

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com
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Product Specification

Product Name:

Trizma* base - BioPerformance Certified, meets EP, USP testing specifications, suitable for cell culture, ≥99.9% (titration)

Product Number: T6066 CAS Number: 77-86-1

MDL: MFCD00004679
Formula: C4H11NO3
Formula Weight: 121.14 g/mol

HO NH₂

TEST Specification

(Total: Ag, As, Bi, Cd, Cu, Hg, Mo, Pb, Sb, Sn) Appearance (Color) White Appearance (Form) Crystalline Powder Solubility (Color) Colorless Solubility (Turbidity) Clear 200 g plus 300 ml of H2O Colorless Solubility (Turbidity) Clear 2.5 g plus 50 ml of CO2-Free H2O (EP) Clear Water (by Karl Fischer) ≤ 0.2 % Loss on Drying ≤ 0.5 % (EP) C Loss on Drying (USP) ≤ 1.0 % Initial Melting Point ≤ 168 ℃ Final Melting Point ≤ 172 ℃ UV Absorbance 290nm 40% (w/w) < 0.05 UV Absorbance 260nm 1 M < 0.06 1 M UV Absorbance 280nm 5 0.06 1 M < 1 ppm	ICP-MS	< 2 ppm
Appearance (Form) Solubility (Color) Solubility (Turbidity) 200 g plus 300 ml of H2O Solubility (Color) Solubility (Color) Solubility (Color) Solubility (Turbidity) 2.5 g plus 50 ml of CO2-Free H2O (EP) Water (by Karl Fischer) Loss on Drying (EP) Loss on Drying (USP) Initial Melting Point Final Melting Point Final Melting Point V Absorbance 290nm 40% (w/w) UV Absorbance 260nm 1 M UV Absorbance 280nm 1 M Iron (Fe) Clear Colorless Colorles Colorless Colorles Color	(Total: Ag, As, Bi, Cd, Cu, Hg, Mo, Pb, Sb, Sn)	
Solubility (Color) Colorless Solubility (Turbidity) Clear 200 g plus 300 ml of H2O Colorless Solubility (Color) Colorless Solubility (Turbidity) Clear 2.5 g plus 50 ml of CO2-Free H2O (EP) Clear Water (by Karl Fischer) ≤ 0.2 % Loss on Drying (EP) ≤ 0.5 % (Loss on Drying (USP) ≤ 1.0 % Initial Melting Point ≥ 168 °C Final Melting Point Final Melting Point ≤ 172 °C UV Absorbance 290nm	Appearance (Color)	White
Solubility (Turbidity) Clear 200 g plus 300 ml of H2O Colorless Solubility (Turbidity) Clear 2.5 g plus 50 ml of CO2-Free H2O (EP) Clear Water (by Karl Fischer) < 0.2 %	Appearance (Form)	Crystalline Powder
200 g plus 300 ml of H2O Solubility (Color) Colorless Solubility (Turbidity) Clear 2.5 g plus 50 ml of CO2-Free H2O (EP) Water (by Karl Fischer) ≤ 0.2 % Loss on Drying ≤ 0.5 % (EP) Loss on Drying (USP) Initial Melting Point ≥ 168 ℃ Final Melting Point ≤ 172 ℃ UV Absorbance 290nm 40% (w/w) UV Absorbance 260nm 1 M UV Absorbance 280nm 1 M Iron (Fe) ≤ 1 ppm	Solubility (Color)	Colorless
Solubility (Color) Colorless Solubility (Turbidity) Clear 2.5 g plus 50 ml of CO2-Free H2O (EP) Clear Water (by Karl Fischer) ≤ 0.2 % Loss on Drying (EP) ≤ 0.5 % Loss on Drying (USP) ≤ 1.0 % Initial Melting Point ≥ 168 ℃ Final Melting Point ≤ 172 ℃ UV Absorbance 290nm 40% (w/w) ≤ 0.05 UV Absorbance 260nm 1 M ≤ 0.06 1 M UV Absorbance 280nm 5 M 1 M ≤ 0.06 1 M Iron (Fe)	Solubility (Turbidity)	Clear
Solubility (Turbidity) Clear	200 g plus 300 ml of H2O	
2.5 g plus 50 ml of CO2-Free H2O (EP) Water (by Karl Fischer) Loss on Drying (EP) Loss on Drying (USP) Initial Melting Point Final Melting Point V Absorbance 290nm 40% (w/w) UV Absorbance 260nm 1 M UV Absorbance 280nm 1 M Iron (Fe) Initial Melting Point ≤ 0.06 1 ppm	Solubility (Color)	Colorless
Water (by Karl Fischer) ≤ 0.2 % Loss on Drying ≤ 0.5 % (EP) < 1.0 %	Solubility (Turbidity)	Clear
Loss on Drying (EP) Loss on Drying (USP) Initial Melting Point Final Melting Point UV Absorbance 290nm 40% (w/w) UV Absorbance 260nm 1 M UV Absorbance 280nm 1 M Iron (Fe)	2.5 g plus 50 ml of CO2-Free H2O (EP)	
(EP) C Loss on Drying (USP) ≤ 1.0 % Initial Melting Point ≥ 168 ℃ Final Melting Point ≤ 172 ℃ UV Absorbance 290nm 40% (w/w) ≤ 0.05 UV Absorbance 260nm 5 1 M ≤ 0.06 1 M UV Absorbance 280nm 5 280nm 6 5 0.06 1 M ≤ 1 ppm	Water (by Karl Fischer)	≤ 0.2 %
Loss on Drying ≤ 1.0 % (USP) 168 ℃ Initial Melting Point ≥ 168 ℃ Final Melting Point ≤ 172 ℃ UV Absorbance 290nm ≤ 0.05 40% (w/w) ≤ 0.06 1 M UV Absorbance 280nm ≤ 0.06 1 M ≤ 1 ppm	Loss on Drying	≤ 0.5 %
(USP) Initial Melting Point ≥ 168 °C Final Melting Point ≤ 172 °C UV Absorbance 290nm ≤ 0.05 40% (w/w) ≤ 0.06 1 M UV Absorbance 280nm 1 M ≤ 0.06 1 M ≤ 1 ppm	(EP)	
Initial Melting Point ≥ 168 ℃ Final Melting Point ≤ 172 ℃ UV Absorbance 290nm ≤ 0.05 40% (w/w) ≤ 0.06 1 M UV Absorbance 280nm ≤ 0.06 1 M Iron (Fe) ≤ 1 ppm	Loss on Drying	≤ 1.0 %
Final Melting Point ≤ 172 ℃ UV Absorbance 290nm	(USP)	
UV Absorbance 290nm 40% (w/w) UV Absorbance 260nm 1 M UV Absorbance 280nm 1 M Iron (Fe) 0.05 0.06 0.06 I ppm	Initial Melting Point	≥ 168 ℃
40% (w/w) UV Absorbance 260nm 1 M UV Absorbance 280nm 1 M Iron (Fe) Section 2 0.06 2 0.06 4 ppm	Final Melting Point	≤ 172 ℃
UV Absorbance 260nm ≤ 0.06 1 M ≤ 0.06 UV Absorbance 280nm ≤ 0.06 1 M ≤ 1 ppm	UV Absorbance 290nm	< 0.05
1 M UV Absorbance 280nm	40% (w/w)	
UV Absorbance 280nm ≤ 0.06 1 M Iron (Fe) ≤ 1 ppm	UV Absorbance 260nm	< 0.06
1 M Iron (Fe) ≤ 1 ppm	1 M	_
Iron (Fe) \leq 1 ppm	UV Absorbance 280nm	< 0.06
_ ''	1 M	_
_ · ·	Iron (Fe)	< 1 ppm
ICP atomic emission	ICP atomic emission	_

