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## Canadian Cannabis Pesticide Mixes & Kit

### *For Regulations set by the Government of Canada*

Chemical pesticides have become an integral part of the agricultural toolbox, offering protection to crops from destructive pests. However, an unfortunate side effect of their uses is the potential leaching of these, oftentimes, harmful chemicals into the environment leading to their eventual presence in the human food chain. As a result, pesticide residue analysis has become a critical testing process for many different types of laboratories.

For your convenience, we have designed two cannabis pesticide kits which contain the 96 compounds that are required to be tested based on regulations set by Health Canada. This requirement for mandatory testing for the presence of unauthorized pesticides will help ensure that Canadians can continue to have confidence in obtaining safe, quality-controlled medical cannabis from licensed producers. CAN-CAN-KIT-2 was designed with concentrations set at 1,000 times higher than the limits of quantification outlined by Health Canada for each compound. This will help make dilutions straightforward in your laboratory.

Terpenes in a sample of Cannabis helps to identify the strain and has an effect on the medical efficacy. SPEX CertiPrep offers a convenient kit with 42 common terpenes in Cannabis to make strain identification easier for the analyst.

For additional product information, please visit [www.spexcertiprep.com](http://www.spexcertiprep.com).

### Canadian Pesticide Mix 1 in LC/MS Acetonitrile

Components	CAS #	Components	CAS #	Components	CAS #
Aldicarb	116-06-3	Imazalil	35554-44-0	Novaluron	116714-46-6
Baygon (Propoxur)	114-26-1	Imidacloprid	138261-41-3	Oxamyl	23135-22-0
Carbaryl	63-25-2	Iprodione	36734-19-7	Pirimicarb	23103-98-2
Carbofuran	1563-66-2	Methiocarb	2032-65-7	Thiacloprid	111988-49-9
Fenoxycarb	72490-01-8	Methomyl	16752-77-5		
		<b>Concentration</b>	<b>Volume</b>	<b>Part #</b>	
		100 µg/mL	1 mL	CAN-CAN-1	

# Canadian Cannabis Pesticide Mixes & Kit

## Canadian Pesticide Mix 2 in LC/MS Acetonitrile

Components	CAS #	Components	CAS #	Components	CAS #
Allethrin	584-79-2	Methoprene	40596-69-8	Pyrethrins (mix of isomers)	8003-34-7
Baythroid (Cyfluthrin)	68359-37-5	MGK 264™	113-48-4	Resmethrin	10453-86-8
Bifenthrin	82657-04-3	Permethrin (mix of cis & trans)	52645-53-1	Sanmarton	51630-58-1
Cypermethrin	52315-07-8	d-Phenothrin (mix of cis & trans)	26002-80-2	Tetramethrin	7696-12-0
Deltamethrin	52918-63-5	Piperonyl Butoxide	51-03-6		
Kinoprene	42588-37-4	Prallethrin (mix of isomers)	23031-36-9		
		<b>Concentration</b>	<b>Volume</b>	<b>Part #</b>	
		100 µg/mL	1 mL	CAN-CAN-2	

## Canadian Pesticide Mix 3 in LC/MS Acetonitrile

Components	CAS #	Components	CAS #	Components	CAS #
Azadirachtin	11141-17-6	Endosulfan II	33213-65-9	Pentachloronitrobenzene	82-68-8
Benzovindiflupyr	1072957-71-1	Endosulfan sulfate	1031-07-8	Trifloxystrobin	141517-21-7
Endosulfan I	959-98-8	Fipronil	120068-37-3		
		<b>Concentration</b>	<b>Volume</b>	<b>Part #</b>	
		100 µg/mL	1 mL	CAN-CAN-3	

