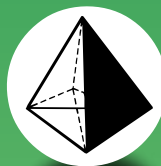


Cannabis Standards



AccuStandard[®]



**CHROMATOGRAPHIC[®]
SPECIALTIES INC.**

1-800-267-8103 • www.chromspec.com • tech@chromspec.com



Cannabis Standards

AccuStandard offers a comprehensive list of standards for testing the quality and safety of cannabis and hemp products for both medicinal and recreational purposes. Standards for testing include: pesticides, residual solvents, terpenes (for strain and flavor profiling), heavy metals, and active cannabinoid compounds. US State specific cannabis standards, including regulatory standards for Canada.

Contents			
Cannabinoids	below	Cannabis State Methods	
Hemp	below	Maryland	Residual Pesticides 5
Odor	below	Massachusetts	Residual Pesticides 5
Terpenes	1	Michigan	Residual Pesticides 5
ASTM Methods	1-2	Nevada	Pesticides 5
Proposed Method for Terpenoids	2	New York	Residual Pesticides 6
D8399 Pesticides in Cannabis	2	Oklahoma	Residual Pesticides 6
Pesticides in Dry Cannabis	2	Oregon	Residual Pesticides and Solvents 6-7
Cannabis State Methods	3-7	Pennsylvania	Pesticides 7
California	Residual Pesticides & Solvents 3	Canada	Residual Pesticides and Solvents 8
Colorado	Residual Pesticides 4	Heavy Metals	As, Cd, Cr, Pb, Hg, Ni, Tl 9
Connecticut	Pesticide Testing 4		Metal Calibration, Spike, Internal, and Tuning Solutions 10
Florida	Pesticides 4		

Cannabinoids

Compound	CAS	Cat. No.	TK No.	1,000 µg/mL Solvent	Unit
Cannabidiol (CBD)	13956-29-1	CP-CBD-01S	114-005	PT MeOH	1 mL
Cannabinol (CBN)	521-35-7	CP-CBN-01S	114-008	PT MeOH	1 mL
Delta-8-Tetrahydrocannabinol (THC-8)	5957-75-5	CP-8-THC-01S	114-001	PT MeOH	1 mL
Delta-9-Tetrahydrocannabinol (THC-9)	1972-08-3	CP-9-THC-01S	114-002	PT MeOH	1 mL
Delta-9-Tetrahydrocannabinolic acid A (THCA-A)	23978-85-0	CP-THCA-A-01S	114-010	ACN	1 mL
Cannabigerol (CBG)	25654-31-3	CP-CBG-01S	114-009	PT MeOH	1 mL
Cannabichromene (CBC)	20675-51-8	CP-CBC-01S	114-004	PT MeOH	1 mL

Cannabinoid Mix Standard

CP-CANNA-MIX-01

1000 µg/mL each in PT Methanol

1 mL
3 comps.

Restrictions may apply, contact us for information.

Cannabidiol (CBD)
Cannabinol (CBN)
Delta-9-Tetrahydrocannabinol (THC)

Hemp

Different cultivars of cannabis plants are used in various ways. Plants that have been bred to have higher THC content are for medicinal and recreational uses, and those bred to have lower THC levels can be used for hemp production. Hemp is a crop that is harvested for the fibers of the plant and can be used to make clothing, paper, and other products. Currently, USDA regulations stipulate hemp crops must be below 0.3% w/w for total delta-9 tetrahydrocannabinol (considering both THC and THCA) on a dry weight basis of the sample.

Compound	CAS	Cat. No.	TK No.	1,000 µg/mL Solvent	Unit
Delta-9-Tetrahydrocannabinol (THC-9)	1972-08-3	CP-9-THC-01S	114-002	PT MeOH	1 mL
Delta-9-Tetrahydrocannabinolic acid A (THCA-A)	23978-85-0	CP-THCA-A-01S	114-010	ACN	1 mL

Cannabis Odor

Volatile Sulfur Compounds (VSCs) are a group of chemical compounds that have been evaluated for its possible role in enhancing cannabis products flavor and aroma. These CRMs are designed to help test for traces of VSCs in cannabis to help investigate that role and its potential therapeutic advantages.

3-Mercaptohexyl acetate

CP-ODOR-001S

1000 µg/mL in Isopropanol

1 mL

3-Mercapto-1-hexanol

CP-ODOR-002S

1000 µg/mL in Isopropanol

1 mL

Cannabis Terpenes

SOLUTIONS at 100 µg/mL in PT Methanol

Compound	CAS	Cat. No.	Unit
(-)-alpha-Bisabolol	23089-26-1	CP-TER-001S	1 mL
beta-Pinene	18172-67-3	CP-TER-002S	1 mL
(-)-Borneol	464-45-9	CP-TER-003S	1 mL
(-)-Caryophyllene oxide	1139-30-6	CP-TER-004S	1 mL
(-)-Guaiool	489-86-1	CP-TER-005S	1 mL
(-)-Isopulegol	89-79-1	CP-TER-006S	1 mL
(+)-Borneol	464-43-7	CP-TER-007S	1 mL
(+)-Fenchone	4695-62-9	CP-TER-008S	1 mL
Eucalyptol	470-82-6	CP-TER-009S	1 mL
alpha-Humulene	6753-98-6	CP-TER-010S	1 mL
alpha-Pinene	80-56-8	CP-TER-011S	1 mL
alpha-Terpinene	99-86-5	CP-TER-012S	1 mL
beta-Caryophyllene	87-44-5	CP-TER-013S	1 mL
beta-Myrcene	123-35-3	CP-TER-014S	1 mL
Camphene	79-92-5	CP-TER-015S	1 mL
Camphor	76-22-2	CP-TER-016S	1 mL
3-Carene	13466-78-9	CP-TER-017S	1 mL
(R)-Limonene	5989-27-5	CP-TER-018S	1 mL
gamma-Terpinene	99-85-4	CP-TER-019S	1 mL
Geraniol	106-24-1	CP-TER-020S	1 mL
(1R)-(-)-Fenchone	7787-20-4	CP-TER-021S	1 mL
Linalool	78-70-6	CP-TER-022S	1 mL
Nerolidol	7212-44-4	CP-TER-023S	1 mL
Ocimene	13877-91-3	CP-TER-024S	1 mL
p-Cymene	99-87-6	CP-TER-025S	1 mL
Terpinolene	586-62-9	CP-TER-026S	1 mL
Valencene (Tech)	4630-07-3	CP-TER-027S	1 mL
Terpineol	8000-41-7	CP-TER-028S	1 mL
Farnesene (mixture of isomers)		CP-TER-029S	1 mL

