

Consumables Kits for Cannabis Flower and Hemp

Ensure the potency and safety of cannabis products





Overwhelmed by Regulations for Cannabis Potency and Safety Testing?

States and countries that have permitted the use of medicinal and recreational marijuana require rigorous quantitation of cannabis flower and hemp samples. Your lab may also need to identify trace levels of pesticides and mycotoxins.

Agilent Cannabis Consumables Kits minimize the need for tedious method development. Kits include the sample preparation products, analytical columns, and supplies you need to identify and quantify cannabinoids—or detect residual amounts of pesticides and mycotoxins. You will also receive an application compendium and a user guide, so you can get up and running in a fraction of the time.

- *Maximize your productivity and uptime.* Simplify decision-making by choosing from kits that support your full workflow, from sample preparation to analysis.
- *One-stop shopping.* In addition to preconfigured kits, Agilent offers flexible ordering options, including guided à la carte shopping and a custom chemical standards service. This allows you to source your entire workflow from one place.
- *Step-by-step guidance.* Shipped with every kit, our application compendium takes you from sample preparation to analysis using methods developed and verified by our scientists. and implement cannabis potency analysis.

Remember, too, that Agilent cannabis and hemp potency standards bestows confidence in cannabinoid testing.

Our time-saving mixes are at the highest concentrations available on the market enabling quantification at the highest levels. Alternatively create your own mixes using individual standards. All are rigorously tested and manufactured using ISO 17025 and 17034 accreditations.





Need to analyze for flavor and fragrance or other contaminants?

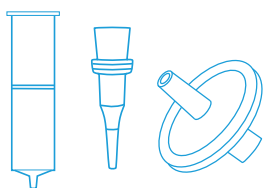
Are you looking to identify or characterize terpenes in your cannabis cultivars or measure the level of heavy metal contamination or residual solvents byproducts? Eliminate the hassle of shopping around for your cannabis testing columns and supplies. Just use our convenient ordering guide that recommends all the columns and supplies you would need for any of these analytical workflows with links to application methods to guide you through the method setup and pre-filled shopping carts for ease of ordering. www.agilent.com/chem/CannabisKitOrdering

What's in Each Kit?

Agilent Cannabis Consumables Kits include all the sample preparation products, columns, and supplies you need to start analyzing samples quickly—in one convenient place, and at a bundled price. You also get a detailed application compendium and user guide. These convenient all-in-one kits save you time and money. Whether you are analyzing for cannabinoids via LC/UV, or including pesticide and mycotoxin testing via LC/MS or a combination of LC/MS and GC/MS, Agilent has you covered.

 Pesticide and Mycotoxin Consumables Kits:
for cannabis flower samples

 Potency Consumables Kit:
for cannabis flower and hemp samples



Sample preparation

Cannabis is a dirty matrix. We'll show you how to protect your analytical flow path with proper sample preparation.



Containment and injection

A vial isn't just a vial. Protect the integrity of your final sample with industry-leading Agilent vials and caps.



LC supplies

LC mobile phase modifiers help improve chromatographic peak shape, sample loadability, and signal intensities that can improve data quality and decrease processing time.

400 runs strong

Kits are designed for 400 cannabis samples so you can manage your inventory and maintain peak productivity.

Looking for chemical standards?

Due to ever-changing regulations, chemical standards can be purchased separately. For more information, please see page 14.

Cannabis Pesticide and Mycotoxin Kit LC/MS and GC/MS

Intuvo 9000
(p/n 5610-2053)

Designed for:

Labs doing both LC/MS and GC/MS analyses for both pesticides and mycotoxins with an Agilent Intuvo 9000.



Cannabis and Hemp Potency Kit

(p/n 5610-2036)

Designed for:

Cannabinoid testing in cannabis flower and hemp.



