MARS 6™
Method Note

Microwave Digestion of Metal Alloy (Ag, Au, Cu)

Procedure

Weigh 0.1 g of the sample into the digestion vessel. Add 9 mL HCl, 1 mL HNO_3. Gently swirl the mixture and wait approximately 15 minutes to pre-digest before closing the vessel.

Notes

This application can only be run in the iPrep vessel.

This method may not provide a total digest of all samples. Hydrofluoric acid may be required to provide complete digestion of some sample matrices.

Recommended Equipment	Recommended Vessels	Reagents
MARS 6 iWave	iPrep	HCl HNO_3

Max Sample Weight	Sample Type	Control Type	Method Type
0.1 g	HCl	Ramp to Temperature	Classic

Heating Program

Stage	Temp (°C)	*Ramp (mm:ss)	Hold (mm:ss)	Pressure (psi)	* Power (W)	Stirring
1	220	25:00	25:00	N/A	900-1800	Off

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

Results

Sample was yellow in color, with some white particles remaining 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) 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.
d) If programming as One Touch, the ramp time and power will be automatically determined based on the number and type of vessels detected.