Microwave Digestion of Plant Tissue

**Method Note**

Ramp times and power may vary depending on the type and number of vessels.

**Method Type**

One Touch

**Control Type**

Ramp to Temperature

**Sample Type**

Organic

**Max Sample Weight**

0.5 g

**Recommended Equipment**

MARS 6
MARS 6 iWave

**Recommended Vessels**

EasyPrep
EasyPrep Plus
MARSXpress
MARSXpress Plus

**Reagents**

HNO₃

**Heating Program**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Temp (°C)</th>
<th>*Ramp (mm:ss)</th>
<th>Hold (mm:ss)</th>
<th>Pressure (psi)</th>
<th>* Power (W)</th>
<th>Stirring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>200</td>
<td>15:00</td>
<td>15:00</td>
<td>800</td>
<td>900-1050</td>
<td>off</td>
</tr>
</tbody>
</table>

*Ramp times and power may vary depending on the type and number of vessels.

**Results**

Sample was clear, colorless, and particle free upon dilution to 50 mL.

**General Precaution**

a) This procedure is a reference point for sample digestion using a CEM system and may need to be modified or changed to obtain the required results on your sample.
b) If using a vessel other than the recommended choice, adjust sample size and pressure limit to values appropriate for the vessel chosen.
c) The control / reference vessel must contain the largest and most reactive sample.
d) Manual venting of CEM vessels should be performed when wearing hand/eye/body protection and when the vessel contents are at or below room temperature to avoid the potential for chemical burns. Always point the vent hole away from the operator.
e) If programming as One Touch, the ramp time and power will be automatically determined based on the number and type of vessels detected.