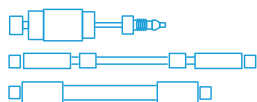
Cannabis Pesticide and Mycotoxin Kit

LC/MS only

(p/n 5610-2050)

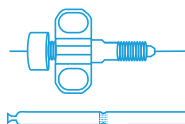
Designed for:

U.S. state pesticide and mycotoxin lists that only include LC/MS-amenable compounds.



LC separation

Agilent InfinityLab Poroshell 120 columns use high purity silica and advanced bonding chemistries to provide faster, more accurate results through superior peak shape.



GC supplies

Unique GC supplies like the Agilent Self Tightening column nut and Ultra Inert liner simplify installation, ensure exceptional results, and improve system performance.



GC separation

Agilent J&W Ultra Inert GC columns are rigorously tested to ensure exceptionally low bleed and consistently high inertness needed to optimize the delivery of active analytes directly to the MS detector.

Cannabis Pesticide and Mycotoxin Kit

LC/MS and GC/MS

7890/8890 General

(p/n 5610-2051)

Designed for:

U.S. labs doing both LC/MS and GC/MS analyses for both pesticides and mycotoxins.*



Cannabis Pesticide and Mycotoxin Kit

LC/MS and GC/MS

7890/8890 Canada

(p/n 5610-2052)

Designed for:

Canadian labs doing both LC/MS and GC/MS analyses for both pesticides and mycotoxins.*



*Part numbers 5610-2051 and 5610-2052 differ in GC column and liner choice. All other kit components are identical.

Spend Less Time on Method Development and More Time Making Money



Whether you are analyzing cannabinoids or pesticides and mycotoxins, when you purchase an Agilent Cannabis Consumables Kit, you will also receive a detailed application compendium for potency or safety analysis. Inside, you'll find sample preparation protocols and instrument parameters that will help you start running samples quickly and efficiently.

And as always, our product and application experts are available to help you maximize productivity, troubleshoot methods, and minimize costly instrument downtime.

Access all this information—and more—in each application compendium

Sample preparation example for pesticides and mycotoxins analysis

Cannabis is a unique plant that requires unique sample preparation techniques. We'll show you step by step how to perform our single-stream sample preparation procedure.

