

### 0041 - Peppermint by GC

Botanical Name: *Mentha piperita*

Common Names: Peppermint

#### Plant Description:

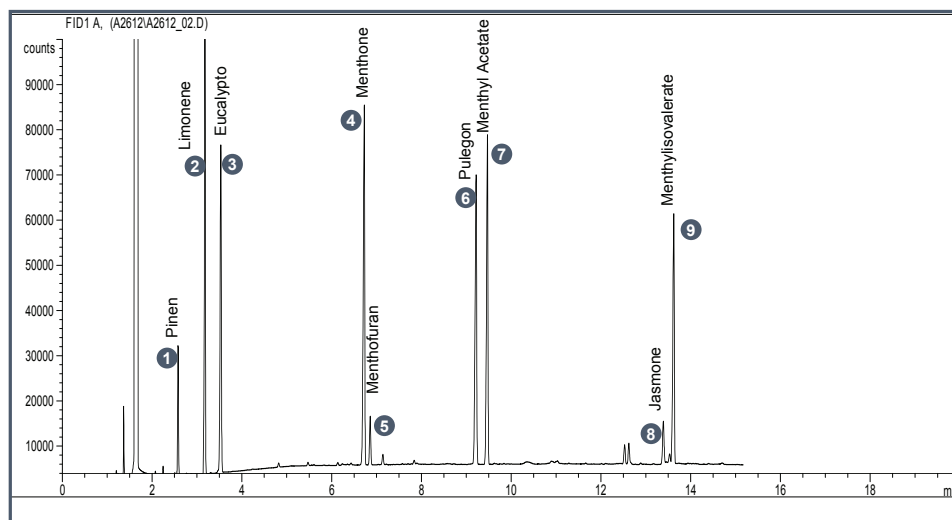
Peppermint is a perennial herb widely cultivated worldwide. It is a hybrid mint cross between watermint and spearmint. It grows 12-35 inches tall with smooth stems, square in cross section. Leaves are dark green with reddish veins, an acute apex and coarsely toothed edges at 1.6-3.5 inches long and 0.6-1.6 inches wide. Flowers are purple and flowering is from mid to late summer.



#### Therapeutic Use Overview:

Peppermint has a long tradition of medicinal use specifically in teas for treatment of indigestion and other stomach ailments. In pharmacy its primary use is for its taste and aroma qualities. Large quantities of peppermint and peppermint oil are used in making chocolates, gum and other confection. Oils containing peppermint can also be used as rubs and to treat headaches.

#### Representative HPLC Analysis: Mixed Standard Solution



#### Instrument Parameters

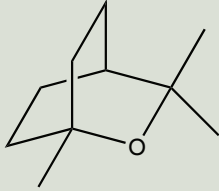
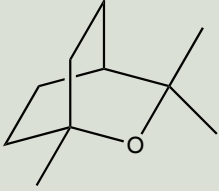
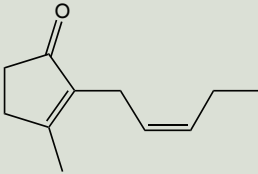
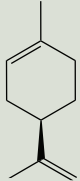
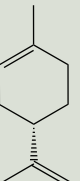
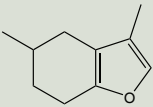
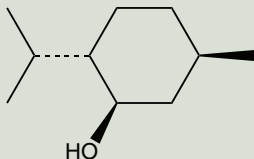
**Column:** Column ZB-50 Column, 30.0 m x 0.25 mm x 0.25 µm  
**Detection:** FID  
**Flow Rate:** 2.1 mL/min  
**Carrier:** Gas Helium  
**Initial Temp:** 90°C  
**Inlet Temp:** 250°C  
**Detector Temp:** 300°C  
**Injection Volume:** 1.0 µL

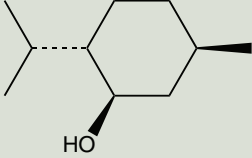
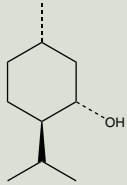
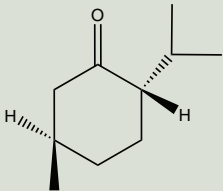
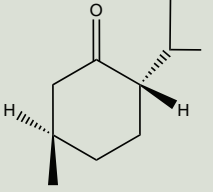
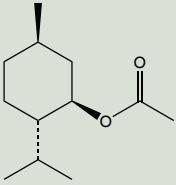
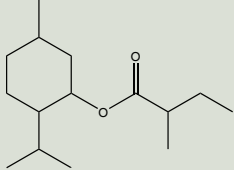
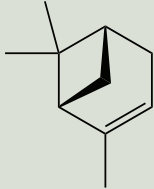
Ramp	Temp (°C)	Rate (°C/min)
0	90	N/A
3.5	6.0	280
36	6.0	280

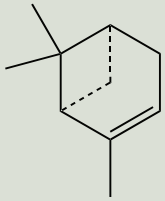

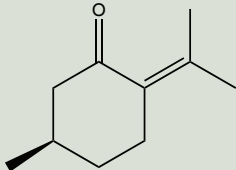
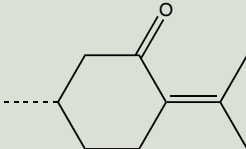
#### Analytes:

