

CERTIFICATE OF ANALYSIS

Product : **TRIS Ultrapure (Tris(hydroxymethyl)aminomethane)**
 Product number : T1501
 Batch number : 012170
 Date of analysis : 05-05-2013
 Expiry date : 31-05-2018

Packaging and storage : in a well closed container, store at room temperature

	SPECIFICATION	RESULT	UNITS	REMARKS
Appearance	white crystalline solid	complies		
Solubility	soluble in water	complies	°C	25°C / >700 g/l
Identification	IR-spectrum	complies		
Appearance of solution	clear, colourless	complies		1M H2O 20°C
Insoluble matter	≤ 0.03	0.0045	%	
Loss on drying	≤ 0.5	0.25	%	3 hrs 105 °C
Melting point	168 – 172	169.5 – 170.8	°C	
pH	10.5 – 11.5	10.98		
Residue on ignition	≤ 0.1	complies	%	
Arsenic (As)	< 1	complies	ppm	
Heavy metals	≤ 5	2	ppm	as Pb
Iron (Fe)	≤ 5	2.5	ppm	
Chloride (Cl)	≤ 3	2	ppm	
Assay	99.5 – 101.0	99.92	%	titration

This certificate of analysis is conform the results of the manufacturer.

Conclusion: approved

Released by:

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drs. M. van Wissen, pharmacist
 Department of Quality Control Duchefa B.V.

Date: 13-06-2016

S. de Bree
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The buyer is responsible to test each batch to ensure the product is suitable for their specific purpose.