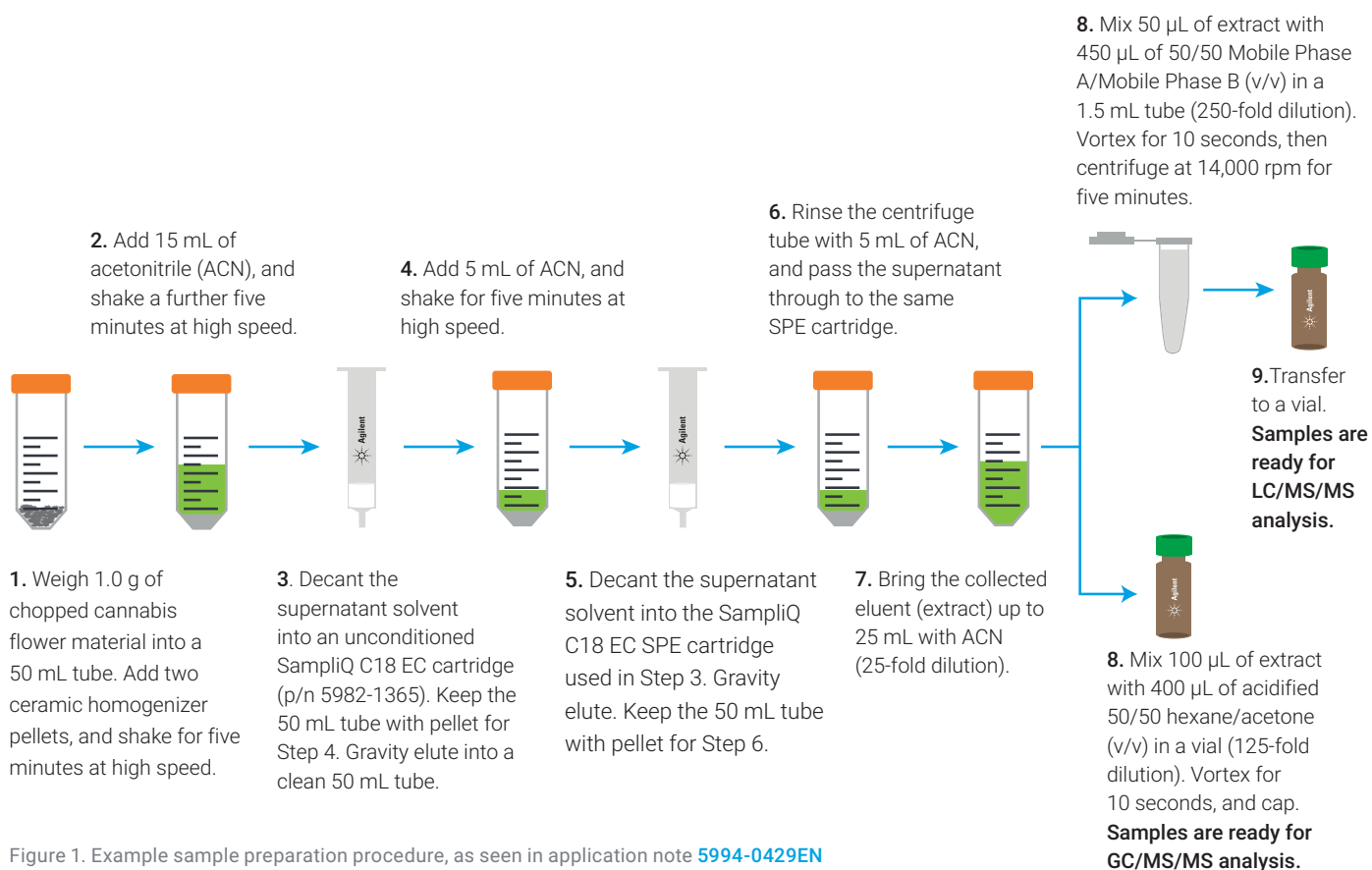


Figure 1. Example sample preparation procedure, as seen in application note [5994-0429EN](#) for Canadian target list.

An example of potency testing method conditions

Take the guesswork out of choosing method parameters such as columns, flow rates, and run times. We've done all the legwork for you.

Parameter	Value	
Column	Agilent InfinityLab Poroshell 120 EC-C18, 3.0 × 50 mm, 2.7 μm	
Mobile phase	A) 0.1 % (V/V) Formic Acid Aqueous Phase B) 0.05 % (V/V) Formic Acid Organic Phase	
Flow rate	1.0 mL/min	
Stop time	9.5 minutes	
Post run	1.5 minutes	
Column temperature	50 °C isothermal	
Injection volume	5.0 μL	
Autosampler temperature	Ambient	
Peak width	>0.0063 minutes (0.13 seconds response time) (80 Hz)	
Variable wavelength detector	230 nm	
Gradient	Time (min)	%B
	0	60
	1.0	60
	7.0	77
	8.2	95

Figure 2. Example of LC/UV method parameters for potency testing, as seen in application note [5991-9285EN](#).

Representative example of a potency chromatogram

See how it's possible to achieve ideal separation of target compounds.

