



CERTIFICATE OF ANALYSIS

Sodium Calibration Standard for Collagen Hydrolysate 012506C

Product: Sodium Calibration Standard for Collagen Hydrolysate

Part Number: 012506C

Lot Number: 002006

Test Start Date: 08 Feb 2010

Primary Application: This calibration standard is a solution of 21 amino acids and ammonia in 0.27 N sodium citrate buffer, pH 2.2., with 0.01 N phenol added as a preservative. This calibration standard is intended to be used for calibration of chromatographic instrumentation for determination of amino acids.

Acceptance Criteria: The concentrations for 21 amino acids and ammonia are within $\pm 4\%$ of those stated below. These values are based on the results of HPLC analysis using certified NIST amino acids standard and Sigma amino acids standard.

Compound	Concentrations $\mu\text{M}/\text{mL}$
L-Alanine	0.25
Ammonia	0.25
L-Arginine	0.25
L-Aspartic acid	0.25
L-Cystine	0.25
L-Glutamic acid	0.25
Glycine	0.25
L-Histidine	0.25
L,L &allo-Hydroxylysine	0.25
4-trans-L-Hydroxyproline	1.25
L-Isoleucine	0.25
L-Leucine	0.25
L-Lysine	0.25
L-Methionine	0.25
Methionine-D,L-sulfoxide	0.25
L-Phenylalanine	0.25
L-Proline	1.25
L-Serine	0.25
L-Threonine	0.25
L-Tyrosine	0.25
L-Valine	0.25

Analysis Certified by: 

Date: 02 MAR 2010

VP O&P
Title

Rev.5,11/13/09

ACCEPTED
PICKERING LABORATORIES, INC.
QUALITY ASSURANCE