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

## **CERTIFICATE OF ANALYSIS**

**PRODUCT NAME:** ECQUEU615CT

CHEMICAL: Mixture of MgSO4, CUPSA, CUCARB SILICA TYPE: Irregular particles 40-63 micron, 60 Angstroms

LOT NUMBER: 073178-CZ

|   |             | <b>Specification Values</b> |            | <b>Lot Analysis</b>          |
|---|-------------|-----------------------------|------------|------------------------------|
| Test  | Method      | Min                         | <u>Max</u> |                              |
| Average Pore Size                           | SOP82-4.042 | <u>Min</u><br>55Å           | 65Å        | 60Å                          |
| Surface Area (m <sup>2</sup> /g)            | SOP82-4.042 | 470                         | 530        | $496\text{m}^2/\text{g}$     |
| Pore Volume (cm <sup>3</sup> /g)            | SOP82-4.042 | 0.70                        | 0.85       | $0.73 \text{ cm}^3/\text{g}$ |
| Appearance                                  | Visual      | White Fine Powder           |            | White Fine Powder            |
| <b>MgSO4</b> (lot#226040-BQ)                |             |                             |            |                              |
| Assay                                       | Ignition    | 99.50%                      | 100.5%     | 100.1%                       |
| • Total sorbent weight per tube (900mg)     |             | 855                         | 945        | Conforms                     |
| <b>CUPSA</b> (lot#128290-GZ)                |             |                             |            |                              |
| Carbon Analysis by Weight (Organic Loading) | SOP82-4.024 | 10.50%                      | 12.50%     | 11.57%                       |
| Anion Exchange                              | SOP82-4.028 | 1.00                        | 1.50       | 1.116 meq/g                  |
| • Total sorbent weight per tube (150mg)     |             | 143                         | 158        | Conforms                     |
| <b>CUCARB</b> (lot#225290-EU)               |             |                             |            |                              |
| Graphitized carbon (Surface area)           | SOP82-4.042 |                             |            | $133 \text{ m}^2/\text{g}$   |
| • Total sorbent weight per tube (45mg)      |             | 43                          | 47.3       | 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: D. Kearns

TITLE: QC Analyst

Certificate issue DATE: 01/04/2023

2731 Bartram Road / Bristol, PA 19007 USA / Phone 215-781-9255 / Fax 215-785-1226

Email: <a href="mailto:info@unitedchem.com">info@unitedchem.com</a> Internet: HTTP://www.unitedchem.com