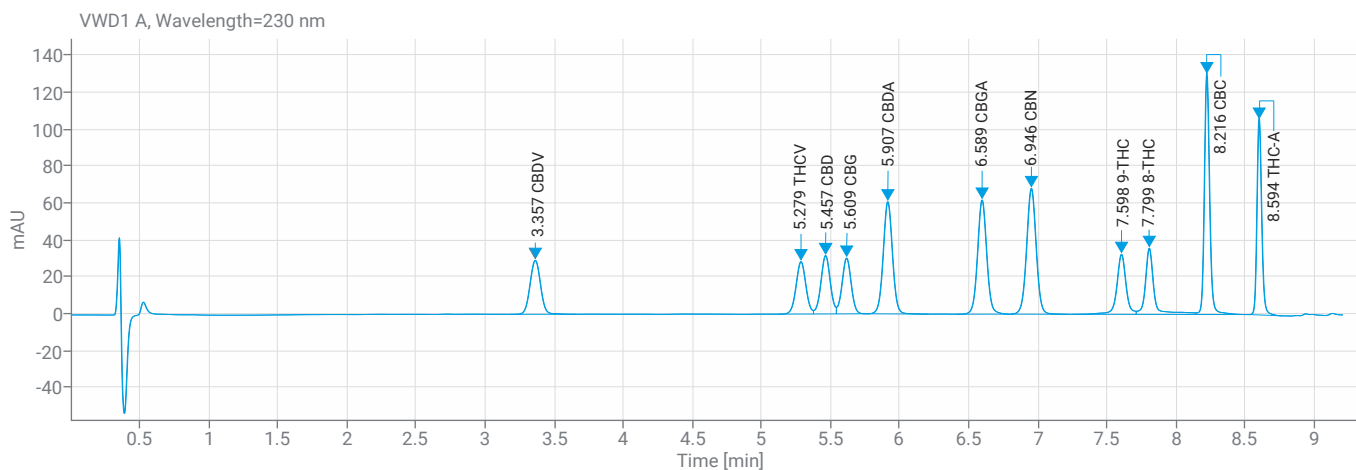


Figure 3. Example potency chromatogram, as seen in application note [5991-9285EN](#).

Do you want to access your digital copy now? Visit www.agilent.com/chem/CannabisKit



Let Agilent Be Your Single Source for Your Cannabis Testing Workflow

Perform comprehensive cannabis testing with Agilent, your complete workflow partner. Together, we can help your lab analyze more samples and meet ever-changing regulatory demands.



Cannabis Consumables Kits

Save time and simplify decision-making. Agilent Cannabis Consumables Kits include all the sample preparation products, columns, and supplies you need to start analyzing samples quickly.



Chemical standards

The success of your analysis depends upon the quality of your reference material. Agilent standards are rigorously tested and manufactured using ISO certifications, so you can calibrate with confidence—and maximize accuracy. Request a custom standard to comply with applicable regulations.



Instrumentation

An Agilent LC or GC instrument is more than just a purchase. It's an investment in your lab. By providing advantages, savings, and efficiencies that impact every lab function, Agilent instruments help you grow your business, maximize profitability, and minimize costs.



Software

Transform raw data into answers and insights. Advanced data mining and processing tools in the Agilent MassHunter software suite help you quickly and accurately extract all available information from your samples.



Services

Agilent CrossLab Application Services partners with you to design optimized outcomes, and address your method and application goals. Agilent CrossLab Application Services provides rapid onsite support and care for your entire laboratory with multivendor instrument service, remote diagnostics, and more.



Technical support

When you choose Agilent, you become part of a group of chemists who benefit from expert advice about troubleshooting, method development, regulatory compliance, and more.

Kit Ordering Information

Agilent Cannabis and Hemp Potency Kit: LC/UV

Part number: 5610-2036

Use this kit for potency testing in cannabis flower and hemp.

