



# CERTIFICATE OF ANALYSIS

*The Power to Question*

Catalog Number: sc-229459  
Lot Number: SAMPLE  
Product Name: Thulium(III) chloride hexahydrate  
CAS Number: 1331-74-4  
Molecular Formula:  $\text{TmCl}_3 \cdot 6\text{H}_2\text{O}$   
Molecular Weight: 383.38

Test	Specification	Result
Appearance	White to green	Green
Appearance (Form)	Crystals or crystalline powder	Crystals
Identification (ICP)	Confirms Thulium Component	Complies
Purity	99.99% based on rare earth analysis	Complies
Content	Trace rare earth analysis: $\leq 200.0$ ppm	$< 200.0$ ppm
Aluminum		0.5 ppm
Arsenic		8.8 ppm
Bismuth		$< 0.4$ ppm
Boron		2.4 ppm
Calcium		2.4 ppm
Cesium		0.1 ppm
Chromium		0.2 ppm
Copper		0.3 ppm
Dysprosium		0.1 ppm
Erbium		1.3 ppm
Europium		0.4 ppm
Gadolinium		0.9 ppm
Holmium		1.2 ppm
Iron		0.4 ppm

Satisfaction Guarantee: We appreciate your business and are committed to providing the highest level of quality and service. Any product that does not meet the performance standards indicated in our product literature will be replaced at no charge. Our policy is valid for one year from the date of your purchase.

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Lead		0.1 ppm
Manganese		0.5 ppm
Platinum		5.9 ppm
Potassium		0.2 ppm
Rhenium		4.1 ppm
Sodium		2.7 ppm
Strontium		0.9 ppm
Terbium		0.2 ppm
tin		2.1 ppm
Thulium	41.9 - 46.3 % (Complexometric EDTA)	44.0%
Ytterbium		1.8 ppm
Yttrium		5.9 ppm
Zinc		1.1 ppm

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