

Hefei TNJ Chemical Industry Co.,Ltd. B911 Xincheng Business Center, Qianshan Road, Hefei 230022 China Tel : (0086) 551 65418695 Fax: (0086) 551 65418697 Email: info@tnjchem.com Site: www.tnjchem.com

Certificate of Analysis

D-Calcium Pantothena	te				
CAS No.137-08-6M.F.C18H32CaN2O10M.W.476.53N.W.2,250.00kgG.W.2,550.00kg		Batch Number	TNJ20140.	40325002	
		Packing	25.00kgfib	25.00kgfiber/Carton Mar 25, 2014	
		MFG Date	Mar 25, 20		
				2014	
	Specificatio	n		Results	
Appearance White powder Identification		er		Confirm	
A:Infrared Absorption á197Kñ Complies with		th the reference spect	rum	Confirm	
		-		Confirm	
sts for Calcium					
Specific Optical Rotation $+25.0^{\circ} \sim +27$		+27.5°		+26.81°	
Alkalinity no pink color is produ		r is produced within s	5 seconds	Confirm	
Loss on drying, % ≤ 5.0				4.74	
als	\leq 0.002			Confirm	
ry impurities, % ≤1.0				Confirm	
Organic volatile impurities, % Meets the real		quirements		Confirm	
trogen content, $\%$ 5.70~6.0				5.70	
)	8.20~8.60			8.35	
	98.0~102.0			100.05	
	98.0~102.0			100.0	
-				Liu W	
- ·		SCOORI COM LILL	THE THE		
	6,	.,Ltd	STAT CALL		
	C ₁₈ H ₃₂ CaN ₂ O ₁₀ 476.53 2,250.00kg 2,550.00kg e on Absorption á197Kñ on (1 in 20) responds sts for Calcium otical Rotation Ving, % als npurities, % latile impurities, % ontent, % 5 Xu Dong The Quality of th Quality Control Te	$C_{18}H_{32}CaN_2O_{10}$ 476.532,250.00kg2,550.00kg2,550.00kgSpecificationeWhite powderonAbsorption á197KñComplies withon (1 in 20) respondsConforms tosts for Calciumotical Rotation+25.0°ving, % ≤ 5.0 als ≤ 0.002 npurities, %Meets the responseontent, %5.70~6.08.20~8.6098.0~102.0Xu DongXu DongRe-checkerLuThe Quality of the above said is in Quality Control Team-Technology I	$C_{18}H_{32}CaN_2O_{10}$ Packing476.53MFG Date2,250.00kgAnalysis Date2,550.00kgExpiry Date2,550.00kgSpecification e White powderonMKG DateAbsorption á197KñComplies with the reference specton (1 in 20) respondsConforms to USP30sts for Calcium $+25.0^{\circ} \sim +27.5^{\circ}$ no pink color is produced within 5ving, % ≤ 5.0 als ≤ 0.002 npurities, % ≤ 1.0 latile impurities, %Meets the requirementsontent, % $5.70 \sim 6.0$ e $8.20 \sim 8.60$ $98.0 \sim 102.0$ Xu DongRe-checkerXu DongRe-checkerLu XiaopingThe Quality of the above said is in conformity with USQuality Control Team-Technology Departmentof Hefei TNJ Chemical Industry Co., Ltd	$C_{18}H_{32}CaN_2O_{10}$ Packing $25.00kgfthermit476.53MFG DateMar 25, 202,250.00kgAnalysis DateMar 25, 202,550.00kgExpiry DateMar 24, 202,550.00kgSpecificationMar 24, 20SpecificationSpecificationMar 24, 20Absorption á197KñComplies with the reference spectrumMar 24, 20Absorption á197KñComplies with the reference spectrumMar 24, 20Absorption á197KñComplies with the reference spectrumSpecificationabsorption á197KñComplies with the reference spectrumSpecificationabsorption á197KñComplies with the reference spectrumSpecificationbitcal Rotation+25.0^{\circ} \sim +27.5^{\circ}No pink color is produced within 5 secondsabs\leq 0.002SpecificationSpecificationabs\leq 0.002SpecificationSpecificationbitcal Rotation+25.0^{\circ} \sim +27.5^{\circ}No pink color is produced within 5 secondsabs\leq 0.002SpecificationSpecificationabs\leq 0.002SpecificationSpecificationbitcal Rotation+25.0^{\circ} \sim +27.5^{\circ}Specificationbitcal Rotation+25.0^{\circ} \sim +27.5^{\circ}Specificationabs\leq 0.002SpecificationSpecificationbitcal Rotation+25.0^{\circ} \sim +27.5^{\circ}Specificationbitcal Rotation\leq 0.002SpecificationSpecificationbitcal Rotation\leq 0.002Specification$	