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. 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.



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Product Specification

Product Name:

TEST

Cell Culture Test

Trizma* base - BioPerformance Certified, meets EP, USP testing specifications, suitable for cell culture, ≥99.9% (titration)

Product Number: T6066 CAS Number: 77-86-1

MDL: MFCD00004679
Formula: C4H11NO3
Formula Weight: 121.14 g/mol

 $HO \longrightarrow NH_2$

Specification

	<u> </u>	
рН	10.0 - 11.5	
(5% in water)	10.0 - 11.3	
Titration with H2SO4	> 99.9 %	
(Anhydrous)	_	
Titration with HCI	99.0 - 100.5 %	
(dry basis)		
Identity Test A (USP)	Pass	
Identity Test C (EP)	Pass	
Identity Test B (EP)	Pass	
Identity Test B (USP)	Pass	
Identity Test C (USP)	Pass	
Related Substances	Pass	
Chloride (CI)	< = 100 ppm	
Residue on ignition (Ash)	≤ 0.1 %	
Suitability	Suitable	
Suitable for use in electrophoresis		
DNAse, Exonuclease Detection	None Detected	
NICKase, Endonuclease Detection	None Detected	
RNAse Detection	None Detected	
Protease Detection	None Detected	
Endotoxin Level	< 1 EU/mg	
Total Count Aerobic,	≤ 100 CFU/g	
Yeast, plus Mold		

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Formula: C4H11NO3
Formula Weight: 121.14 g/mol

HO-X-OH HO-NH2

TEST Specification

Residual Solvents Meets Requirements

Based on the knowledge of the manufacturing process there is no potential for the specific solvents to be present. The material, if tested, will comply with the current USP requirements.

Recommended Retest Period ------

6 years

Specification: PRD.7.ZQ5.10000007654

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