

Analytical Data Sheet

Lot number **1076370**
not for drug use

Catalog number **C-2805.0100**
Product number **4000403.0100**
Product **Z- Val- OH**
Molecular formula **C₁₃H₁₇NO₄**
Relative molecular mass **251.28**

Tests	Results								
Appearance	white powder								
Appearance of solution	clear, colorless solution (50 mg/mL in methanol)								
Identification (elemental analysis)	<table> <thead> <tr> <th>Theory</th> <th>Found</th> </tr> </thead> <tbody> <tr> <td>C = 62.1%</td> <td>C = 62.2%</td> </tr> <tr> <td>H = 6.8%</td> <td>H = 6.7%</td> </tr> <tr> <td>N = 5.6%</td> <td>N = 5.5%</td> </tr> </tbody> </table>	Theory	Found	C = 62.1%	C = 62.2%	H = 6.8%	H = 6.7%	N = 5.6%	N = 5.5%
Theory	Found								
C = 62.1%	C = 62.2%								
H = 6.8%	H = 6.7%								
N = 5.6%	N = 5.5%								
Identification (TLC)	complies with authentic material								
Melting point	62 °C								
Specific optical rotation	$[\alpha]_D^{24} = -4.3^\circ$ (2 % in acetic acid)								
Purity (HPLC)	99.3%								
Related impurities (HPLC)	< 0.1% Z-Val-Val-OH								
Purity (TLC)	> 99%								
Related impurities (TLC)	< 0.1% H-Val-OH								
TLC conditions	toluene/dioxane/acetic acid 95/25/4 chloroform/methanol/acetic acid 90/8/2 chloroform/ethylacetate/acetic acid 50/50/2 plate: silicagel 60 F ₂₅₄ detected by: UV, ninhydrin, TMB								
Enantiomer content (GC)	< 0.10% Z-D-Val-OH								
Other amino acids (GC)	< 0.3%								
Assay (elemental analysis)	100.0% (Cth 62.14%, Cfd 62.17%)								
Assay (titration)	99.4% (TBAH)								

Latest update: April 17, 2018

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