Description	Individual Part Number	Quantity
Vial, screw top, amber, write-on spot, deactivated (silanized), certified, 2 mL, 100/pk	5183-2072	4
Cap, screw, green, PTFE/red silicone septa, 100/pk	5182-0718	4
50 mL centrifuge tubes, 25/pk	5610-2049	16
0.45 µm regenerated cellulose (RC) syringe filter, 100/pk	5190-5107	4
Syringe, 5 mL, 100/pk	9301-6476	4
Ceramic homogenizers, for 50 mL tubes, 100/pk	5982-9313	8
Agilent InfinityLab Poroshell 120 EC-C18, 3.0 × 50 mm, 2.7 µm	699975-302	1
Formic acid, 5 mL	G2453-85060	1

Additional recommended products to complete your potency workflow

Description	Individual Part Number
InfinityLab Poroshell 120 EC-C18, 3.0 mm, 2.7 µm, UHPLC guard, 3/pk	823750-911
InfinityLab Ultrapure LC/MS acetonitrile	5191-4496
InfinityLab Ultrapure LC/MS methanol	5191-4497
InfinityLab Ultrapure LC/MS water	5191-4498
Quick Connect assembly, 0.12 x 105 mm, for connection at column inlet on UHPLC systems	5067-5957
Quick Connect assembly, 0.17 x 105 mm, for connection at column inlet on HPLC systems	5067-6166
InfinityLab Quick Turn fitting, for column outlet	5067-5966
Quick Turn capillary, 0.12 x 280 mm, for column outlet	5500-1191
InfinityLab Stay Safe starter kit, including 3 caps GL45 (1 port) and 1 cap GL45 (2 ports), 4 venting valves with time strips and 4 fittings 3.2 mm	5043-1222
InfinityLab solvent filtration assembly; includes glass funnel, 250 mL, membrane holder glass base, glass flask, 1 L, and aluminum clamp	5191-6776*
Regenerated cellulose filter membrane 47 mm, 0.20 µm 100/pk	5191-4340*

*Not required for use with InfinityLab Ultrapure solvents (part numbers 5191-4996 through 5191-4498).

Description	Individual Part Number
Potency Standards	
Cannabinoid Mix A - CBD, CBN, D9-THC	5190-9430
Cannabinoid Mix B - THCA, CBDA, CBG	5190-9429
Cannabinoid Mix C - CBDV, CBGA, CBC	5190-9428
Cannabinoid Mix D - THCV, delta8-THC	5190-9427
Cannabidiol (CBDV)	5191-3920
Tetrahydrocannabinol (delta8-THC)	5191-3921
delta8-Tetrahydrocannabinol (delta8-THC)	5191-3922
Cannabigerol (CBG)	5191-3923
Cannabidiol (CBD)	5191-3924
delta9-Tetrahydrocannabinolic acid (THCA)	5191-3925
Cannabinol (CBN)	5191-3926
Cannabigerol Acid (CBGA)	5191-3927
Cannabichromene (CBC)	5191-3928
delta9-Tetrahydrocannabinol (delta9-THC)	5191-3929
Cannabidiolic Acid (CBDA)	5191-3930

*Only available in the United States, Canada and select countries in South and Central America. Contact your local sales rep for more info.

To view products in these tables on the Agilent online store and add them to MyFavorites list, visit www.agilent.com/chem/CannabisKitOrdering.

Agilent application engineers help you meet your analytical challenges. With customized and pre-packaged (p/n R4502A) application services for cannabis potency testing.

To learn more visit www.agilent.us/chem/method-applications-development

Agilent Cannabis Pesticide and Mycotoxin Kit: LC/MS only

Part number: 5610-2050

Does your U.S. state pesticide list only include analytes for LC/MS testing? If so, then this kit is your best choice.

Description	Individual Part Number	Quantity
Sample Preparation		
C18 endcapped box, 30 x 6 mL tubes, 500 mg SampliQ solid phase extraction (SPE)	5982-1365	14
Ceramic homogenizers for 50 mL tubes, 100/pk	5982-9313	8
Centrifuge tubes and caps, PP, 50 mL, 25/pk	5610-2049	32
Caps and Vials		
Cap, screw, green, PTFE/red silicone septa, 100/pk	5182-0718	4
Vial, screw top, amber, write-on spot, deactivated (silanized), certified, 2 mL, 100/pk	5183-2072	4
LC Supplies		
Formic acid (mobile phase modifier)	G2453-85060	1
Ammonium formate (mobile phase modifier)	G1946-85021	1
LC Separation		
InfinityLab Poroshell 120 Phenyl-Hexyl, 3 x 5 mm, 2.7 µm, UHPLC guard, 3/pk	823750-914	1
InfinityLab Poroshell 120 Phenyl-Hexyl, 3.0 x 100 mm, 2.7 µm, LC column	695975-312	1