Cannabis Terpene Set

CP-TER-MIX-SET 2 x 1 mL
CP-TER-MIX-001, CP-TER-MIX-002

Cannabis Terpene Mix 1

CP-TER-MIX-001 1 mL
100 µg/mL each in PT Methanol 14 comps.

(-)-alpha-Bisabolol	Camphene
(-)-Caryophyllene oxide	Camphor
(-)-Isopulegol	Linalool
(+)-Fenchone	Nerolidol
Eucalyptol	Ocimene
beta-Caryophyllene	Valencene (Tech)
beta-Myrcene	3-Carene

Cannabis Terpene Mix 2

CP-TER-MIX-002 1 mL
100 µg/mL each in PT Methanol 14 comps.

beta-Pinene	(R)-Limonene
(-)-Guaiool	gamma-Terpinene
(+)-Borneol	Geraniol
(-)-Borneol	(1R)-(-)-Fenchone
alpha-Humulene	p-Cymene
alpha-Pinene	Terpinolene
alpha-Terpinene	Terpineol

Cannabis Terpene Mix 3

CP-TER-MIX-003 1 mL
250 µg/mL each in Isopropanol 19 comps.

Myrcene	Camphene
p-Isopropyltoluene	Geraniol
D-L-a-Pinene	R-Limonene
alpha-Humulene	Linalool
Nerolidol	Terpinolene
(-)-Isopulegol	(-)-alpha-Bisabolol
Ocimene	alpha-Terpinene
(-)-Guaiool	beta-Caryophyllene
gamma-Terpinene	delta-3-Carene
L-b-Pinene	

ASTM Proposed Method for Terpenoids

Terpenoids in Cannabis Standard

ASTM-P-0151-01

2500 µg/mL each in Isopropanol

1 mL
21 comps.

(-)-alpha-Bisabolol	Geraniol	Nerolidol
Camphene	(-)-Guaiool	Ocimene
delta-3-Carene	alpha-Humulene	D-L-a-Pinene
beta-Caryophyllene	(-)-Isopulegol	L-b-Pinene
(-)-Caryophyllene oxide	R-Limonene	alpha-Terpinene
p-Isopropyltoluene	Linalool	Terpinolene
Eucalyptol	Myrcene	gamma-Terpinene

Terpenoids in Cannabis - Internal Standard

ASTM-P-0151-01-IS

ASTM-P-0151-01-IS-PAK

1000 µg/mL in Isopropanol

1 mL
5 x 1 mL

(±)-Linalool-d₃

Visit our website for the latest cannabis updates

<https://www.accustandard.com/cannabis-standards>

Custom Formulations

<https://www.accustandard.com/custom-quote-request>



ISO 17034 • 17025 • 9001

ASTM D8399 Pesticides in Cannabis

D8399 Pesticides in Cannabis

Mix 1

D-8399-01

100 µg/mL each in Acetonitrile 1 mL
12 comps.

Abamectin	Malathion
Azoxystrobin	Myclobutanil
Bifenazate	Permethrin
Etoxazole	Spinosad
Imazalil	Spirotetramat
Imidacloprid	Tebuconazol

D8399 Pesticides in Cannabis

Mix 2

D-8399-02

100 µg/mL each in Acetonitrile 1 mL
19 comps.

Acetamidipr	Kresoxim-methyl
Boscalid	Metalaxyl
Carbaryl	Methomyl
Chlorantraniliprole	Oxamyl
Clofentezine	Propiconazole
Dimethomorph	Pyridaben
Fenpyroximate	Spinetoram
Fonicamid	Thiamethoxam
Fludioxonil	Trifloxystrobin
Hexythiazox	

D8399 Pesticides in Cannabis

Mix 3

D-8399-03

100 µg/mL each in Acetonitrile 1 mL
26 comps.

Aldicarb	Thiacloprid
Carbofuran	Acephate
Chlorpyrifos	Acequinocyl
Daminozide	Azadirachtin
Dimethoate	Benzovindiflupyr
Ethoprop	Bifenthrin
Etofenprox	Diazinon
Fenoxycarb	Dodemorph acetate
Fipronil	Naled
Methiocarb	Imidan
Paclobutrazol	Piperonyl butoxide
Propoxur	Prallethrin
Spiroxamine	Pyrethrins

Spirodiclofen

P-938S-CN

100 µg/mL each in Acetonitrile 1 mL

Spiromesifen

P-960S-CN

100 µg/mL each in Acetonitrile 1 mL

D8399 Pesticides in Cannabis

Mix 4

D-8399-04

100 µg/mL in Acetonitrile 1 mL
26 comps.

