Method Note

**Microwave Digestion of
Sulfide Bulk Concentrate in iPrep**

Procedure

Weigh 0.25 g of the sample into the digestion vessel. Add 10 mL of HNO_3. Gently swirl the mixture before closing the vessel.

Notes

This application can only be run in the iPrep vessel.

Recommended Equipment	**Recommended Vessels**	**Reagents**
MARS 6 iWave	iPrep	HNO_3

Max Sample Weight	**Sample Type**	**Control Type**	**Method Type**
0.25 g	Organic	Ramp to Temperature	One Touch

Heating Program

Stage	Temp (°C)	*Ramp (mm:ss)	Hold (mm:ss)	Pressure (psi)	* Power (W)	Stirring
1	210	25:00	20:00	N/A	900-1050	Off

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

Procedure

Proceeding step 1 add 5 mL of HCl, and 5 mL of Deionized Water. Gently swirl the mixture and wait approximately 15 minutes before closing the vessel.

Notes

The addition of Conc. HCl (0-4 mL) is appropriate for the stabilization of Ag, Ba and Sb, and high concentrations of Fe and Al in solution. The amount of HCl will vary depending on the matrix and the concentration of the analytes. The addition of HCl may, however, limit the techniques or increase the difficulties of analysis.

Reagents

HCl
DI H_2O

Heating Program

Stage	Temp (°C)	*Ramp (mm:ss)	Hold (mm:ss)	Pressure (psi)	* Power (W)	Stirring
1	200	15:00	10:00	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) 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.