Agilent Cannabis Pesticide and Mycotoxin Kit: LC/MS and GC/MS 7890/8890 General

Part number: 5610-2051

This kit is a great option for U.S. labs doing both LC/MS and GC/MS analyses.

Description	Individual Part Number	Quantity
Sample Preparation		
C18 endcapped box, 30 x 6 mL tubes, 500 mg SampliQ solid phase extraction (SPE)	5982-1365	14
Ceramic homogenizers, 50 mL tubes, 100/pk	5982-9313	8
Centrifuge tubes and caps, PP, 50 mL, 25/pk	5610-2049	32
Caps and Vials		
Cap, screw, green, PTFE/red silicone septa, 100/pk	5182-0718	8
Vial, screw top, amber, write-on spot, deactivated (silanized), certified, 2 mL, 100/pk	5183-2072	8
Instrument Supplies		
LC		
Formic acid (mobile phase modifier)	G2453-85060	1
Ammonium formate (mobile phase modifier)	G1946-85021	1
GC		
ALS syringe, blue line, 10 µL, fixed needle, 23/42/cone, PTFE-tip plunger	G4513-80220	1
Inlet septa, advanced green, nonstick, 11 mm, 50/pk	5183-4759	1
Inlet liner, Ultra Inert, splitless, dimpled, 2 mm id, 5/pk	5190-4006	2
Ferrule, 0.4 mm id, 15% graphite/85% Vespel, 0.1 to 0.25 mm column, 10/pk	5181-3323	1
Internal nut, CFT capillary fitting	G2855-20530	2
Ferrule, flexi inert, 0.25 mm column, 10/pk	G3188-27501	1
Column nut, collared, self-tightening, inlet/detector	G3440-81011	1
Column nut, collared, self-tightening, MSD	G3440-81013	1

Part number: 5610-2051 (continued)

Description	Individual Part Number	Quantity
Separation		
LC		
InfinityLab Poroshell 120 Phenyl-Hexyl, 3 x 5 mm, 2.7 µm, UHPLC guard, 3/pk	823750-914	1
InfinityLab Poroshell 120 Phenyl-Hexyl, 3.0 x 100 mm, 2.7 µm, LC column	695975-312	1
GC		
J&W HP-5ms Ultra Inert GC column, 15 m, 0.25 mm, 0.25 µm	19091S-431UI	2

Agilent Cannabis Pesticide and Mycotoxin Kit: LC/MS and GC/MS 7890/8890 Canada

Part number: 5610-2052

This kit is the most popular choice for Canadian labs doing both LC/MS and GC/MS analyses.