Allethrin	Iprodione
Buprofezin	Methoprene
Clothianidin	Mevinphos
Coumaphos	Novaluron
Cyantraniliprole	Sumithrin
Cyprodinil	Pirimicarb
Deltamethrin	Pyraclostrobin
Dichlorvos	Resmethrin
Dinotefuran	Tebufenozide
Fensulfthion	Teflubenzuron
Fenthion	Tetrachlorvinphos Z
Fenvalerate	Tetramethrin
Fluopyram	Thiophanate-methyl

ASTM D8399 Pesticides in Cannabis Set

D-8399-SET

6 x 1 mL
D-8399-01, D-8399-02, D-8399-03, D-8399-04,
P-938S-CN, P-960S-CN

ASTM Pesticides in Dried Cannabis

Pesticides in Dried Cannabis Standard

ASTM-CP-PEST

100 µg/mL each in Acetonitrile 1 mL
17 comps.

Chlorfenapyr	Terrazole
Chlorpyrifos (Dursban)	Fenthion
Cyfluthrin	Fenvalerate
Cypermethrin	Kinoprene
Diazinon	MGK-264
Endosulfan I	Parathion-methyl
Endosulfan II	Permethrin
Endosulfan sulfate	Pentachloronitrobenzene
Etofenprox	



California Cannabis Residual Pesticides

California Category I Residual Pesticide Mix 1

CP-CA-01 1 mL
100 µg/mL each in Acetonitrile 20 comps.

Daminozide	Dimethoate	Methiocarb
Aldicarb	Chlorpyrifos	Mevinphos
Propoxur	Ethoprop	Paclobutrazol
Carbofuran	Etofenprox	Parathion-methyl
Chlorfenapyr	Fenoxycarb	Spiroxamine
Coumaphos	Fipronil	Thiacloprid
Dichlorvos	Imazalil	

California Category II Residual Pesticide (Chlordane tech)

CP-CA-02 1 mL
100 µg/mL in Methanol

Chlordane (tech)

California Category III Residual Pesticide Mix 3

CP-CA-03 1 mL
100 µg/mL each in Acetonitrile 29 comps.

Acetamiprid	Fenpyroximate	Oxamyl
Azoxystrobin	Flonicamid	Pyridaben
Bifenazate	Fludioxonil	Spinetoram
Boscalid	Etoxazole	Spinosad
Captan	Hexythiazox	Spirotetramat
Carbaryl	Imidacloprid	Tebuconazol
Chlorantraniliprole	Kresoxim-methyl	Thiamethoxam
Clofentezine	Metalaxyl	Propiconazole
Dimethomorph	Methomyl	Trifloxystrobin
Fenhexamid	Myclobutanil	

California Category IV Residual Pesticide Mix 4

CP-CA-04 1 mL
100 µg/mL each in Acetonitrile 16 comps.

Abamectin	Diazinon	Permethrin
Acequinocyl	Imidan	Piperonyl butoxide
Acephate	Malathion	Prallethrin
Bifenthrin	Naled	Pyrethrins
Cyfluthrin	Pentachloro-	Spiromesifen
Cypermethrin	nitrobenzene	

California Cannabis Residual Solvents

California Category I Residual Solvent Mix

CP-CA-RS-01 1 mL
5000 µg/mL each in PT Methanol 5 comps.

1,2-Dichloroethane	Chloroform	Trichloroethene
Benzene	Dichloromethane	

California Category II Residual Solvent

CP-CA-RS-02 * 1 mL
5000 µg/mL in Water

Ethylene oxide

California Category III Residual Solvent Mix

CP-CA-RS-03 1 mL
5000 µg/mL each in Water 7 comps.

Acetone	Ethyl acetate	Isopropanol
Acetonitrile	Diethyl ether	Methyl alcohol
Ethanol		

* ColdPack required to maintain integrity of product.

California Cannabis Residual Solvents (continued)

California Category IV Residual Solvent Mix

CP-CA-RS-04 1 mL
5000 µg/mL each in Ethanol 7 comps.

<i>n</i> -Heptane	Toluene	<i>p</i> -Xylene
<i>n</i> -Hexane	<i>o</i> -Xylene	<i>m</i> -Xylene
<i>n</i> -Pentane		

California Category V Residual Solvent Mix

CP-CA-RS-05 1 mL
5000 µg/mL each in Ethanol 2 comps.

<i>n</i> -Butane	<i>n</i> -Propane
------------------	-------------------

California Residual Solvent Mix

CP-CA-RS-06 1 mL
At stated conc. (µg/mL) in DMA 3 comps.

<i>n</i> -Butane	5000	<i>n</i> -Propane	2000
Ethylene oxide	600		

California Residual Solvent Mix

CP-CA-RS-07 1 mL
1000 µg/mL each in DMA 12 comps.

<i>n</i> -Pentane	Isopropanol	<i>n</i> -Heptane
Ethanol	Acetonitrile	Xylene (total)
Diethyl ether	<i>n</i> -Hexane	Toluene
Acetone	Ethyl acetate	Methanol

California Category I Residual Solvent Mix

CP-CA-RS-08 1 mL
1000 µg/mL each in DMA 5 comps.

1,2-Dichloroethane	Chloroform	Trichloroethene
Benzene	Dichloromethane	

Colorado Cannabis Residual Pesticides

Colorado Residual Pesticide Set

CP-CO-SET 5 x 1 mL
CP-CO-01-R1, CP-CO-02, CP-CO-03, CP-CO-04, P-960S-CN

Colorado Cannabis Residual Pesticide Mix 1

CP-CO-01-R1 1 mL
100 µg/mL each in Acetonitrile 12 comps.

Abamectin	Imazalil	Permethrin
Azoxystrobin	Imidacloprid	Spinosad
Bifenazate	Malathion	Spirotetramat
Etoazole	Myclobutanil	Tebuconazol

Colorado Cannabis Residual Pesticide Mix 2

CP-CO-02 1 mL
100 µg/mL each in Acetonitrile 36 comps.

