



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

## CERTIFICATE OF ANALYSIS

**PRODUCT NAME:**

CUMPSGGC182CT

**CHEMICAL:**

Mixture of MgSO<sub>4</sub>, CUPSA, EEC18, ChloroFiltr

**SILICA TYPE:**

Irregular particles 40-63 micron, 60 Angstroms

**LOT NUMBER:**

043761-AB

|   |             | Specification Values |         | Lot Analysis            |
|---|-------------|----------------------|---------|-------------------------|
| Test  | Method      | Min                  | Max     |                         |
| 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    | 0.75 cm <sup>3</sup> /g |
| Appearance                                  | Visual      | White Fine Powder    |         | White Fine Powder       |
| MgSO4 (lot#919010-BE)                       |             |                      |         |                         |
| Assay                                       | Ignition    | 99.50%               | 100.5%  | 100.0%                  |
| ● Total sorbent weight per tube (150mg)     |             | 143                  | 158     | Conforms                |
| CUPSA (lot#817221-GE)                       |             |                      |         |                         |
| Carbon Analysis by Weight (Organic Loading) | SOP82-4.024 | 10.50%               | 12.50%  | 11.40%                  |
| Anion Exchange                              | SOP82-4.028 | 1.00                 | 1.50    | 1.041meq/g              |
| ● Total sorbent weight per tube (50mg)      |             | 48                   | 53      | Conforms                |
| EEC18 (lot#911310-BL)                       |             |                      |         |                         |
| Carbon Analysis by Weight (Organic Loading) | SOP82-4.024 | 20.50%               | 22.70%  | 21.11%                  |
| Endcapping                                  | SOP82-4.027 | 0.00abs              | 2.00abs | 1.061 abs               |
| ● Total sorbent weight per tube (50mg)      |             | 48                   | 53      | Conforms                |
| Chloro Filtr® (lot#20180397)                |             |                      |         |                         |
|   |             | Conforms             |         | Conforms                |
| ● Total sorbent weight per tube (50mg)      |             | 48                   | 53      | Conforms                |

- All components of this product are individually weighed. The mass of each raw material meets method required tolerances.

*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:** 07/10/2019

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)