## Canadian Pesticide Mix 4 in LC/MS Acetonitrile

Components	CAS #	Components	CAS #	Components	CAS #
Acephate	30560-19-1	Etoxazole	153233-91-1	Prophos	13194-48-4
Chlorpyrifos	2921-88-2	Fensulfathion	115-90-2	Spiroxamine	118134-30-8
Coumaphos	56-72-4	Fenthion	55-38-9	Terrazole	2593-15-9
Diazinon	333-41-5	Imidan (Phosmet)	732-11-6	Tetrachlorvinphos (Z)	22248-79-9
Dichlorvos	62-73-7	Malathion	121-75-5	Thiophanate-methyl	23564-05-8
Dimethoate	60-51-5	Methyl parathion	298-00-0		
Etofenprox	80844-07-1	Mevinphos	7786-34-7		
		<b>Concentration</b>	<b>Volume</b>	<b>Part #</b>	
		100 µg/mL	1 mL	CAN-CAN-4	

## Canadian Pesticide Mix 5 in LC/MS Acetonitrile

Components	CAS #	Components	CAS #	Components	CAS #
Acequinocyl	57960-19-7	Clothianidin	210880-92-5	Hexythiazox	78587-05-0
Acetamiprid	135410-20-7	Cyantraniliprole	736994-63-1	Paclobutrazol	76738-62-0
Azoxystrobin	131860-33-8	Cyprodinil	121552-61-2	Propiconazole (Tilt)	60207-90-1
Bifenazate	149877-41-8	Dinotefuran	165252-70-0	Pyraclostrobin	175013-18-0
Boscalid	188425-85-6	(E)-Fenpyroximate	134098-61-6	Systhane (Myclobutanil)	88671-89-0
Buprofezin	69327-76-0	Flonicamid	158062-67-0	Tebufenozide	112410-23-8
Chlorantraniliprole	500008-45-7	Fludioxonil	131341-86-1	Teflubenzuron	83121-18-0
Chlorfenapyr	122453-73-0	Fluopyram	658066-35-4	Thiamethoxam	153719-23-4
Clofentezine	74115-24-5	Folicur	107534-96-3		
		<b>Concentration</b>	<b>Volume</b>	<b>Part #</b>	
		100 µg/mL	1 mL	CAN-CAN-5	

# Canadian Cannabis Pesticide Mixes & Kit

## Canadian Pesticide Mix 6 in LC/MS Acetonitrile:LC/MS Methanol (50:50)

Components	CAS #	Components	CAS #	Components	CAS #
Abamectin	71751-41-2	Metalaxyl	57837-19-1	Spirodiclofen	148477-71-8
Daminozide	1596-84-5	Pyridaben	96489-71-3	Spiromesifen	283594-90-1
Dodemorph	1593-77-7	Spinetoram	187166-40-1	Spirotetramat	203313-25-1
Kresoxim-methyl	143390-89-0	Spinosad	168316-95-8		
		<b>Concentration</b>	<b>Volume</b>	<b>Part #</b>	
		100 µg/mL	1 mL	CAN-CAN-6	

## Canadian Pesticide Mix 1A in LC/MS Acetonitrile

Components	Concentration	CAS #	Components	Concentration	CAS #
Aldicarb	1,000 µg/mL	116-06-3	Iprodione	1,000 µg/mL	34734-19-7
Baygon (Propoxur)	20 µg/mL	114-26-1	Methiocarb	20 µg/mL	2032-65-7
Carbaryl	50 µg/mL	63-25-2	Methomyl	50 µg/mL	16752-77-5
Carbofuran	20 µg/mL	1563-66-2	Novaluron	50 µg/mL	116714-46-6
Fenoxycarb	20 µg/mL	72490-01-8	Oxamyl	3,000 µg/mL	23135-22-0
Imazalil	50 µg/mL	35554-44-0	Pirimicarb	20 µg/mL	23103-98-1
Imidacloprid	20 µg/mL	138261-41-3	Thiacloprid	20 µg/mL	111988-49-9
		<b>Volume</b>	<b>Part #</b>		
		1 mL	CAN-CAN-1A		

