


Biological Buffers

Biological Buffers are widely used to maintain the pH within the spectrum of physiological pH range. We offer a variety of buffers, including Tris, which is currently widely used, and HEPES, which has less effect on living organisms.

Buffer Grades

Cost & Quality	Grades	Typical Specifications	Typical Uses
	Biopur	Sterility test, Endotoxin, Nuclease-free	Finest quality for life science
	for biochemistry	Absorbance, Metal	General life science applications
	for molecular biology	Nuclease-free	Molecular biology applications
	Special	Guaranteed reagent items, Absorbance	Cost-effective applications
	Guaranteed reagent	JIS (Japanese Industrial Standards)	General Lab Use

Biological Buffers pH range

Product list

Synonyms	Chemical Name	M.W.	Appearance	pH5	pH6	pH7	pH8	pH9	pH10
Bis-Tris	2,2-Bis(hydroxymethyl)-2,2',2''-nitrilotriethanol	209.24	Crystalline powder	5.7		7.3			
PIPES	Piperazine-1,4-bis(2-ethanesulfonic acid)	302.37	Crystalline powder	6.1		7.5			
MOPS	3-Morpholinopropanesulfonic acid	209.26	Solid		6.5		7.9		
HEPES	N-(2-Hydroxyethyl)piperazine-N'-2-ethanesulfonic acid	238.30	Crystalline powder		6.8		8.2		
Tris	2-Amino-2-hydroxymethyl-1,3-propanediol	121.14	Crystalline powder			7.2		9.0	
AMPD	2-Amino-2-methyl-1,3-propanediol	105.14	Crystalline powder				7.8		9.7
AMP	2-Amino-2-methyl-1-propanol	89.14	Solid or Liquid					9.0	10.5

Synonyms	Chemical Name/Product Name	Grades	Size	Cat.No.
Bis-Tris	2,2-Bis(hydroxymethyl)-2,2',2''-nitrilotriethanol	for molecular biology	25 g	04230-33
PIPES	Piperazine-1,4-bis(2-ethanesulfonic acid)	for molecular biology	100 g	32564-23
MOPS	3-Morpholinopropanesulfonic acid	for molecular biology	100 g	25720-23
HEPES	N-(2-Hydroxyethyl)piperazine-N'-2-ethanesulfonic acid	for molecular biology	100 g	18356-23
Tris	2-Amino-2-hydroxymethyl-1,3-propanediol	Special	500 g	01946-08
		Special	10 kg	01946-84
		for biochemistry	100 g	40326-23
		for biochemistry	500 g	40326-08
		for biochemistry	15 kg	40326-84
		for molecular biology	100 g	40326-24
		Biopur	500 g	40326-09
AMPD	2-Amino-2-methyl-1,3-propanediol	Inquiry	Inquiry	—
AMP	2-Amino-2-methyl-1-propanol	Inquiry	Inquiry	—



Kanto Chemical Co., Inc.

Topic 2-Amino-2-hydroxymethyl-1,3-propanediol

In the biochemistry field, 2-amino-2-hydroxymethyl-1,3-propanediol (Tris) is widely used as a buffer agent. The "Special" grade tested "appearance" and "absorbance (260 nm, 280 nm)," which indicates the optical absorption of nucleic acids and proteins, added to the "guaranteed reagent*" items. This product is designed to provide the balance between quality and cost that is required in research and development in the biochemical field, and to enhance cost performance.

* guaranteed reagent : Guranteed JIS (Japanese Industrial Standards) items. JIS is a Japanese national standard that defines standards and measurement methods for Japanese industrial products.

Special 2-Amino-2-hydroxymethyl-1,3-propanediol

- In addition to the "guranteed reagent" items, "absorbance (260 nm, 280 nm)" and "appearance" items are guaranteed.
- High cost performance with emphasis on the balance between quality and cost.
- Bulk supply available * Please contact us for details.



Grades Comparision

Specification	Special	Guaranteed reagent	for biochemistry
Cat. No.	01946-08 / 01946-84	40326-30 / 40326-00 / 40326-80	40326-23 / 40326-08 / 40326-84
Size	500 g / 10 kg	25 g / 500 g / 15 kg	100 g / 500 g / 15 kg
Purity	min. 99.0 %	min. 99.0 %	min. 99.0%
Appearance	to pass test		
Solubility	to pass test	to pass test	to pass test
Melting point	169 - 173 °C	169 - 173 °C	169 - 173 °C
Absorbance (260 nm)	max. 0.1		max. 0.05
Absorbance (280 nm)	max. 0.08		
Loss of drying	max. 0.5 %	max. 0.5 %	
Water			max. 0.2%
Residue on ignition (sulfate)	max. 0.05 %	max. 0.05 %	max. 0.005 %
pH (0.1 mol/L, 25 °C)	10.0 - 10.8	10.0 - 10.8	
Chloride (Cl)	max. 0.001 %	max. 0.001 %	max. 0.001 %
Sulfate (SO4)	max. 0.001 %	max. 0.001 %	max. 0.001 %
Copper (Cu)	max. 5 ppm	max. 5 ppm	max. 1 ppm
Lead (Pb)	max. 5 ppm	max. 5 ppm	max. 1 ppm
Iron (Fe)	max. 5 ppm	max. 5 ppm	max. 1 ppm
Magnesium (Mg)			max. 1 ppm
Calcium (Ca)			max. 3 ppm
Arsenic (As)			max. 1 ppm
Manganese (Mn)			max. 0.1 ppm

- Please use the products listed in the catalog as reagents (chemicals used for testing or research purpose).
- Product information is subject to change without notice. For the latest information, please have a look at our website "Cica-Web".



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