



Certificate of analysis

Reference #: TM8875 – lot # 05064

Product name	Thulium (III) nitrate pentahydrate, 99.9%				
Product code	TM8875	CAS#	36548-87-5	Purity	99.9% (by emission spectroscopy)
Lot/batch #	05064	Net Weight/volume	500g	Country of origin	USA

Analytical results								
Titration	% Tm = 37.77%							
Purity	99.9%							
ICP	99.9% (metals basis)							
Impurity weight, ppm:	Ag	ND	Co	ND	Lu	30	Sb	ND
	Al	0.74	Cr	ND	Mg	ND	Se	ND
	As	< 1	Cu	ND	Mn	ND	Si	ND
	Ba	ND	Fe	ND	Mo	ND	Sn	ND
	Be	ND	Dy	<50	Na	15.86	Sr	ND
	Bi	ND	Er	<50	Ni	ND	Ti	ND
	Ca	ND	Ho	36	Pb	ND	V	ND
	Cd	ND	Li	ND	Pr	55	Y	49
	Yb	<200	Zn	3.24	Zr	ND	Tm	Main
Analysis date	4/14/2020							

% Tm = 37.77%

ND = not detected w/

0.2 ppm limit