

CERTIFICATE OF ANALYSIS

Product : **TRIS Ultrapure (Tris(hydroxymethyl)aminomethane)**
 Product number : T1501
 Batch number : 006329
 Quality : Ph.Eur.
 Manufacturing date : 05-03-2009
 Expiry date : 05-03-2014
 Formula : $C_4H_{11}NO_3 = 121.14$
 Storage : Store at room temperature

	SPECIFICATION	RESULT	UNITS	REMARKS
Appearance	white crystalline solid	complies		
Absorbance	≤ 0.050	0.018		1 M, 290 nm
Identity	conform	complies		IR-spectrum
Insoluble matter	≤ 0.005	< 0.005	%	
Loss on drying	≤ 0.2	0.07	%	3 hrs 105 °C
Melting point	168 – 172	169.5	°C	
pH	10.5 – 11.5	10.7		1M H ₂ O 25°C
Residue on ignition	≤ 0.1	< 0.1	%	
Solubility	clear, colourless	complies		1M H ₂ O 20°C
Heavy metals	≤ 1	< 1	ppm	as Pb
Iron (Fe)	≤ 1	< 1	ppm	
Chloride (Cl)	≤ 100	< 5	ppm	
Assay	99.9 – 100.5	100.0	%	titration
Related Substances (TLC)	meets requirements	complies		

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

Conclusion: approved
 Released by

: drs. J.A.M. Rutgers, pharmacist
 Department of Quality Control Duchefa BV

Date: 25-08-2009

