

USP 281 (U.S. Pharmacopoeia)

Milestone Application Note for Ashing – Sulphate ashing - Officials



Summary

This procedure covers the determination of the Residue on Ignition (ROI) on pharmaceutical products according to United States Pharmacopoeia standards.

Instrumentation

Milestone PYRO SA microwave system

Crucibles (quartz, ceramic)

Analytical balance ($\pm 0,0001\text{g}$)

Disseccator

Spatula



Sample amount

Sample weight	1-2 g (according to individual substance monograph)
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Reagents

Reagent	1 mL of H ₂ SO ₄
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Procedure

1. Place a clean crucible on the balance plate, tare it and weigh the sample.
2. Add the reagent.
3. Place the crucible into the preheated furnace.
4. Remove the crucible from the furnace and cool it in disseccator.
5. Place the crucible on the balance plate and take the weigh.
6. Calculate the ash residue.

Notes

The crucible before use must be at constant weight.

All modifications to the present method must be agreed with Milestone Application Specialist.

Microwave program

Step	Time	#T1	Power	VAC
1	00:15:00	250°C	1000 W	X
2	00:40:00	250°C	1000 W	X
3	00:30:00	#600°C	1800 W	X
4	00:30:00	#600°C	1800 W	

The ashing temperature must be set in accordance to what provided by the individual substance monograph.

General precautions

Always use hand, eye and body protection when operating with the microwave system.

Subject to change without notice.

For additional information please contact
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