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

CERTIFICATE OF ANALYSIS

PRODUCT NAME: CUMPSGGC182CT

CHEMICAL: Mixture of MgSO4, CUPSA, EEC18, ChloroFiltr SILICA TYPE: Irregular particles 40-63 micron, 60 Angstroms LOT NUMBER: 041700-AA

		Specification Values			Lot Analysis
Test	Method	Min	Max		
Average Pore Size	SOP82-4.042	55Å	65Å		60Å
Surface Area (m ² /g)	SOP82-4.042	470	530		$530 \text{ m}^2/\text{g}$
Pore Volume (cm^{3}/g)	SOP82-4.042	0.70	0.85		$0.75 \text{ cm}^{3}/\text{g}$
Appearance	Visual	White Fir	ne Powder	White Fir	ne Powder
MgSO4 (lot#814160-BD)					
Assay	Ignition	99.50%	100.5%		99.90%
• Total sorbent weight per tube (150mg)		143	158		Conforms
CUPSA (lot#818011-GD)					
Carbon Analysis by Weight (Organic Loading)	SOP82-4.024	10.50%	12.50%		11.00%
Anion Exchange	SOP82-4.028	1.00	1.50		1.119meq/g
• Total sorbent weight per tube (50mg)		48	53		Conforms
EEC18 (lot#818020-BB)					
Carbon Analysis by Weight (Organic Loading)	SOP82-4.024	20.50%	22.70%		20.72%
Endcapping	SOP82-4.027	0.00abs	2.00abs		0.737abs
• Total sorbent weight per tube (50mg)		48	53		Conforms
Chloro Filtr® (lot#20180365)		Conforms	S		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: 04/19/2019

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