Allethrin	Endosulfan II	Phenothrin
Benzovindiflupyr	Endosulfan sulfate	Pirimicarb
Buprofezin	Etridiazole	Pyraclostrobin
Clothianidin	Fensulfothion	Quintozene
Coumaphos	Fenthion	Resmethrin
Cyantraniliprole	Fenvalerate	Spinetoram
Cyprodinil	Fluopyram	Spirodiclofen
Deltamethrin	Iprodione	Tebufenozide
Dimethomorph	Kinoprene	Teflubenzuron
Dinotefuran	Methoprene	Tetrachlorvinphos
Dodemorph	Mevinphos	Tetramethrin
Endosulfan I	Novaluron	Thiophanate-methyl

Colorado Cannabis Residual Pesticide Mix 3

CP-CO-03 1 mL
100 µg/mL each in Acetonitrile 26 comps.

Chlorpyrifos (Dursban)	Daminozide (Alar)	Paclbutrazol
Dimethoate	Diazinon	Parathion-methyl
Acephate	Ethoprop	Imidan
Acequinocyl	Etofenprox	Prallethrin
Aldicarb	Fenoxycarb	Propoxur (Baygon)
Carbofuran	Fipronil	Spiroxamine
Chlorfenapyr	Methiocarb	Thiacloprid
Cyfluthrin	MGK-264	Bifenthrin
Cypermethrin	Naled	

Colorado Cannabis Residual Pesticide Mix 4

CP-CO-04 1 mL
100 µg/mL each in Acetonitrile 24 comps.

Boscalid	Acetamidprid	Hexythiazox
Carbaryl	Atrazine	Kresoxim-methyl
L-Cyhalothrin	Chlorantraniliprole	Methomyl
Diuron (Karmex)	Clofentezine	Oxamyl
Metalaxyl	Fenhexamid	Pyridaben
Pyriproxyfen	Fenpyroximate	Trifloxystrobin
Thiabendazole	Fonicamid	Propiconazole
Thiamethoxam	Fludioxonil	Dichlorvos

Spiromesifen

P-960S-CN 1 mL
100 µg/mL in Acetonitrile

Colorado Cannabis Residual Solvents

Colorado Residual Solvents Mix 1

CP-CO-RS-01 1 mL
2000 µg/mL each in DMA 14 comp

Acetone	Benzene	p-Xylene
Ethanol	Toluene	m-Xylene
n-Heptane	n-Pentane	Methyl alcohol
2-Methylhexane	n-Hexane	Ethyl acetate
Isopropanol	o-Xylene	

Connecticut Cannabis Pesticide Testing

Connecticut Cannabis Pesticide Testing Standard

CP-CT-PEST-01-R1 1 mL
100 µg/mL each in Acetonitrile 13 comps.

Abamectin	Etoazole	Paclbutrazol
Acequinocyl	Imazalil	Pyrethrins
Bifenazate	Imidacloprid	Spinosad
Bifenthrin	Myclobutanil	Spirotetramat
Cyfluthrin		

Florida Cannabis Pesticides

Florida Cannabis Pesticide Mix 1

CP-FL-01 1 mL
100 µg/mL each in Acetonitrile 29 comps.

Azoxystrobin	Fenhexamid	Myclobutanil
Bifenazate	Fenpyroximate	Oxamyl
Boscalid	Fonicamid	Propiconazole
Captan	Fludioxonil	Pyridaben
Carbaryl	Hexythiazox	Spinosad
Chlorantraniliprole	Imidacloprid	Spirotetramat
Chlormequat chloride	Kresoxim-methyl	Tebuconazol
Clofentezine	Metalaxyl	Thiamethoxam
Dimethomorph	Methomyl	Trifloxystrobin
Etoazole		

Florida Cannabis Pesticide Mix 2

CP-FL-02 1 mL
100 µg/mL each in Acetonitrile 20 comps.

Daminozide	Dichlorvos	Methiocarb
Aldicarb	Dimethoate	Mevinphos
Propoxur	Ethoprop	Paclbutrazol
Carbofuran	Etofenprox	Parathion-methyl
Chlorfenapyr	Fenoxycarb	Spiroxamine
Coumaphos	Fipronil	Thiacloprid
Chlorpyrifos	Imazalil	

Florida Cannabis Pesticide

CP-FL-03 1 mL
100 µg/mL in Methanol
Chlordane (Tech Mix)

Florida Cannabis Pesticide Mix 4

CP-FL-04 1 mL
100 µg/mL each in Acetonitrile 16 comps.

Abamectin	Diazinon	Permethrin
Acephate	Imidan	Piperonyl butoxide
Acequinocyl	Malathion	Prallethrin
Bifenthrin	Naled	Pyrethrins
Cyfluthrin	Pentachloronitrobenzene	Spiromesifen
Cypermethrin		

Maryland Cannabis Residual Pesticides

Maryland Cannabis Residual Pesticide Set

CP-MD-SET

3 x 1 mL

CP-MD-01, CP-MD-02, CP-MD-03

Maryland Cannabis Residual Pesticide Mix 1

CP-MD-01

1 mL

100 µg/mL each in Acetonitrile

29 comps.

Acetamiprid	Clofentezine	Methomyl
Daminozide	Etoxazole	Myclobutanil
Aldicarb	(E)-Fenpyroximate	Oxamyl
Ancymidol	Fonicamid	Spinosad
Azoxystrobin	Flurprimidol	Spirotetramat
Bifenazate	Hexythiazox	Thiacloprid
Bonzi	Imidacloprid	Thiamethoxam
Boscalid	Kresoxim-methyl	Propiconazole
Carbaryl	Metalaxyl	Trifloxystrobin
Carbofuran	Methiocarb	

Maryland Cannabis Residual Pesticide Mix 2

CP-MD-02

1 mL

100 µg/mL each in Acetonitrile

7 comps.