Description	Individual Part Number	Quantity
Sample Preparation		
C18 endcapped box, 30 x 6 mL tubes, 500 mg SampliQ solid phase extraction (SPE)	5982-1365	14
Ceramic homogenizers, 50 mL tubes, 100/pk	5982-9313	8
Centrifuge tubes and caps, PP, 50 mL, 25/pk	5610-2049	32
Caps and Vials		
Cap, screw, green, PTFE/red silicone septa, 100/pk	5182-0718	8
Vial, screw top, amber, write-on spot, deactivated (silanized), certified, 2 mL, 100/pk	5183-2072	8
Instrument Supplies		
LC		
Formic acid (mobile phase modifier)	G2453-85060	1
Ammonium formate (mobile phase modifier)	G1946-85021	1
GC		
ALS syringe, blue line, 10 µL, fixed needle, 23/42/cone, PTFE-tip plunger	G4513-80220	1
Inlet septa, advanced green, nonstick, 11 mm, 50/pk	5183-4759	1
Inlet liner, Ultra Inert, splitless, single taper with wool, 4 mm id, 5/pk	5190-3163	2
Ferrule, 0.4 mm id, 15% graphite/85% Vespel, 0.1 to 0.25 mm column, 10/pk	5181-3323	1
Internal nut, CFT capillary fitting	G2855-20530	2
Ferrule, flexi inert, 0.25 mm column, 10/pk	G3188-27501	1
Column nut, collared, self-tightening, inlet/detector	G3440-81011	1
Column nut, collared, self-tightening, MSD	G3440-81013	1
Separation		
LC		
InfinityLab Poroshell 120 Phenyl-Hexyl, 3 x 5 mm, 2.7 µm, UHPLC guard, 3/pk	823750-914	1
InfinityLab Poroshell 120 Phenyl-Hexyl, 3.0 x 100 mm, 2.7 µm, LC column	695975-312	1
GC		
J&W DB-35ms Ultra Inert GC column, 15 m, 0.25 mm, 0.25 µm	122-3812UI	1
J&W HP-5ms Ultra Inert GC column, 15 m, 0.25 mm, 0.25 µm	19091S-431UI	1

Agilent Cannabis Pesticide and Mycotoxin Kit: LC/MS and GC/MS Intuvo 9000

Part number: 5610-2053

In this kit, you'll find LC columns and supplies, as well as columns and supplies for our Intuvo 9000 GC system.

Description	Individual Part Number	Quantity
Sample Preparation		
C18 endcapped box, 30 x 6 mL tubes, 500 mg SampliQ solid phase extraction (SPE)	5982-1365	14
Ceramic homogenizers, 50 mL tubes, 100/pk	5982-9313	8
Centrifuge tubes and caps, PP, 50 mL, 25/pk	5610-2049	32
Caps and Vials		
Cap, screw, green, PTFE/red silicone septa, 100/pk	5182-0718	8
Vial, screw top, amber, write-on spot, deactivated (silanized), certified, 2 mL, 100/pk	5183-2072	8
Instrument Supplies		
LC		
Formic acid (mobile phase modifier)	G2453-85060	1
Ammonium formate (mobile phase modifier)	G1946-85021	1
GC		
ALS syringe, blue line, 10 µL, fixed needle, 23/42/cone, PTFE-tip plunger	G4513-80220	1
Inlet septa, advanced green, nonstick, 11 mm, 50/pk	5183-4759	1
Inlet liner, Ultra Inert, splitless, dimpled, 2 mm id, 5/pk	5190-4006	2
Compression bolt, Intuvo	G4581-60260	2
Intuvo polyimide gasket, 5/pk	5190-9072	1
Guard Chip, Intuvo, multimode inlet, 2/pk	G4587-60665	5
Separation		
LC		
InfinityLab Poroshell 120 Phenyl-Hexyl, 3 x 5 mm, 2.7 µm, UHPLC guard, 3/pk	823750-914	1
InfinityLab Poroshell 120 Phenyl-Hexyl, 3.0 x 100 mm, 2.7 µm, LC column	695975-312	1
GC		
J&W HP-5ms Ultra Inert Intuvo GC column module, 15 m, 0.25 mm, 0.25 µm	19091S-431UI-INT	2

Additional recommended products to complete your pesticide and mycotoxin workflow

Agilent Cannabis Pesticide and Mycotoxin Kits were designed to provide you with consumables for 400 runs. Use this table for guidance on one-time purchase items and recommendations for additional products that support this workflow.

