



CERTIFICATE OF ANALYSIS

The Power to Question

Catalog Number: sc-215159
Lot Number: SAMPLE
Product Name: Hydroxyethyl starch
CAS Number: 9005-27-0
Molecular Formula:
Molecular Weight:

Test	Specification	Result
Appearance	White or almost white crystalline powder	Complies
Assay	$\geq 98.50\%$	99.50%
Identification	Positive (chemical reaction)	Complies
Identification (Infrared Spectrum)	Corresponds to reference spectrum	Complies
Clarification of Solution	$< 2\#$ stand turbidity solution (degree)	Complies
Molecular Weight	> 15000 (MW at 10 percent lowest fraction)	21296
Molecular Weight	< 300 percent of nominal MW (MW at 10 percent highest fraction)	421150
Solubility	Freely soluble in water and in dimethyl sulfoxide, practically insoluble in anhydrous ethanol	Complies
Viscosity	13.0 - 17.0 (characteristic viscosity)	15.7
Absorbance	≤ 0.025	0.012
Molar Substitution	0.38 - 0.45 (MS)	0.39
Acidity	4.5 - 7.0 (pH [5% w/v])	5.6
Heavy Metals	≤ 10 ppm	Complies
Impurity	≤ 1 ppm (Ethylene oxide)	Not detected
Loss on Drying	$\leq 5\%$	3.4%
Ratio	8.0 - 9.0 (C2/C6 ratio)	8.6
Ethylene Glycol	≤ 40 ppm	36 ppm
Sodium Chloride	$\leq 0.1\%$	$\leq 0.02\%$

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.

Santa Cruz Biotechnology, Inc. 800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 62221 4503 0 www.scbt.com

Bacterial Endotoxins	< 2.5 EU/g	Complies
E. Coli	Negative	Complies
Microbial Count	≤ 100 cfu/g [Microorganism (TAMC)]	≤ 10 cfu/g

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