Bifenthrin	cis-Permethrin	Piperonyl butoxide
Cyfluthrin	trans-Permethrin	Pyrethrins
Cypermethrin		

Maryland Cannabis Residual Pesticide Mix 3

CP-MD-03

1 mL

100 µg/mL each in Acetonitrile

8 comps.

Abamectin	Chlorpyrifos	Malathion
Diazinon	Ethephon	Spiromesifen
Dimethoate	Imidan	

Massachusetts Cannabis Residual Pesticides

Massachusetts Cannabis Residual Pesticide Mix

CP-MA-01-R1

1 mL

100 µg/mL each in Acetonitrile

8 comps.

Bifenazate	Etoxazole	Myclobutanil
Bifenthrin	Imazalil	Trifloxystrobin
Cyfluthrin	Imidacloprid	

Michigan Cannabis Residual Pesticides

Michigan Residual Pesticides Set

CP-MI-R1-SET

4 x 1 mL

CP-MI-01, CP-MI-02, CP-MI-03-R1, P-960S-CN

Michigan Residual Pesticides Mix 1

CP-MI-01

1 mL

100 µg/mL each in Acetonitrile

20 comps.

Abamectin	Daminozide	Methomyl
Acequinocyl	Fenoxycarb	Oxamyl
Aldicarb	(E)-Fenpyroximate	Propoxur
Carbaryl	Fonicamid	Spinosad
Carbofuran	Hexythiazox	Spirotetramat
Chlorantraniliprole	Imidacloprid	Thiamethoxam
Clofentezine	Methiocarb	

Michigan Residual Pesticides Mix 2

CP-MI-02

1 mL

100 µg/mL each in Acetonitrile

16 comps.

Acephate	Chlorpyrifos	Permethrin
Bifenthrin	Ethoprop	Phosmet
Cyfluthrin	Etofenprox	Prallethrin
Cypermethrin	Malathion	Pyrethrins
Diazinon	Methyl parathion	
Dimethoate	Naled	

Michigan Residual Pesticides Mix 3

CP-MI-03-R1

1 mL

100 µg/mL each in Acetonitrile

21 comps.

Pyridaben	Boscalid	Fludioxonil
Myclobutanil	Etoxazole	Chlorfenapyr
Pacllobutrazol	Bifenazate	Fipronil
Dichlorvos	Kresoxim-methyl	MGK-264
Propiconazole	Trifloxystrobin	Thiacloprid
Metalaxyl	Acetamiprid	Tebuconazole
Imazalil	Azoxystrobin	Spiroxamine

Spiromesifen

P-960S-CN

1 mL

100 µg/mL in Acetonitrile

Nevada Cannabis Pesticides

Nevada Cannabis Pesticide Mix 1

CP-NV-PEST-01

1 mL

100 µg/mL each in Acetonitrile

22 comps.

Acequinocyl	Imazalil	Trifloxystrobin
Bifenazate	Myclobutanil	Fludioxonil
Captan	Piperonyl butoxide	Abamectin
Cyfluthrin	Pyrethrins	Daminozide
Dimethomorph	Spinetoram	Bifenthrin
Etoxazole	Spinosad	Cypermethrin
Fonicamid	Thiamethoxam	Quintozene
Imidacloprid		

Nevada Cannabis Pesticide Mix 2

CP-NV-PEST-02

1 mL

100 µg/mL each in Acetonitrile

3 comps.

Fenhexamid	Spirotetramat	Thiophanate-methyl
------------	---------------	--------------------

New York Cannabis Residual Pesticides

New York Residual Pesticide Set

CP-NY-R1-SET

7 x 1 mL

CP-NY-01, CP-NY-02, CP-NY-03, CP-NY-04,
P-017S-CN, P-1083S-CN, P-1499S-CN

New York Residual Pesticide Mix 1

CP-NY-01

1 mL

100 µg/mL each in Acetonitrile

29 comps.

Acetamiprid	Etoazole	Myclobutanil
Azoxystrobin	Fenhexamid	Oxamyl
Bifenazate	Fenpyroximate	Propiconazole
Boscalid	Fonicamid	Pyridaben
Captan	Fludioxonil	Spinosad
Carbaryl	Hexythiazox	Spirotetramat
Chlorantranilprole	Imidacloprid	Tebuconazol
Chloromequat chloride	Kresoxim-methyl	Thiamethoxam
Clofentezine	Metalaxyl	Trifloxystrobin
Dimethomorph	Methomyl	

New York Residual Pesticide Mix 2

CP-NY-02

1 mL

100 µg/mL each in Acetonitrile

20 comps.

Daminozide	Dimethoate	Methiocarb
Aldicarb	Chlorpyrifos	Mevinphos
Propoxur	Ethoprop	Paclbutrazol
Carbofuran	Etofenprox	Parathion-methyl
Chlorfenapyr	Fenoxycarb	Spiroxamine
Coumaphos	Fipronil	Thiacloprid
Dichlorvos	Imazalil	

New York Residual Pesticide Mix 3

CP-NY-03

1 mL

100 µg/mL each in Acetonitrile

16 comps.

Abamectin	Diazinon	Permethrin
Acequinocyl	Imidan	Piperonyl butoxide
Acephate	Malathion	Prallethrin
Bifenthrin	Naled	Pyrethrins
Cyfluthrin	Pentachloro-	Spiromesifen
Cypermethrin	nitrobenzene	

New York Residual Pesticide Mix 4

CP-NY-04

1 mL

100 µg/mL each in Acetonitrile

2 comps.

