



Eckert & Ziegler

Isotope Products

24937 Avenue Tibbitts
Valencia, California 91355

Tel 661•309•1010
Fax 661•257•8303

NOMINAL SOURCE CERTIFICATE

Customer: Eckert & Ziegler Isotope Products GmbH

Purchase Order No.: 38597

Model No.: Not applicable

Catalog No.: CF230360005U

Capsule Type: A3036-2

Active Diameter/Mass: 3.2 mm (0.125 ")

Cover: Stainless steel

Backing: Stainless steel

Certificate Date: 01-Jul-10

Quantity: 1

SS&DR No.: Not applicable

ISO Classification: Not applicable

Special Form No.: Not applicable

Nuclide Half Life: 2.645 ± 0.008 years

Recommended Working Life: 15 years

Nuclide	Source No.	Activity	Radiation Output	Reference Date
Cf-252	H2-164	5 µCi/185 kBq	Not applicable	1-Aug-10

Impurities: See Technical Data sheet.

Leak Test Information is on Reverse Side:

Remarks:

- This document uses the numerical convention where 1.000 = 1 and 1,000 = 10³.
- Nuclear data was taken from "Table of Radioactive Isotopes", edited by Virginia Shirley, 1986.

Matthew Day
Name

Matthew Day
Signature

6-5-10
Date

Notebook Page: 1412-100

ISO 9001 CERTIFIED

Medical Imaging Laboratory

24937 Avenue Tibbitts Valencia, California 91355

Industrial Gauging Laboratory

1800 North Keystone Street Burbank, California 91504



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Cf-252 Technical data

The Cf-252 used to prepare your order was taken from
Eckert & Ziegler Isotope Products Laboratories Lot #5128001
and it had the following composition as of 15 Mar 10.

<u>Nuclide</u>	<u>Mass %</u>	<u>Activity %</u>
Cf-249	9.936	0.1495
Cf-250	30.643	12.266
Cf-251	15.053	0.0877
Cf-252	44.368	87.497

The Cm-248 decay product was last separated on 3 Apr 01

Isotopic composition provided by Oak Ridge National Laboratory

If you have any questions, please contact Eckert & Ziegler
Isotope Products Technical Service: 661-309-1010

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Calibrated 252Cf source

Source donated by GSI to IFIC. Unofficially calibrated at PTB. No details about the calibration

PTB calibra	18167	291	15-Mar-11
n/s	error		

Date	T-T0 (d)	T-T0 (y)	250Cf	252Cf	Total yield (n/s)	Comments
3-Apr-01	-3633	-9.94661191	604	241384	241988	Last separation decay product 248Cm
1-Aug-01	-3513	-9.61806982	594	221471	222065	
1-Aug-02	-3148	-8.61875428	563	170445	171008	
1-Aug-03	-2783	-7.61943874	534	131175	131709	
1-Aug-04	-2417	-6.61738535	506	100880	101387	
1-Aug-05	-2052	-5.61806982	480	77638	78118	
1-Aug-06	-1687	-4.61875428	455	59750	60206	
1-Aug-07	-1322	-3.61943874	432	45984	46416	
1-Aug-08	-956	-2.61738535	410	35364	35774	
1-Aug-09	-591	-1.61806982	388	27216	27605	
1-Aug-10	-226	-0.61875428	368	20946	21314	
15-Mar-11	0	0	357	17810	18167	Neutron calibration date at PTB
1-Aug-11	139	0.38056126	349	16120	16469	
1-Aug-12	505	1.38261465	331	12397	12728	
1-Aug-13	870	2.38193018	314	9541	9855	
1-Aug-14	1235	3.38124572	298	7343	7641	
1-Aug-15	1600	4.38056126	283	5651	5934	
1-Aug-16	1966	5.38261465	268	4346	4614	
1-Aug-17	2331	6.38193018	254	3345	3599	
1-Aug-18	2696	7.38124572	241	2574	2815	
1-Aug-19	3061	8.38056126	229	1981	2210	
1-Aug-20	3427	9.38261465	217	1523	1740	
1-Aug-21	3792	10.3819302	206	1172	1378	
1-Aug-22	4157	11.3812457	195	902	1097	
1-Aug-23	4522	12.3805613	185	694	879	
15-Jan-24	4689	12.8377823	181	616	797	Today!

