

Mars 6TM Method Note

Microwave Digestion of Phosphate Rock

Procedure

Add 0.5 g of the sample into the digestion vessel. Add 5 mL of HNO₃ and 5 mL of HBF₄. Gently swirl the mixture and wait approximately 15 minutes before closing the vessel.

Notes

| Recommended Equipment | Recommended Vessels | Reagents | |
|------------------------|---------------------|--------------------------------------|--|
| MARS 6 MARS 6 iWave | EasyPrep Plus | HNO ₃ HBF ₄ | |

| Max Sample Weight | Sample Type | Control Type | Method Type |
|-------------------|-------------|---------------------|-------------|
| 0.5 g | Organic | Ramp to Temperature | One Touch |

| Heating Progra | am | | | | | |
|----------------|-----------|---------------|--------------|----------------|-------------|----------|
| Stage | Temp (°C) | *Ramp (mm:ss) | Hold (mm:ss) | Pressure (psi) | * Power (W) | Stirring |
| 1 | 180 | 15:00 | 15:00 | 800 | 900-1050 | Off |

^{*} 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.