

## **CERTIFICATE OF ANALYSIS**

Product : BES

N,N-BIS(2-HYDROXYETHYL)-2-AMINOETHANESULFONIC ACID

Product number : B1514
Batch number : 012270
Date of analysis : 19-07-2016
Date of expiry : 31-07-2019

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

Appearance	SPECIFICATION white crystalline powder	RESULT complies	UNITS	REMARKS
Identification	conform	complies		IR-spectrum
Solubility	clear and colourless	complies		5% in H <sub>2</sub> O
pKa	6.9 - 7.3	7.1		20°C
Loss on drying	≤ 0.5	0.1	%	105°C
Residue on ignition	≤ 0.01	< 0.005	%	900°C
Chloride	$\leq 0.005$	complies	%	
Sulfate	≤ 0.005	complies	%	
Heavy metals	≤ 5	complies	ppm	
UV absorbance (250 nm)	≤ 0.05	0.003	AU	5% in H <sub>2</sub> O
Assay	≥ 99	99.6	%	dried substance

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

Conclusion: approved

Released by: drs. M. van Wissen, pharmacist

Department of Quality Control Duchefa B.V.

Date: 21-07-2016

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

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