- ① Pinene, ② Limonene, ③ Eucalypto, ④ Menthone, ⑤ Menthofuran, ⑥ Pulegone, ⑦ Menthyl Acetate, ⑧ Jasmine, ⑨ Menthylisovalerate

## Phytochemical Reference Standards

Product Description And Details	Product ID	Qty
 <p>EUCALYPTOL(1,8-CINEOLE) Grade: P CAS#:[ 470-82-6] Chemical Formula: C<sub>10</sub>H<sub>18</sub>O FW: 154.25</p>	ASB-00005374-250	250mg
 <p>EUCALYPTOL(1,8-CINEOLE) Grade: SG CAS#:[ 470-82-6] Chemical Formula: C<sub>10</sub>H<sub>18</sub>O FW: 154.25</p>	ASB-00005375-001 ASB-00005375-100	1g 100mg
 <p>JASMONE, cis- Grade: SG CAS#:[ 488-10-8] Chemical Formula: C<sub>11</sub>H<sub>16</sub>O FW: 164.25</p>	ASB-00010110-001 ASB-00010110-100	1g 100mg
 <p>LIMONENE, R-(+) Grade: SG CAS#:[ 5989-27-5] Chemical Formula: C<sub>10</sub>H<sub>16</sub> FW: 136.24</p>	ASB-00012200-001 ASB-00012200-100 ASB-00012200-250	1g 100mg 250mg
 <p>LIMONENE, S-(-) Grade: SG CAS#:[ 5989-54-8] Chemical Formula: C<sub>10</sub>H<sub>16</sub> FW: 136.24</p>	ASB-00012201-001 ASB-00012201-100	1g 100mg
 <p>MENTHOFURAN Grade: SG CAS#:[ 494-90-6] Chemical Formula: C<sub>10</sub>H<sub>14</sub>O FW: 150.22</p>	ASB-00013965-001 ASB-00013965-100	1g 100mg
 <p>MENTHOL, (-) Grade: P CAS#:[2216-51-5] Chemical Formula: C<sub>10</sub>H<sub>20</sub>O FW: 156.27</p>	ASB-0013962-100	100mg

Product Description And Details	Product ID	Qty
 <p>                     MENTHOL, (-)                      Grade: SG                      CAS#:[2216-51-5]                      Chemical Formula: C<sub>10</sub>H<sub>20</sub>O                      FW: 156.27                 </p>	ASB-00013966-001 ASB-00013966-100	1g 100mg
 <p>                     MENTHOL, (+)                      Grade: SG                      CAS#:[15356-60-2]                      Chemical Formula: C<sub>10</sub>H<sub>20</sub>O                      FW: 156.27                 </p>	ASB-00013967-001 ASB-00013967-100	1g 100mg
 <p>                     MENTHONE                      Grade: SG                      CAS#:[ 10458-14-7]                      Chemical Formula: C<sub>10</sub>H<sub>18</sub>O                      FW: 154.25                 </p>	ASB-00013961-001	1g
 <p>                     MENTHONE, (-)                      Grade: SG                      CAS#:[14073-97-3]                      Chemical Formula: C<sub>10</sub>H<sub>18</sub>O                      FW: 154.25                 </p>	ASB-00013969-001 ASB-00013969-100	1g 100mg
 <p>                     MENTHYL ACETATE, (-)                      Grade: SG                      CAS#:[2623-23-6]                      Chemical Formula: C<sub>12</sub>H<sub>22</sub>O<sub>2</sub>                      FW: 198.30                 </p>	ASB-00013970-001 ASB-00013970-100	1g 100mg
 <p>                     MENTHYL ISOVALERATE                      Grade: SG                      CAS#:[16409-46-4]                      Chemical Formula: C<sub>15</sub>H<sub>28</sub>O<sub>2</sub>                      FW: 240.38                 </p>	ASB-00013975-001 ASB-00013975-100	1g 100mg
 <p>                     PINENE, (1R)-(+)-alpha                      Grade: SG                      CAS#:[ 7785-70-8]                      Chemical Formula: C<sub>10</sub>H<sub>16</sub>                      FW: 136.23                 </p>	ASB-00016834-100	100mg

Product Description And Details	Product ID	Qty
 <p>PINENE, (1S)-(-)-alpha Grade: SG CAS#:[ 7785-26-4] Chemical Formula: C<sub>10</sub>H<sub>16</sub> FW: 136.23</p>	<p>ASB-00016835-001 ASB-00016835-100</p>	<p>1g 100mg</p>
 <p>PINENE, DL-alpha- Grade: SG CAS#:[ 80-56-8] Chemical Formula: C<sub>10</sub>H<sub>16</sub> FW: 136.23</p>	<p>ASB-00016836-001 ASB-00016836-100</p>	<p>1g 100mg</p>
 <p>PULEGONE, R-(+) Grade: SG CAS#:[ 89-82-7] Chemical Formula: C<sub>10</sub>H<sub>16</sub>O FW: 152.23</p>	<p>ASB-00016405-001 ASB-00016405-100</p>	<p>1mg 100mg</p>
 <p>PULEGONE, S-(-) Grade: SG CAS#:[ 3391-90-0] Chemical Formula: C<sub>10</sub>H<sub>16</sub>O FW: 152.23</p>	<p>ASB-00016406-001 ASB-00016406-100</p>	<p>1mg 100mg</p>