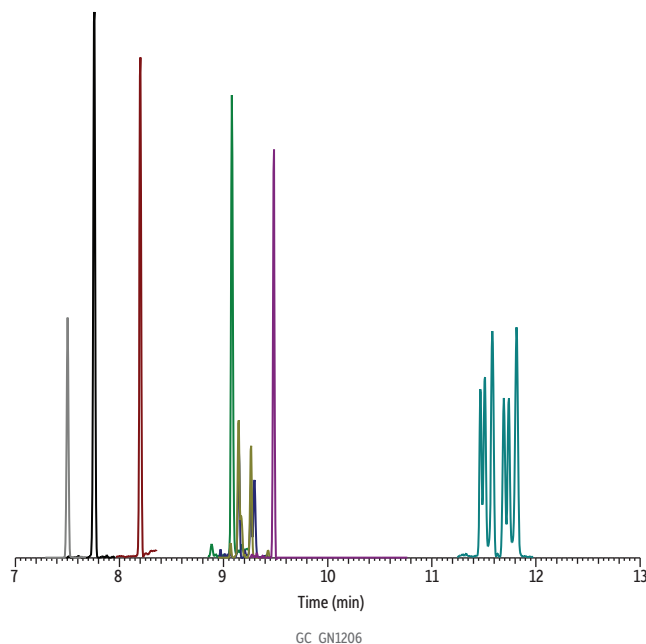


GC Amenable Pesticides Regulated by California in Brownies on Rxi-5ms

- GC amenable pesticides regulated by California (2019).
- Quantify pesticides in cannabis edibles at low ng/g concentrations.



Peaks	tr (min)	Polarity	Precursor Ion	Product Ion	Transition Type
1. Atrazine-D5	7.5	Positive	220.0	58.0	Quantifier
2. Atrazine-D5	7.5	Positive	205.0	127.0	Qualifier
3. Quintozene	7.8	Positive	294.9	236.9	Quantifier
4. Quintozene	7.8	Positive	236.8	118.9	Qualifier
5. Methyl parathion	8.2	Positive	263.0	109.0	Quantifier
6. Methyl parathion	8.2	Positive	263.0	79.0	Qualifier
7. Captan	9.1	Positive	184.0	149.1	Quantifier
8. Captan	9.1	Positive	184.0	134.1	Qualifier
9. <i>trans</i> -Chlordane	9.1	Positive	271.9	237.0	Quantifier
10. <i>trans</i> -Chlordane	9.1	Positive	372.9	265.9	Qualifier
11. <i>cis</i> -Chlordane	9.3	Positive	372.9	265.9	Quantifier
12. <i>cis</i> -Chlordane	9.3	Positive	271.9	237.0	Qualifier
13. Chlorfenapyr	9.5	Positive	247.1	227.1	Quantifier
14. Chlorfenapyr	9.5	Positive	59.1	31.1	Qualifier
15. Cyfluthrin	11.5	Positive	163.0	127.1	Quantifier
16. Cyfluthrin	11.5	Positive	199.1	170.1	Qualifier
17. Cypermethrin	11.7	Positive	163.0	127.1	Quantifier
18. Cypermethrin	11.7	Positive	181.1	152.1	Qualifier

Column	Rxi-5ms, 30 m, 0.25 mm ID, 0.25 μ m (cat.# 13423)
Standard/Sample	California pesticide standard #1 (cat.# 34124) California pesticide standard #2 (cat.# 34125) California pesticide standard #3 (cat.# 34126) California pesticide standard #4 (cat.# 34127) California pesticide standard #5 (cat.# 34128) California pesticide standard #6 (cat.# 34129) Atrazine-d5 (cat.# 31984)
Diluent:	Acetonitrile
Conc.:	5-7.5 ng/mL Expected concentration range in extract after extracting from brownie fortified at 100 ng/g (final extract was diluted in half with acetonitrile).
Injection	
Inj. Vol.:	1 μ L splitless
Liner:	Topaz 4.0 mm ID single taper inlet liner w/wool (cat.# 23447)
Inj. Temp.:	250 $^{\circ}$ C
Purge Flow:	5 mL/min
Oven	
Oven Temp.:	90 $^{\circ}$ C (hold 1 min) to 310 $^{\circ}$ C at 25 $^{\circ}$ C/min (hold 10 min)
Carrier Gas	He, constant flow
Flow Rate:	1.4 mL/min
Detector	MS/MS
Transfer Line Temp.:	290 $^{\circ}$ C
Analyzer Type:	Quadrupole
Source Temp.:	330 $^{\circ}$ C
Electron Energy:	70 eV
Tune Type:	PFTBA
Ionization Mode:	EI
Instrument	Thermo Scientific TSQ 8000 Triple Quadrupole GC-MS
Sample Preparation	Brownies were pulverized using a SPEX Freezer/Mill grinder and 0.5 g samples were fortified with pesticides and mycotoxins at 100 ng/g. A mix of internal standards was added at 200 ng/g. 1.5 mL of acetonitrile acidified with 1% acetic acid was added to the sample. The sample was vortexed and sonicated for 5 min, then the supernatant was passed through a 100 mg Resprep SPE C18 cartridge (cat.# 26030). An additional 1.5 mL of extraction solvent (acidified acetonitrile) was added to the sample pellet, and the sample was vortexed again. The supernatant was passed through the same C18 cartridge. After reserving 750 μ L for LC-MS analysis, the remaining supernatant was transferred to a Q-sep QuEChERS dSPE tube containing pre-weighed magnesium sulfate and PSA (cat.# 26215). After vortexing and centrifuging, 500 μ L of extract was mixed with 500 μ L of acidified acetonitrile. 1 μ L of final extract was injected into the GC-MS/MS system.