MARS 6™
Method Note

Microwave Digestion of Cryolite / Electrolytic Bath

Step 1 of 2

Procedure

Weigh 0.5g of the sample into the digestion vessel. Add 10 mL HNO_3. Gently swirl the mixture and wait approximately 15 minutes before closing the vessel

Notes

Cryolite / Electrolytic Bath is approximately 55% Cryolite (Na_3AlF_6) and 30% Chiolite ($Na_5Al_3F_{14}$).

Recommended Equipment	Recommended Vessels	Reagents
MARS 6 MARS 6 iWave	EasyPrep EasyPrep Plus	HNO_3

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

Heating Program

Stage	Temp (°C)	*Ramp (mm:ss)	Hold (mm:ss)	Pressure (psi)	* Power (W)	Stirring
1	200	15:00	15:00	800	900-1800	Off

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

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Microwave Digestion of Cryolite / Electrolytic Bath

Step 2 of 2

Procedure

Allow vessel to cool after completion of Step 1. Open and add 30 mL of Deionized Water and 2 g Boric Acid (solid). Gently swirl the mixture and seal the vessel.

Notes

Reagents

DI H_2O
Boric Acid (solid)

Sample Type	Control Type	Method Type
Organic	Ramp to Temperature	One Touch

Heating Program

Stage	Temp (°C)	*Ramp (mm:ss)	Hold (mm:ss)	Pressure (psi)	* Power (W)	Stirring
1	175	15:00	15:00	800	900-1800	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) 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.