MGK-264	3-Indolebuttruc acid
---------	----------------------

Chlordane (Tech Mix)

P-017S-CN

1 mL

100 µg/mL in Acetonitrile

Spinetoram

P-1083S-CN

1 mL

100 µg/mL in Acetonitrile

Azadirachtin

P-1499S-CN

1 mL

100 µg/mL in Acetonitrile

Oklahoma Cannabis Residual Pesticides

Oklahoma Residual Pesticides Set

CP-OK-SET

2 x 1 mL

CP-OK-01, P-960S-CN)

Oklahoma Residual Pesticides Set

CP-OK-01

1 mL

100 µg/mL each in Acetonitrile

12 comps.

Abamectin	Imazalil	Permethrin
Azoxystrobin	Imidacloprid	Spinosad
Bifenazate	Malathion	Spirotetramat
Etoazole	Myclobutanil	Tebuconazol

Spiromesifen

P-960S-CN

1 mL

100 µg/mL in Acetonitrile

Oregon Cannabis Residual Pesticides

Oregon Cannabis Residual Pesticide Set

CP-ORE-R1-SET

4 x 1 mL

CP-ORE-01, CP-ORE-02, CP-ORE-03-R1, P-960S-CN

Oregon Cannabis Residual Pesticide Mix 1

CP-ORE-01

1 mL

100 µg/mL each in Acetonitrile

20 comps.

Abamectin	Daminozide	Methomyl
Acequinocyl	(E)-Fenpyroximate	Oxamyl
Aldicarb	Fenoxycarb	Propoxur
Carbaryl	Fonicamid	Spinosad
Carbofuran	Hexythiazox	Spirotetramat
Chlorantranilprole	Imidacloprid	Thiamethoxam
Clofentezine	Methiocarb	

Oregon Cannabis Residual Pesticide Mix 2

CP-ORE-02

1 mL

100 µg/mL each in Acetonitrile

16 comps.

Acephate	Chlorpyrifos	Naled
Bifenthrin	Ethoprop	Permethrin
Cyfluthrin	Etofenprox	Phosmet
Cypermethrin	Malathion	Prallethrin
Diazinon	Methyl parathion	Pyrethrins
Dimethoate		

Oregon Cannabis Residual Pesticide Mix 3

CP-ORE-03-R1

1 mL

100 µg/mL each in Acetonitrile

22 comps.

Acetamiprid	Fludioxonil	Piperonyl butoxide
Azoxystrobin	Imazalil	Propiconazole
Bifenazate	Kresoxim-methyl	Pyridaben
Boscalid	Metalaxyl	Spiroxamine
Chlorfenapyr	MGK-264	Tebuconazol
Dichlorvos	Myclobutanil	Thiacloprid
Etoazole	Paclbutrazol	Trifloxystrobin
Fipronil		

Spiromesifen

P-960S-CN

1 mL

100 µg/mL in Acetonitrile

Technical Note

The Oregon Health Association (OHA) has classified & submitted three prioritized groupings of residue cannabis pesticides: fungicides, pyrethroids, and organophosphates with 59 targeted compounds, we offer 4 solutions to cover these 59 compounds.

Oregon Residual Solvents continued on next page

Oregon Cannabis Residual Solvents

Oregon Cannabis Residual Solvent Mix 1

CP-ORE-RS-01

1000 µg/mL each in Water

1 mL

11 comps.

Acetone	2-Ethoxyethanol	Isopropyl acetate
Acetonitrile	Ethyl acetate	Methanol
sec-Butanol	Ethyl ether	Isopropanol
1,4-Dioxane	Ethylene glycol	

Oregon Cannabis Residual Solvent Mix 2

CP-ORE-RS-02

1000 µg/mL each in Ethanol

1 mL

18 comps.

Benzene	<i>n</i> -Heptane	<i>n</i> -Pentane
Cumene	Hexane	Tetrahydrofuran
Cyclohexane	Ethylbenzene	Toluene
Dichloromethane	Isopentane	<i>o</i> -Xylene
2,2-Dimethylbutane	2-Methylpentane	<i>p</i> -Xylene
2,3-Dimethylbutane	3-Methylpentane	<i>m</i> -Xylene

Oregon Cannabis Residual Solvent Mix 3

CP-ORE-RS-03

1000 µg/mL each in Ethanol

1 mL

4 comps.

sec-Butanol	Isobutane
<i>n</i> -Propane	Neopentane

Oregon Cannabis Residual Solvent

CP-ORE-RS-04 *

1000 µg/mL in Water

1 mL

Ethylene oxide

* ColdPack required to maintain integrity of product.

Pennsylvania Cannabis Pesticides

Pennsylvania Cannabis Pesticide Mix 1

CP-PA-01-R1

100 µg/mL each in Acetonitrile

1 mL

32 comps.

Abamectin	Dichlorvos	MGK-264
Acephate	Diazinon	Naled
Acequinocyl	Dimethoate	Paclobutrazol
Aldicarb	Ethoprop	Permethrin
Bifenthrin	Etofenprox	Imidan
Carbofuran	Fenoxycarb	Piperonyl butoxide
Chlorfenapyr	Fipronil	Prallethrin
Chlorpyrifos	Imazalil	Propoxur
Cyfluthrin	Malathion	Spiroxamine
Cypermethrin	Methiocarb	Thiacloprid
Daminozide	Parathion-methyl	

Pennsylvania Cannabis Pesticide Mix 2

CP-PA-02

100 µg/mL each in Acetonitrile

1 mL

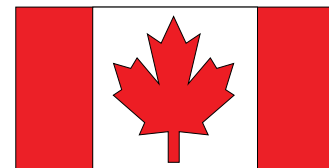
29 comps.

