-4	1.00
Trifloxystrobin	141517-21-7	1.01

¹Uncertainties associated with the prepared concentrations reported on this certificate do not exceed 9.6%.

²B1a=87.3%, B1b=8.1%.

³Mixture of isomers.

⁴43% isomer (E) and 55% isomer (Z).

⁵95% (E) and 4% (Z) isomers.

⁶46% cis and 54% trans isomers.

⁷71.6% Spinosyn J, 25.0% Spinosyn L and 1.7% trace of other isomers.

⁸55.5% cis isomer and 44.5% trans isomer.

Approved by: *Mario P. Maniscalco*

Date: 25 January 2022 | 7:01 AM EST

Title: Sr. Manager Quality Assurance

- **Quality Standards:**
ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers A2LA Certificate Number 6132.01, Certified Reference Materials

ISO 9001:2015 – Quality Management System – Requirements
NSAI Registration Certificate Number 19.4411.
- **Manufacturing:** Prepared Concentrations are determined through use of volumetric measurements of known source materials. All pipettes are calibrated annually by ISO/IEC accredited providers. Volumetric flasks are serialized and calibrated to ISO 17025 standards.
- **Homogeneity:** This product is sufficiently homogeneous, and any sample size would be within the stated uncertainty. Minimal sample (injection) size is 3 µL.
- **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label.
- **Uncertainty of Certified Properties:** Reference material was produced by dilution from source material with known concentrations and uncertainty of constituents. ISO 17025 Calibrated pipettes and volumetric flasks with known uncertainties were used in the manufacturing process. Uncertainty was calculated following guidance from ISO Guide 35:2017.

$$u_{CRM} = \sqrt{u_{MFG}^2 + u_{BB}^2 + u_{LTS}^2 + u_{TS}^2}$$

A combined standard uncertainty for the product (u_{CRM}) was calculated based on the combined uncertainties of elements used in the manufacturing process (u_{MFG}), within batch inhomogeneity (u_{BB}), long-term stability (u_{LTS}) and transport stability (u_{TS}). The relative standard uncertainty for the product is expanded with a factor of k=2 not to exceed ±9.6%.

- **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only; not for clinical use. Purchaser must determine the suitability of the product for its particular use. PerkinElmer's sole and exclusive liability will be limited to replacement of product or refund of purchase price, at PerkinElmer's discretion. Notice of claims must be made within thirty (30) days from date of delivery. In addition, all products are subject to PerkinElmer's Terms and Conditions of Sale—Life Sciences Reagents located at www.perkinelmer.com/policies, or if customer and PerkinElmer have negotiated a separate agreement covering the sale of products hereunder then such mutually agreed upon terms shall apply.

Research Use Only

CERTIFICATE OF ANALYSIS

Product Name: ONE Pesticide^{420™} Reagent Kit

Product Number: COP-001KT

Component Number: COP-IntStd

Component Description: Internal Standard Solution (COP-IntStd) for ONE Pesticide^{420™} Reagent Kit; 2 x 4 mL in Acetonitrile with 0.1% formic acid

Lot: 2962377

Manufacture Date: 06-Jan-2022

Expiration Date: 06-Aug-2022

Storage Conditions: -20°C

Please refer to SDS for complete safety information. Link to the SDS can be found on the product page at www.perkinelmer.com.

ANALYTE	CAS #	NOMINAL PREPARED CONCENTRATION (µg/mL)
Acequinocyl-d25	57960-19-7	6
Atrazine-d5	163165-75-1	1.6
Bifenthrin-d5	83322-02-5	8
Boscalid-d4	188425-85-6	1.2
Captan-d6	1330190-00-5	16
Carbaryl-d7	362049-56-7	1.6
Chlorpyrifos (Diethyl-d10)	285138-81-0	2.4
Coumaphos-d10	287397-86-8	0.8
Daminozide-d4	1596-84-5	5
Diazinon-d10	100155-47-3	1.6
Dichlorovos-d6	203645-53-8	8
Dimethoate-d6	1219794-81-6	0.8
Doramectin	117704-25-3	5
Fenoxycarb-d3	72490-01-8	2.4
Fipronil-13C2 15N2	120068-37-3	0.8
Fludioxonil-13C3	1185003-07-9	1.2
Imidacloprid-d4	1015855-75-0	5.3
Malathion-d6	1189877-72-2	2.4
Methylparathion-d6	96740-32-8	4
Myclobutanil-d9	88671-89-0	1.6
Naled-d6	1216605-57-0	5
Ochratoxin A-d5	666236-28-8	10
Pentachloronitrobenzene-13C6	362044-64-2	4
Permethrin-d5	1794760-19-2	4

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Phosmet-d6	2083623-41-8	0.8
Piperonylbutoxide-d9	1329834-53-8	1.6
Pyridaben-d13	96489-71-3	1.6
Spirotetramat-d5	203313-25-1	4
Thiamethoxam-d3	1294048-82-0	1.6
Trifloxystrobin-d6	141517-21-7	0.8

Approved by: *Maris P. Maniscalco*

Date: 25 January 2022 | 7:01 AM EST

Title: Sr. Manager Quality Assurance

- Quality Standards:**

ISO 9001:2015 – Quality Management System – Requirements
NSAI Registration Certificate Number 19.4411.
- Manufacturing:** Nominal prepared concentrations are determined through use of volumetric measurements of source materials. All pipettes are calibrated annually by ISO/IEC accredited providers. Volumetric flasks are serialized and calibrated to ISO 17025 standards.
- Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label.
- Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only; not for clinical use. Purchaser must determine the suitability of the product for its particular use. PerkinElmer’s sole and exclusive liability will be limited to replacement of product or refund of purchase price, at PerkinElmer’s discretion. Notice of claims must be made within thirty (30) days from date of delivery. In addition, all products are subject to PerkinElmer’s Terms and Conditions of Sale—Life Sciences Reagents located at www.perkinelmer.com/policies, or if customer and PerkinElmer have negotiated a separate agreement covering the sale of products hereunder then such mutually agreed upon terms shall apply.

Rev 1.0