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## CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** CSDAU  
**CHEMICAL:** C8 + Benzyl Sulfonic Acid  
**SILICA TYPE:** Irregular particles 40-63 micron, 60 Angstrom pores  
**LOT NUMBER:** 324280-BN

<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	503m <sup>2</sup> /g
Pore Volume (cm <sup>3</sup> /g)	SOP82-4.042	0.70	0.85	0.70 cm <sup>3</sup> /g
Carbon Analysis by Weight (Organic Loading)	SOP82-4.024	12.00%	12.80%	12.23%
Cation Exchange	SOP82-4.025	0.065meq/g	0.088meq/g	0.073meq/g
%Recovery - Acid	SOP82-4.011	85.00%	110.0%	Pass
%Recovery - Neutral	SOP82-4.011	85.00%	110.0%	Pass
%Recovery - Base	SOP82-4.011	85.00%	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:** 09/01/2023

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