Acetamidrid	Fenpyroximate	Oxamyl
Azoxystrobin	Flonicamid	Pyridaben
Bifenazate	Fludioxonil	Spinetoram
Boscalid	Etoazole	Spinosad
Captan	Hexythiazox	Spirotetramat
Carbaryl	Imidacloprid	Tebuconazol
Chlorantraniliprole	Kresoxim-methyl	Thiamethoxam
Clofentezine	Metalaxyl	Propiconazole
Dimethomorph	Methomyl	Trifloxystrobin
Fenhexamid	Myclobutanil	



Canada Cannabis Regulatory Standards

Canada requires Licensed Producers (LPs) to submit samples of all cultivated cannabis products to independent laboratories for testing of almost 100 pesticides. The Pesticide Management Regulatory Agency (PMRA) has maintained a database that includes 22 registered pesticides for use on cannabis products. Recreational use of cannabis has been legal in Canada since October 2018. Health Canada (HC) maintains mandatory testing requirements for cannabis products to assure a healthy product for the end user. Below is the current published listing of regulated pesticides that have been approved by the Government of Canada, for both recreational and medicinal usage.



Canada Cannabis Pesticides

Canada Cannabis Pesticide Set

CP-CAN-R3-SET **6 x 1 mL**
 CP-CAN-01-R1, CP-CAN-02, CP-CAN-03-R1, CP-CAN-04,
 P-711S-CN, P-960S-CN

Canada Cannabis Pesticide Mix 1

CP-CAN-01-R1 **1 mL**
 100 µg/mL each in Acetonitrile 36 comps.

Allethrin	Endosulfan II	Phenothrin
Benzovindiflupyr	Endosulfan sulfate	Pirimicarb
Buprofezin	Etridiazole	Pyraclostrobin
Clothianidin	Fensulfothion	Quintozene
Coumaphos	Fenthion	Resmethrin
Cyantraniliprole	Fenvalerate	Spinetoram
Cyprodinil	Fluopyram	Spirodiclofen
Deltamethrin	Iprodione	Tebufenozide
Dinotefuran	Kinoprene	Teflubenzuron
Dimethomorph	Methoprene	Tetrachlorvinphos
Dodemorph	Mevinphos	Tetramethrin
Endosulfan I	Novaluron	Thiophanate-methyl

Technical Note

The original Canada Cannabis Pesticide Set has been revised to include Benzovindiflupyr which is a fungicide being monitored by Canada. This added analyte has been added to CP-CAN-01-R1 and is included in the revised Set.

Canada Cannabis Pesticide Mix 2

CP-CAN-02 **1 mL**
 100 µg/mL each in Acetonitrile 20 comps.

Abamectin	Daminozide	Methomyl
Acequinocyl	Fenoxycarb	Oxamyl
Carbaryl	(E)-Fenpyroximate	Propoxur
Carbofuran	Fonicamid	Spinosad
Chlorantraniliprole	Hexythiazox	Spirotetramat
Clofentezine	Imidacloprid	Thiamethoxam
Clofentezine	Methiocarb	

Canada Cannabis Pesticide Mix 3

CP-CAN-03-R1 **1 mL**
 100 µg/mL each in Acetonitrile 22 comps.

Acetamiprid	Fludioxonil	Piperonyl butoxide
Azoxystrobin	Imazalil	Pyridaben
Bifenazate	Kresoxim-methyl	Spiroxamine
Boscalid	Metalaxyl	Tebuconazol
Chlorfenapyr	MGK-264	Thiacloprid
Dichlorvos	Myclobutanil	Propiconazole
Etoxazole	Pacloutrazol	Trifloxystrobin
Fipronil		

Canada Cannabis Pesticides (continued)

Canada Cannabis Pesticide Mix 4

CP-CAN-04 **1 mL**
 100 µg/mL each in Acetonitrile 16 comps.

Acephate	Chlorpyrifos	Naled
Bifenthrin	Ethoprop	Permethrin
Cyfluthrin	Etofenprox	Phosmet
Cypermethrin	Malathion	Prallethrin
Diazinon	Methyl parathion	Pyrethrins
Dimethoate		

Azadirachtin

P-711S-CN **1 mL**
 100 µg/mL in Acetonitrile

Spiromesifen

P-960S-CN **1 mL**
 100 µg/mL in Acetonitrile

Canada Cannabis Residual Solvents

Canada Cannabis Residual Solvent Mix 1

CP-CAN-RS-01 **1 mL**
 5000 µg/mL each in PT Methanol 24 comps.

Acetic acid	Ethyl ether	2-Methyl-1-propanol
Anisole	Ethyl formate	MtBE
1-Butanol	Formic acid	Pentane
2-Butanol	Isobutyl acetate	1-Pentanol
Butyl acetate	Isopropyl acetate	1-Propanol
DMSO	Heptane	2-Propanol
Ethanol	Methyl acetate	Propyl acetate
Ethyl acetate	3-Methyl-1-butanol	Triethylamine

Canada Cannabis Residual Solvent Mix 2

CP-CAN-RS-02 **1 mL**
 5000 µg/mL each in PT Methanol 2 comps.

Acetone	Methyl ethyl ketone
---------	---------------------

Canada Cannabis Residual Solvent Mix 3 (Gases)

CP-CAN-RS-03 **1 mL**
 500 µg/mL each in PT Methanol 3 comps.

n-Butane	Propane
Isobutane	

Cannabis Heavy Metal Analysis

Regulations for the testing of heavy metals in cannabis products differ based on state requirements and the route of administration. The standards below can be used for commonly set maximum limits or to provide flexibility to allow calibration over a wide range of concentrations.

