

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

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## Certificate of Analysis

Product Name:

Dysprosium - chips, 99.9% trace metals basis

**Product Number:** 263028  
**Batch Number:** MKBS1751V  
**Brand:** ALDRICH  
**CAS Number:** 7429-91-6  
**MDL Number:** MFCD00010982  
**Formula:** Dy  
**Formula Weight:** 162.50 g/mol  
**Quality Release Date:** 13 JUN 2014

# Dy

Test	Specification	Result
Appearance (Color) Grey	Conforms to Requirements	Grey
Appearance (Form) Shavings or Chips	Conforms	Conforms
ICP Major Analysis Confirms Dysprosium Component	Confirmed	Conforms
Purity 99.9% Based On Rare Earth Analysis	Meets Requirements	Meets Requirements
Trace Rare Earth Analysis	≤ 1500.0 ppm	1374.1 ppm
Aluminum (Al)		32.2 ppm
Barium (Ba)		0.4 ppm
Calcium (Ca)		249.0 ppm
Cadmium (Cd)		3.1 ppm
Cobalt (Co)		6.6 ppm
Chromium (Cr)		8.7 ppm
Copper (Cu)		12.1 ppm
Iron (Fe)		313.3 ppm
Iridium (Ir)		4.4 ppm
Magnesium (Mg)		19.3 ppm
Manganese (Mn)		12.5 ppm
Nickel (Ni)		4.6 ppm
Tin (Sn)		22.2 ppm
Strontium (Sr)		0.1 ppm
Titanium (Ti)		9.5 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.

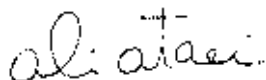
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Test	Specification	Result
Tungsten (W)		204.7 ppm
Zirconium (Zr)		34.9 ppm
Cerium (Ce)		64.0 ppm
Erbium (Er)		20.7 ppm
Europium (Eu)		1.4 ppm
Lanthanum (La)		96.5 ppm
Lutetium (Lu)		3.9 ppm
Neodymium (Nd)		14.1 ppm
Terbium (Tb)		1017.1 ppm
Thulium (Tm)		4.8 ppm
Yttrium (Y)		151.4 ppm



Ali Ataei, Manager  
Quality Control  
Milwaukee, WI US

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