

## CERTIFICATE OF ANALYSIS

PRODUCT NAME: Zirconium butoxide solution,80 wt. % in n-butanol

ITEM NUMBER: Z106334  
BRAND: Aladdin  
CAS NUMBER: 1071-76-7  
MDL NUMBER: MFCD00048765  
FORMULA: ZrO<sub>4</sub>C<sub>16</sub>H<sub>36</sub>  
MOLECULAR WEIGHT: 383.68

TEST	SPECIFICATION		TARGET VALUE
	MIN.	MAX.	
Appearance	Colorless to Yellow Viscous Liquid		
Concentration(Chelometric Method)	80 %	86 %	86 %
HYDROLYZABLE CHLORIDE	0 ppm	1000 ppm	1000 ppm
Iron(Fe)	0 ppm	300 ppm	300 ppm
Proton NMR spectrum	Conforms to Structure		
Solubility in ETOH	Clear, Colorless to Yellow		
Specific gravity (20/20 ° C)	1.06	1.08	1.08
ZRO2	27 %	29 %	29 %