Heavy Metal Analysis

Element	Starting Material	Matrix	1000 µg/mL Cat. No.	Unit
Arsenic (As)	As	2-5% Nitric acid	ICP-03N-1	100 mL
			ICP-03N-5	500 mL
Cadmium (Cd)	Cd	2-5% Nitric acid	ICP-08N-1	100 mL
			ICP-08N-5	500 mL
Chromium (Cr)	Cr(NO ₃) ₃ •9H ₂ O	2-5% Nitric acid	ICP-13N-R-1	100 mL
			ICP-13N-R-5	500 mL
Lead (Pb)	Pb(NO ₃) ₂	2-5% Nitric acid	ICP-29N-1	100 mL
			ICP-29N-5	500 mL
Mercury (Hg)	Hg	10% Nitric acid	ICP-34N-1	100 mL
			ICP-34N-5	500 mL
Nickel (Ni)	Ni	2-5% Nitric acid	ICP-37N-1	100 mL
			ICP-37N-5	500 mL
Thallium (Tl)	TlNO ₃	2-5% Nitric acid	ICP-60N-1	100 mL
			ICP-60N-5	500 mL

Cannabis Metals 1

CP-MET-01-1 100 mL
At stated conc. (µg/mL) 4 comps
2-5% Nitric acid

Arsenic (As)	15
Cadmium (Cd)	5
Lead (Pb)	5
Mercury (Hg)	30

Cannabis Metals 2

CP-MET-02-1 100 mL
At stated conc. (µg/mL) 4 comps
2-5% Nitric acid

Arsenic (As)	20
Cadmium (Cd)	20
Lead (Pb)	50
Mercury (Hg)	10

Cannabis Metals Low & High Level Calibr. Standards

CP-MET-CAL-LOW-1 100 mL
CP-MET-CAL-HIGH-1 100 mL
At stated conc. (µg/mL) 2-5% Nitric acid 4 comps

	Low	High
Arsenic (As)	10	100
Cadmium (Cd)	10	100
Lead (Pb)	10	100
Mercury (Hg)	10	100

Cannabis Metals Initial Calibration Verification Standard

CP-MET-VER-1 100 mL
2-5% Nitric acid 26 comps.

Calcium	1000 µg/mL
Iron	1000 µg/mL
Potassium	1000 µg/mL
Magnesium	1000 µg/mL
Sodium	1000 µg/mL
Strontium	1000 µg/mL
Silver	10 µg/mL
Aluminum	10 µg/mL
Arsenic	10 µg/mL
Barium	10 µg/mL
Beryllium	10 µg/mL
Cadmium	10 µg/mL
Cobalt	10 µg/mL
Chromium	10 µg/mL
Copper	10 µg/mL
Manganese	10 µg/mL
Molybdenum	10 µg/mL
Nickel	10 µg/mL
Lead	10 µg/mL
Antimony	10 µg/mL
Selenium	10 µg/mL
Thallium	10 µg/mL
Vanadium	10 µg/mL
Zinc	10 µg/mL
Thorium	10 µg/mL
Uranium	10 µg/mL

Cannabis Metals Environmental Spike Mix

CP-MET-SPIKE-1 100 mL
2-5% Nitric acid, tr HF 24 comps.

Calcium	1000 µg/mL
Iron	1000 µg/mL
Potassium	1000 µg/mL
Magnesium	1000 µg/mL
Sodium	1000 µg/mL
Silver	100 µg/mL
Aluminum	100 µg/mL
Arsenic	100 µg/mL
Barium	100 µg/mL
Beryllium	100 µg/mL
Cadmium	100 µg/mL
Cobalt	100 µg/mL
Chromium	100 µg/mL
Manganese	100 µg/mL
Molybdenum	100 µg/mL
Lead	100 µg/mL
Antimony	100 µg/mL
Selenium	100 µg/mL
Thallium	100 µg/mL
Vanadium	100 µg/mL
Zinc	100 µg/mL
Uranium	100 µg/mL
Copper	100 µg/mL
Nickel	100 µg/mL

Cannabis Metals Environ. Calibration Standard

CP-MET-CAL-1 100 mL
10% Nitric acid 25 comps.

Calcium	1000 µg/mL
Iron	1000 µg/mL
Potassium	1000 µg/mL
Magnesium	1000 µg/mL
Sodium	1000 µg/mL
Silver	10 µg/mL
Aluminum	10 µg/mL
Arsenic	10 µg/mL
Barium	10 µg/mL
Beryllium	10 µg/mL
Cadmium	10 µg/mL
Cobalt	10 µg/mL
Chromium	10 µg/mL
Copper	10 µg/mL
Manganese	10 µg/mL
Molybdenum	10 µg/mL
Nickel	10 µg/mL
Lead	10 µg/mL
Antimony	10 µg/mL
Selenium	10 µg/mL
Thallium	10 µg/mL
Vanadium	10 µg/mL
Zinc	10 µg/mL
Thorium	10 µg/mL
Uranium	10 µg/mL

Cannabis Metals Internal Standard

CP-MET-INTSTD-1 100 mL
Each in 100 µg/mL 8 comps.
10% Nitric acid, tr HCl

Lithium-6	Indium
Scandium	Terbium
Germanium	Lutetium
Rhodium	Bismuth

Cannabis Metals Tuning Stock Solution

CP-MET-TUNSTOCK-1 100 mL
Each in 10 µg/mL 5 comps.
2-5% Nitric acid

Lithium	Thallium
Yttrium	Cobalt
Cerium	

Cannabis Metals Hg Calibration Solution

CP-MET-HG-0.01X-1 100 mL
10 µg/mL in 5% Nitric acid

Mercury

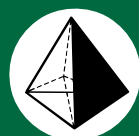
Cannabis Metals Mercury

CP-MET-HG-1 100 mL
1000 µg/mL in 10% Nitric acid

Mercury

Technical Note

Testing of heavy metals is important because metallic impurities can be absorbed from the soil when the plant grows, or can be introduced during preparation of the saleable product.



AccuStandard[®]

125 Market St, New Haven, CT 06513 USA

ISO 17034 • 17025 • 9001

AccuStandard.com

Rev. 11/23



**CHROMATOGRAPHIC
SPECIALTIES INC.**



1-800-267-8103 • www.chromspec.com • tech@chromspec.com