## Canadian Pesticide Mix 2A in LC/MS Acetonitrile

Components	Concentration	CAS #	Components	Concentration	CAS #
Allethrin	200 µg/mL	584-79-2	Permethrin	500 µg/mL	52645-53-1
Baythroid (Cyfluthrin)	200 µg/mL	68359-37-5	Phenothrin (cis & trans)	50 µg/mL	26002-80-2
Bifenthrin	1,000 µg/mL	82657-04-3	Piperonyl butoxide	200 µg/mL	51-03-6
Cypermethrin	300 µg/mL	52315-07-8	Prallethrin	50 µg/mL	51-03-6
Deltamethrin	500 µg/mL	52918-63-5	Pyrethrins (mix of isomers)	50 µg/mL	8003-34-7
Kinoprene	500 µg/mL	42588-37-4	Resmethrin	100 µg/mL	10453-86-8
Methoprene	2,000 µg/mL	40596-69-8	Sanmarton	100 µg/mL	51630-58-1
MGK 264™	50 µg/mL	113-48-4	Tetramethrin	100 µg/mL	7696-12-0
		<b>Volume</b>	<b>Part #</b>		
		1 mL	CAN-CAN-2A		

## Canadian Pesticide Mix 4A in LC/MS Acetonitrile

Components	Concentration	CAS #	Components	Concentration	CAS #
Acephate	20 µg/mL	30560-19-1	Imidan (Phosmet)	20 µg/mL	732-11-6
Chlorpyrifos	40 µg/mL	2921-88-2	Malathion	20 µg/mL	121-75-5
Coumaphos	20 µg/mL	56-72-4	Methyl parathion	50 µg/mL	298-00-0
Diazinon	20 µg/mL	333-41-5	Mevinphos	50 µg/mL	7786-34-7
Dichlorvos	100 µg/mL	62-73-7	Prophos	20 µg/mL	13194-48-4
Dimethoate	20 µg/mL	60-51-5	Spiroxamine	100 µg/mL	118134-30-8
Etofenprox	50 µg/mL	80844-07-1	Terrazole	30 µg/mL	2593-15-9
Etoxazole	20 µg/mL	153233-91-1	Tetrachlorvinphos (Z)	20 µg/mL	22248-79-9
Fensulfothion	20 µg/mL	115-90-2	Thiophanate-methyl	50 µg/mL	23564-05-8
Fenthion	20 µg/mL	55-38-9			
		<b>Volume</b>	<b>Part #</b>		
		1 mL	CAN-CAN-4A		

# Canadian Cannabis Pesticide Mixes & Kit

## Canadian Pesticide Mix 5A in LC/MS Acetonitrile

Components	Concentration	CAS #	Components	Concentration	CAS #
Acetamiprid	100 µg/mL	135410-02-7	(E)-Fenpyroximate	20 µg/mL	134098-61-6
Acequinocyl	30 µg/mL	57960-19-7	Flonicamid	50 µg/mL	158062-67-0
Azoxystrobin	20 µg/mL	131860-33-8	Fludioxonil	20 µg/mL	131341-86-1
Bifenazate	20 µg/mL	149877-41-8	Fluopyram	20 µg/mL	658066-35-4
Boscalid	20 µg/mL	188425-85-6	Folicur	50 µg/mL	107534-96-3
Buprofezin	20 µg/mL	69327-76-0	Hexythiazox	10 µg/mL	78587-05-0
Chlorantraniliprole	20 µg/mL	500008-45-7	Paclobutrazol	20 µg/mL	76738-62-0
Chlorfenapyr	50 µg/mL	122453-73-0	Propiconazole (Tilt)	100 µg/mL	60207-90-1
Clofentezine	20 µg/mL	74115-24-5	Pyraclostrobin	20 µg/mL	175013-18-0
Clothianidin	50 µg/mL	210880-92-5	Systhane (Myclobutanil)	20 µg/mL	88671-89-0
Cyantraniliprole	20 µg/mL	736994-63-1	Tebufenozide	20 µg/mL	112410-23-8
Cyprodinil	250 µg/mL	121552-61-2	Teflubenzuron	50 µg/mL	83121-18-0
Dinotefuran	100 µg/mL	165252-70-0	Thiamethoxam	20 µg/mL	153719-23-4
		<b>Volume</b>			<b>Part #</b>
		1 mL			CAN-CAN-5A

