

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Cerium(III) carbonate hydrate – 99.9% trace metals basis

Product Number: 325503
Batch Number: MKBZ6699V
 Brand: ALDRICH
 CAS Number: 54451-25-1
 MDL Number: MFCD00149635
 Formula: C₃Ce₂O₉ · xH₂O
 Formula Weight: 460.26 g/mol
 Quality Release Date: 24 JUN 2016



Test	Specification	Result
Appearance (Color)	White to Off-White	White
Appearance (Form)	Powder	Powder
Complexometric EDTA % Cerium	≥ 40.0 %	43.3 %
ICP Major Analysis Confirms Cerium Component	Confirmed	Conforms
Purity 99.9% Based On Rare Earth Analysis	Meets Requirements	Meets Requirements
Trace Rare Earth Analysis	≤ 1500.0 ppm	286.8 ppm
Silver (Ag)		12.1 ppm
Aluminum (Al)		343.4 ppm
Barium (Ba)		4.7 ppm
Calcium (Ca)		3.4 ppm
Cadmium (Cd)		7.2 ppm
Chromium (Cr)		5.0 ppm
Copper (Cu)		2.1 ppm
Iron (Fe)		6.6 ppm
Potassium (K)		15.2 ppm
Lithium (Li)		14.8 ppm
Magnesium (Mg)		2.2 ppm
Manganese (Mn)		1.3 ppm
Molybdenum (Mo)		1.6 ppm
Sodium (Na)		78.4 ppm
Nickel (Ni)		25.5 ppm

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

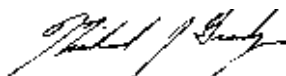
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Test	Specification	Result
Platinum (Pt)		20.4 ppm
Tin (Sn)		49.8 ppm
Strontium (Sr)		1.6 ppm
Titanium (Ti)		0.9 ppm
Zinc (Zn)		97.4 ppm
Zirconium (Zr)		23.2 ppm
Erbium (Er)		3.0 ppm
Europium (Eu)		21.9 ppm
Lanthanum (La)		44.3 ppm
Lutetium (Lu)		2.1 ppm
Praseodymium (Pr)		127.2 ppm
Terbium (Tb)		27.5 ppm
Yttrium (Y)		31.2 ppm
Ytterbium (Yb)		9.3 ppm



Michael Grady, Manager
Quality Control
Milwaukee, WI US

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