

Microwave Digestion of Bunker Oil

Procedure

Weigh 0.3 g of the sample into the digestion vessel. Add 10 mL of HNO₃. 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.

The pre-digestion step will allow the lighter fuel fractions to react before sealing the vessels.

Recommended Equipment	Recommended Vessels	Reagents
MARS 6 iWave	iPrep	HNO ₃

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

Heating Progr	am					
Stage	Temp (°C)	*Ramp (mm:ss)	Hold (mm:ss)	Pressure (psi)	* Power (W)	Stirring
1	250	30:00	20:00	N/A	700-1800	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.