## Canadian Pesticide Mix 6A in LC/MS Acetonitrile

Components	Concentration	CAS #	Components	Concentration	CAS #
Abamectin	100 µg/mL	71751-41-2	Spinetoram	20 µg/mL	187166-40-1
Daminozide	100 µg/mL	1596-84-5	Spinosad	100 µg/mL	168316-95-8
Dodemorph	50 µg/mL	1593-77-7	Spirodiclofen	250 µg/mL	148477-71-8
Kresoxim-methyl	20 µg/mL	143390-89-0	Spiromesifen	3,000 µg/mL	283594-90-1
Metalaxyl	20 µg/mL	57837-19-1	Spirotetramat	20 µg/mL	203313-25-1
Pyridaben	50 µg/mL	96489-71-3			
		<b>Volume</b>			<b>Part #</b>
		1 mL			CAN-CAN-6A

## Canadian Pesticide Mix 7 in LC/MS Acetonitrile\*

Components	Concentration	CAS #	Components	Concentration	CAS #
Azadirachtin	1,000 µg/mL	11141-17-6	Endosulfan sulfate	50 µg/mL	1031-07-8
Benzovindiflupyr	20 µg/mL	1072957-71-1	Fipronil	60 µg/mL	120068-37-3
Dimethomorph	50 µg/mL	110488-70-5	Pentachloronitrobenzene	20 µg/mL	82-68-8
Endosulfan I	200 µg/mL	959-98-8	Trifloxystrobin	20 µg/mL	141517-21-7
Endosulfan II	50 µg/mL	33213-65-9			
		<b>Volume</b>			<b>Part #</b>
		1 mL			CAN-CAN-7

\* Similar to CAN-CAN-3 but now Dimethomorph is included

## Canadian Pesticide Naled Standard in LC/MS Acetonitrile

Components	CAS #		
Dibrom (Naled)	300-76-5		
	<b>Concentration</b>	<b>Volume</b>	<b>Part #</b>
	1,000 µg/mL	1 mL	LCS-2650

# Canadian Cannabis Pesticide Mixes & Kit

## Canadian Pesticide Naled Standard in LC/MS Acetonitrile

Components		CAS #
Dibrom (Naled)		300-76-5
Concentration	Volume	Part #
100 µg/mL	1 mL	LCS-2650-100

## Dimethomorph

Components		CAS #
Dimethomorph		110488-70-5
Concentration	Volume	Part #
1,000 µg/mL	1 mL	LCS-3970-ACN

## Canadian Pesticide Kit

Kit contains 1 mL of each\*\*

CAN-CAN-1	CAN-CAN-5	
CAN-CAN-2	CAN-CAN-6	
CAN-CAN-3	LCS-2650*	
CAN-CAN-4		
Concentration	Volume	Part #
100 µg/mL	7 x 1 mL	CAN-CAN-KIT

\* LCS-2650 is at a concentration of 1,000 µg/mL

\*\* Dimethomorph, LCS-3970-ACN is not included. Please purchase separately.

