

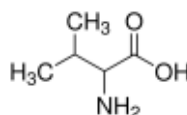
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## Product Specification

Product Name:  
DL-Valine - ≥97%

Product Number: **W344400**  
CAS Number: 516-06-3  
MDL: MFCD00004267  
Formula: C<sub>5</sub>H<sub>11</sub>NO<sub>2</sub>  
Formula Weight: 117.15 g/mol



TEST	Specification
Appearance (Color)	White
Appearance (Form)	Powder
Final Melting Point	≤ 295 °C
Proton NMR Spectrum	Conforms to Structure
Infrared spectrum	Conforms to Structure
Purity (GC)	≥ 97.0 %
Carbon	49.7 - 52.8 %
Nitrogen	11.6 - 12.3 %
Solubility (Turbidity) c = 5%; Water	Clear to Slightly Hazy
Solubility (Color)	Colorless to Faint Yellow
Water (by Karl Fischer)	≤ 3.0 %
Optical Rotation No Rotation c = 5%; Water	
Arsenic (As)	≤ 3 ppm
Cadmium (Cd)	≤ 1 ppm
Mercury (Hg)	≤ 1 ppm
Lead (Pb)	≤ 10 ppm
Expiration Date Period 5 Years	-----

Specification: PRD.2.ZQ5.10000038582

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.