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

CERTIFICATE OF ANALYSIS

PRODUCT NAME: CUMPS15C18CT

CHEMICAL: Mixture of MgSO4, CUPSA, CEC18

SILICA TYPE: Irregular particles 40-63 micron, 60 Angstroms

LOT NUMBER: 069410-NP

		Specific	eation Values	Lot Analysis
<u>Test</u>	Method	Min	Max	
Average Pore Size	SOP82-4.042	55Å	65Å	60Å
Surface Area (m ² /g)	SOP82-4.042	470	530	$496 \text{ m}^2/\text{g}$
Pore Volume (cm ³ /g)	SOP82-4.042	0.70	0.85	$0.73 \text{ cm}^{3}/\text{g}$
Appearance	Visual	White F	ine Powder	White Fine Powder
MgSO4 (lot#121120-BL)				
Assay	Ignition	99.50%	100.5%	100.2%
• Total sorbent weight per tube (150mg)		143	158	Conforms
CUPSA (lot#128040-GU)				
Carbon Analysis by Weight	SOP82-4.024	10.50%	12.50%	11.13%
(Organic Loading)				
Anion Exchange	SOP82-4.028	1.00	1.50	1.108meq/g
• Total sorbent weight per tube (150mg)		143	158	Conforms
CEC18 (lot#125170-CP)				
Carbon Analysis by Weight (Organic Loading)	SOP82-4.024	20.50%	22.70%	21.25%
Endcapping	SOP82-4.027	0.00abs	0.90abs	0.529abs
• 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: 07/22/2022

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