Description	Individual Part Number
Sample Preparation	
SPE cartridge rack, 6 mL, for PPM-48	5191-4104
Waste rack and 3 waste bins, for PPM-48	5191-4112
Caps and Vials	
Vial insert, 250 µL, deactivated glass with polymer feet, 100/pk	5181-8872
LC Analysis	
InfinityLab Ultrapure LC/MS acetonitrile	5191-4496
InfinityLab Ultrapure LC/MS methanol	5191-4497
InfinityLab Ultrapure LC/MS water	5191-4498
Quick Connect assembly, 0.12 x 105 mm, for connection at column inlet on UHPLC systems	5067-5957
Quick Connect assembly, 0.17 x 105 mm, for connection at column inlet on HPLC systems	5067-6166
Quick Turn fitting, for connection between column outlet and detector	5067-5966
Quick Turn capillary, 0.12 x 280 mm, for column outlet	5500-1191
GC Analysis	
Purged Ultimate Union—Inert	G3186-60581
Pesticide Chemical Standards*	
California existing mixes	
California (universal) pesticides standard 1	SCA-200-1
California (universal) pesticides standard 2	SCA-201-1
California (universal) pesticides standard 3	SCA-202-1
California additional compounds needed	
Azoxystrobin	PST-1905A100A01
Captan	PST-090K100A01
Chlordane (mixture of isomers)	PP-150-1
Chlorfenapyr	PST-2120M100A01
Coumaphos	PST-130M100A01
Dimethomorph	PST-2210A100A01
Etoxazol	PST-2265K100A01
Fenhexamid	PST-2295A100A01
Fludioxonil	PST-2340A100A01
Mevinphos (phosdrin)	PST-710M100A01
Pentachloronitrobenzene (Quintozene)	PST-770A100A01
Piperonyl butoxide	PST-820A100A01
Spinetoram J	PST-3730A1000
Spiroxamine	PST-2575A100A01

Description	Individual Part Number
Oregon existing mixes	
Oregon pesticides standard 1	SOR-100-1
Oregon pesticides standard 2	SOR-105-1
Oregon pesticides standard 3	SOR-120-1
Oregon additional compounds needed	
Azoxystrobin	PST-1905A100A01
Chlorfenapyr	PST-2120M100A01
Chlormequat chloride	PST-2870M100A01
Etoxazol	PST-2265K100A01
Fludioxonil	PST-2340A100A01
Naled (Systhane) (Dibrom)	PST-730A1000
Phenothrin	PST-2700M100A01
Trifloxystrobin	PST-2630A100A01
Nevada existing mixes	
Nevada pesticides standard 1	SNV-100-1
Nevada additional compounds needed	
Azoxystrobin	PST-1905A100A01
Chlorfenapyr	PST-2120M100A01
Colorado existing mixes	
Colorado pesticides standard	SCO-100-1

*Our chemical standards recommendations show existing mixes offered by Agilent, and the additional compounds needed, to meet state requirements as of April 1, 2020.

To order additional products not included in the kits, or to pick and choose which parts in the kits you'd like to purchase, visit www.agilent.com/chem/CannabisKitOrdering.

There, you can:

- Use our *MyList* links to find recommendations for sample preparation, containment, calibration, and analysis.
- Build a *MyFavorites* list, and eliminate the hassle of entering individual part numbers when you reorder.

Agilent CrossLab services

CrossLab is an Agilent capability that integrates services and consumables to support workflow success and important outcomes like improved productivity and operational efficiency. Through CrossLab, Agilent strives to provide insight in every interaction to help you achieve your goals. CrossLab offers method optimization, flexible service plans, and training for all skill levels. We have many other products and services to help you manage your instruments and your lab for best performance.

Learn more about Agilent CrossLab, and see examples of insight that leads to great outcomes, at www.agilent.com/crosslab



Learn more about Agilent Cannabis Consumables Kits:

www.agilent.com/chem/CannabisKit

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DE.3899768519

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© Agilent Technologies, Inc. 2020
Published in the USA, October 06, 2020
5994-1607EN