## Canadian Pesticide Kit 2

Kit contains 1 mL of each

CAN-CAN-1A	CAN-CAN-6A	
CAN-CAN-2A	CAN-CAN-7	
CAN-CAN-4A	LCS-2650-100	
CAN-CAN-5A		
Concentration	Volume	Part #
Multiple (see above sets)	7 x 1 mL	CAN-CAN-KIT-2

## Canadian Residual Solvent Mix 1 in Methanol-P&T

Components	CAS #	Components	CAS #
Acetic Acid	64-19-7	Methyl acetate	79-20-9
Acetone	67-64-1	Methyl sulfoxide	67-68-5
Anisole	100-66-3	3-Methyl-1-butanol	123-51-3
1-Butanol	71-36-3	2-Methyl-1-propanol	78-83-1
2-Butanol	78-92-2	n-Heptane	142-82-5
2-Butanone	78-93-3	n-Pentane	109-66-0
Butyl acetate	123-86-4	1-Pentanol	71-41-0
Ethanol	64-17-5	1-Propanol	71-23-8
Ether	60-29-7	2-Propanol (Isopropanol, Isopropyl alcohol)	67-63-0
Ethyl acetate	141-78-6	Propyl acetate	109-60-4
Ethyl formate	109-94-4	tert-Butyl methyl ether	1634-04-4
Isobutyl acetate	110-19-0	Triethylamine	121-44-8
Isopropyl acetate	108-21-4		
Concentration	Volume	Part #	
1,000 µg/mL	100 mL	CAN-CAN-RS-1	

CAN-TERP Mix 1 in Methanol					
Components	CAS #	Components	CAS #	Components	CAS #
(-)-alpha-Bisabolol	23089-26-1	Eucalyptol	470-82-6	Linalool	78-70-6
Camphene	79-92-5	Farnesene (mix of isomers)	502-61-4	p-Mentha-1,5-diene	99-83-2
Camphor	76-22-2	(+)-Fenchone	4695-62-9	beta-Myrcene	123-35-3
(1S)-(+)-3-Carene	498-15-7	Geranyl acetate	105-87-3	Nerol	106-25-2
trans-Caryophyllene	87-44-5	Hexahydrothymol	89-78-1	cis-Nerolidol	3790-78-1
(-)-Caryophyllene oxide	1139-30-6	Isoborneol	124-76-5	Ocimene (mix of isomers)	13877-91-3
(+)-Cedrol	77-53-2	(-)-Isopulegol	89-79-2	Valencene	4630-07-3
Concentration	Volume	Part #	Concentration	Volume	Part #
100 µg/mL	1 mL	CAN-TERP-MIX1	1,000 µg/mL	1 mL	CAN-TERP-MIX1H

CAN-TERP Mix 2 in Methanol					
Components	CAS #	Components	CAS #	Components	CAS #
(+)-Borneol	464-43-7	Geraniol	106-24-1	(+)-Pulegone	89-82-7
(-)-Borneol	464-45-9	Guaiol	489-86-1	Sabinene	3387-41-5
(1R)-(+)-Camphor	464-49-3	alpha-Humulene	6753-98-6	Sabinene hydrate	546-79-2
(1S)-(-)-Camphor	464-48-2	(R)-(+)-Limonene	5989-27-5	alpha-Terpinene	99-86-5
alpha-Cedrene	469-61-4	trans-Nerolidol	40716-66-3	gamma-Terpinene	99-85-4
(1R)-Endo-(+)-fenchyl alcohol	2217-02-9	alpha-Pinene	80-56-8	Terpineol (mix of isomers)	8000-41-7
L-(-)-Fenchone	7787-20-4	beta-Pinene	127-91-3	Terpinolene	586-62-9
Concentration	Volume	Part #	Concentration	Volume	Part #
100 µg/mL	1 mL	CAN-TERP-MIX2	1,000 µg/mL	1 mL	CAN-TERP-MIX2H

CAN-TERP Kit		
Kit Contains		
CAN-TERP-MIX1	CAN-TERP-MIX2	
Concentration	Volume	Part #
100 µg/mL	2 x 1 mL	CAN-TERP-KIT

CAN-TERP Kit, High Level		
Kit Contains		
CAN-TERP-MIX1H	CAN-TERP-MIX2H	
Concentration	Volume	Part #
1,000 µg/mL	2 x 1 mL	CAN-TERP-KIT-H

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