



2731 Bartram Road  
Bristol, PA 19007-6893  
800.385.3153  
www.unitedchem.com

## CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** CUQAX1  
**CHEMICAL:** QUATERNARY AMINE BONDED PARTICLE  
**SILICA TYPE:** Irregular particles 40-63 micron, 60 Angstrom pores  
**LOT NUMBER:** 718290-DY

| <u>Test</u>                                    | <u>Method</u> | <u>Specification Values</u> |            | <u>Lot Analysis</u>     |
|------------------------------------------------|---------------|-----------------------------|------------|-------------------------|
|                                                |               | <u>Min</u>                  | <u>Max</u> |                         |
| Appearance                                     | Visual        | White Fine Powder           |            | White Fine Powder       |
| Average Pore Size                              | SOP82-4.042   | 55Å                         | 65Å        | 60Å                     |
| Surface Area (m <sup>2</sup> /g)               | SOP82-4.042   | 470                         | 530        | 530 m <sup>2</sup> /g   |
| Pore Volume (cm <sup>3</sup> /g)               | SOP82-4.042   | 0.70                        | 0.85       | 0.74 cm <sup>3</sup> /g |
| Carbon Analysis by Weight<br>(Organic Loading) | SOP82-4.024   | 7.09%                       | 9.71%      | 8.18%                   |
| Anion Exchange                                 | SOP82-4.028   | 0.200                       | 0.260      | 0.236 meq/g             |
| Extraction                                     | SOP82-4.014   | 80.00%                      | 110.0%     | Pass                    |

*The shelf life is only valid if the material is stored in the original unopened container.  
The specifications and lot analysis are only valid using the listed methods.  
The test methods and specifications were current when the product was lotted.*

**CERTIFIED BY:**  
**NAME:** L. Bender

**TITLE:** QC Analyst

**Certificate issue DATE:** 12/08/2022

2731 Bartram Road / Bristol, PA 19007 USA / Phone 215-781-9255 / Fax 215-785-1226  
Email: [info@unitedchem.com](mailto:info@unitedchem.com) Internet: [HTTP://www.unitedchem.com](http://www.unitedchem.com)