



# Phoenix BLACK™ Sulfated Ash

Sulfated Ashing System







**FAST**



**SAFE**



**EASY**

# Rapid and safe quantification of impurities.

The Phoenix BLACK™ Sulfated Ash provides complete, safe sulfated ashing in as little as 45 minutes and requires minimal oversight from personnel. Simply add  $\text{H}_2\text{SO}_4$  to a sample and place the crucible inside the furnace. The system will heat to 300°C and hold that temperature to mimic pre-ashing. Once that is complete, the system will automatically ramp to a pre-specified temperature to complete the ashing process. With the included vacuum pump and scrubber module, all acid vapors are safely removed and neutralized, making the system safer and simplifying cleanup.

## Sulfated Ash for Any Sample

Dual magnetrons generate microwave energy to rapidly heat the furnace, never interacting with the sample, yet providing rapid heating to ramp to temperature quickly. The included NIST-traceable dual thermocouple provides precise temperature monitoring and control so samples are ashed with confidence.

## Applications

The Phoenix BLACK Sulfated Ash can be used to ash a wide variety of samples, including but not limited to:

- |                        |                    |                   |
|------------------------|--------------------|-------------------|
| • APIs                 | • Greases          | • Pharmaceuticals |
| • Concentrates         | • Lactose          | • Polymers        |
| • Elastomers           | • Lubricating Oils | • PVC             |
| • Excipients           | • Mineral Oils     | • Raw Materials   |
| • Industrial Chemicals | • Molasses         | • Rubber          |
| • Glycerin             | • Petroleum        | • Sugar           |

# Reduce oversight and limit exposure.

With precise temperature control and uniformity, the Phoenix BLACK Sulfated Ash prevents foaming and spattering often seen with traditional muffle furnaces. Programmable methods eliminate the need for pre-ashing prior to placing the sample in the muffle furnace. Minimal observation and handling are required; simply add sulfuric acid to the sample, place the crucible in the furnace, and press start. The system module neutralizes caustic gasses and vents fumes through a dedicated exhaust line. This frees up valuable acid-resistant hood space and operator time, while reducing cleaning and maintenance costs resulting from sulfuric acid vapor.



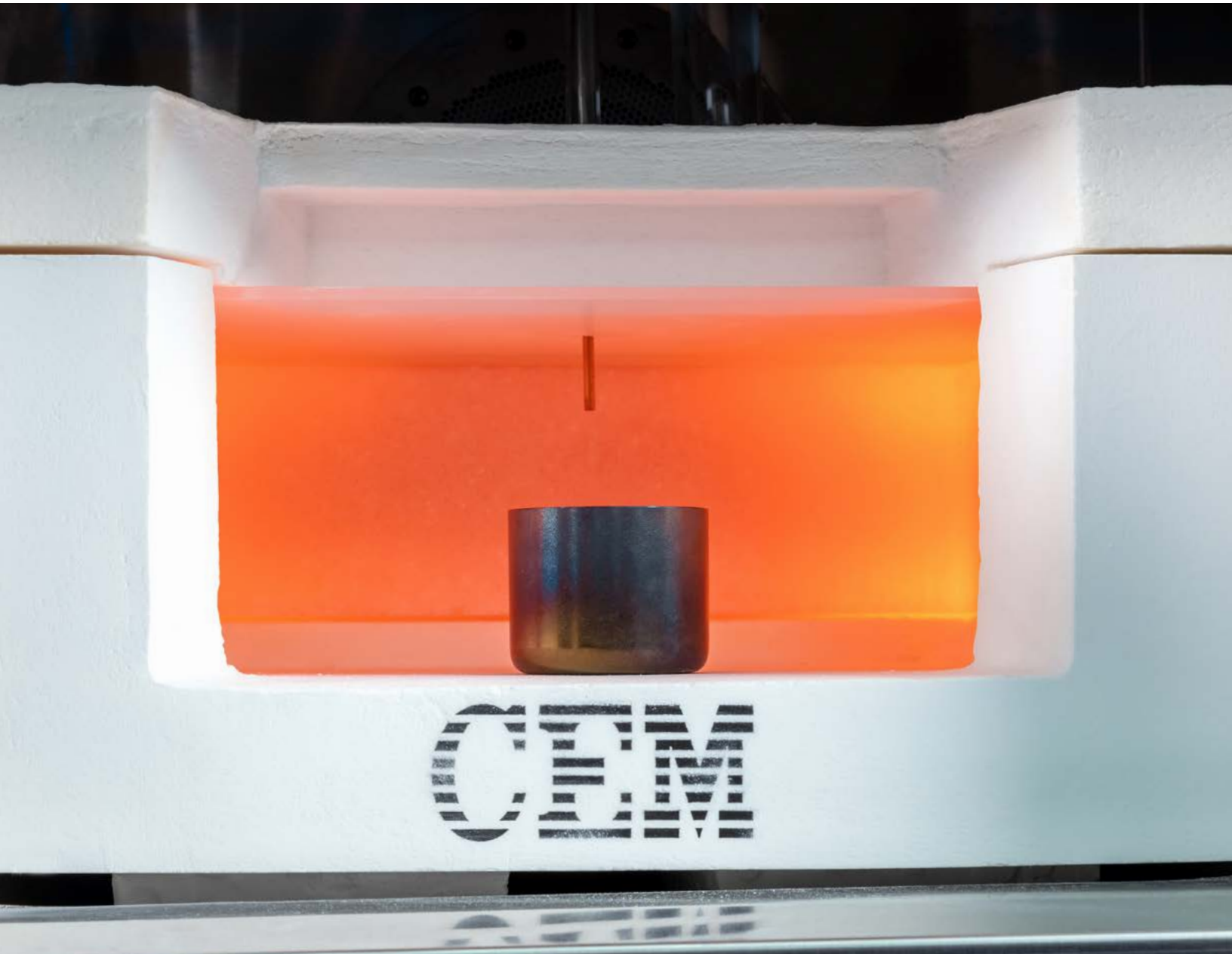
# Customize to your specific needs.

The user-friendly software allows for methods to be quickly created to meet specific needs. Program start times so that the system is ready upon arrival. Pair the system with the workstation option, which includes a connected balance and printer, for automatic digital and hard-copy results. Connect the system to your LIMS for easy data storage and viewing. Automatic, safe temperature ramping, customized methods, and various integrated systems free lab personnel for other tasks. All users are granted access to pre-existing methods, created by CEM application specialists, and application support after purchase.



## Compatible with all crucibles.

Crucibles of any kind can be used with the system: platinum, porcelain, nickel, etc. are all compatible. For additional time savings, utilize CEM's quartz fiber crucibles that cool within seconds of being removed from a 1000°C muffle furnace. This allows for final weights to be taken almost immediately, limiting desiccation and handling times and providing results more rapidly.



# Meets industry requirements.

The CFR 21 Part 11 compliant Phoenix BLACK Sulfated Ash satisfies requirements for methods that specify electrically heated” and “microwave heated” furnaces. This includes ASTM D874, ISO 3987, USP 281, and other ASTM, ISO, Ph. Eur., USP, DIN, AOAC, etc. methods. Temperature verification and calibration required for ISO and GLP practices are quickly and easily performed with accessories, including the NIST-traceable dual thermocouple and calibration source instrument. The system is ETL listed and built in a facility certified to ISO 9001.





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