



Biological Buffers

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Carbohydrates

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Inorganic Salts

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Media and  
Additives

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Proteins and  
Amino Acids



**VWR BIOPROCESSING  
CHEMICALS AND EXCIPIENTS**



## NEW BIOPROCESSING CHEMICALS. MORE PRODUCT SOLUTIONS.

VWR manufactures commercial-scale cGMP biological buffers and biochemicals in addition to providing diverse sourcing capabilities. We can help you meet the increasingly rigorous sourcing and supply chain demands of the life science market.

Our manufacturing, dedicated sales team, and service organization allow us to offer a fully transparent and robust supply chain in a highly regulated market.

For more information on our products, visit [vwr.com](http://vwr.com) or contact your VWR Sales Representative. We can help you meet your total production needs.

### Capabilities:

- Suitable for Bioprocessing and Excipient Use
- BSE/TSE-Free
- Custom Packaging and Testing Available
- Three-Lot Sample Availability
- Standard Pack Sizes for Convenience
- Analytical Laboratory Support
- Regulatory Support
- Management of Change
- Supply Chain Transparency and Audit Support of Raw Materials Manufacturers

### Products:

- **Amino Acids/Derivatives:** Asparagine, L-Asparagine, L-Cystine, L-Glutamine, Hypoxanthine, L-Lysine, L-Tyrosine, and others available upon request
- **Biological Buffers:** HEPES, HEPES Sodium, PIPES, PIPES Sodium, Tromethamine (TRIS), TRIS Hydrochloride, and others available upon request
- **Inorganic Salts:** Ammonium Sulfate, Calcium Chloride, Potassium Phosphate, Sodium Chloride, Sodium Phosphate, Sodium Sulfate, and others available upon request

## VWR Bioprocessing Chemicals and Excipients

Description	CAS No.	Formula	Molecular Weight	Grade	Available Sizes	Cat. No.
<b>Amino Acid Derivatives</b>						
Asparagine, Anhydrous	70-47-3	C <sub>4</sub> H <sub>8</sub> N <sub>2</sub> O <sub>3</sub>	132.12	Bioreagent	100g, 1kg, 5kg, 25kg	VWRB15005
L-Cystine Dihydrochloride	30925-07-6	C <sub>8</sub> H <sub>12</sub> N <sub>2</sub> O <sub>4</sub> S <sub>2</sub> •2HCl	313.23	Bioreagent	100g, 1kg, 5kg, 25kg	VWRB21502
Hypoxanthine Disodium Salt	102-32-9	C <sub>5</sub> H <sub>7</sub> N <sub>4</sub> O•2Na	180.11	Bioreagent	100g, 1kg, 5kg, 25kg	VWRB31608
Hypoxanthine Sodium Salt	45738-97-4	C <sub>5</sub> H <sub>7</sub> N <sub>4</sub> O•Na	158.11	Bioreagent	100g, 1kg, 5kg, 25kg	VWRB31752
L-Lysine Anhydrous	56-87-1	C <sub>6</sub> H <sub>11</sub> N <sub>2</sub> O <sub>2</sub>	146.19	Bioreagent	100g, 1kg, 5kg, 25kg	VWRB42307
L-Tyrosine Disodium Dihydrate	122666-87-9	C <sub>9</sub> H <sub>9</sub> NO <sub>3</sub> Na <sub>2</sub> •2H <sub>2</sub> O	261.19	Bioreagent	100g, 1kg, 5kg, 25kg	VWRB87058
<b>Biological Buffers</b>						
HEPES Free Acid	7365-45-9	C <sub>8</sub> H <sub>18</sub> N <sub>2</sub> O <sub>4</sub> S	238.3	Bioreagent	1kg, 5kg, 25kg	VWRB30487
HEPES Sodium Salt	75277-39-3	C <sub>8</sub> H <sub>17</sub> N <sub>2</sub> O <sub>4</sub> SNa	260.3	Bioreagent	1kg, 5kg, 25kg	VWRB30567
PIPES Free Acid	5625-37-6	C <sub>8</sub> H <sub>18</sub> N <sub>2</sub> O <sub>6</sub> S <sub>2</sub>	302.37	Bioreagent	1kg, 5kg, 25kg	VWRB73007
PIPES Disodium Salt	76836-02-7	C <sub>8</sub> H <sub>16</sub> N <sub>2</sub> O <sub>6</sub> S <sub>2</sub> Na <sub>2</sub>	346.33	Bioreagent	1kg, 5kg, 25kg	VWRB73305
PIPES Sequisodium Salt	100037-69-2	C <sub>16</sub> H <sub>33</sub> N <sub>4</sub> O <sub>12</sub> S <sub>4</sub> •3Na	670.69	Bioreagent	1kg, 5kg, 25kg	VWRB73257
TRIS Hydrochloride	1185-53-1	C <sub>4</sub> H <sub>11</sub> NO <sub>3</sub> HCl	157.6	Bioreagent	1kg, 5kg, 25kg	VWRB85827
Tromethamine (TRIS)	77-86-1	C <sub>4</sub> H <sub>11</sub> NO <sub>3</sub>	121.14	USP, EP, BP, JPC, Endotoxin Tested	500g, 2.5kg, 12kg, 50kg	VWRB497
<b>Carbohydrates</b>						
Dextrose, Anhydrous	50-99-7	C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>	180.16	USP, EP, BP, JP, Endotoxin Tested	1kg, 2.5kg, 12kg, 100lb, 200lb	VWRBK876
<b>Chaotic Agents</b>						
Urea	57-13-6	CH <sub>4</sub> N <sub>2</sub> O	60.06	USP, EP, BP, JP, Endotoxin Tested	500g, 12kg, 50kg	VWRB568
<b>Inorganic Salts</b>						
Ammonium Sulfate	7783-20-2	H <sub>8</sub> N <sub>2</sub> O <sub>4</sub> S	132.14	ACS, NF, Endotoxin Tested	500g, 2.5kg, 12kg, 100kg	VWRB191
Calcium Chloride Dihydrate	10035-04-8	CaCl <sub>2</sub> •2H <sub>2</sub> O	147.02	USP, EP, BP, JP, Endotoxin Tested	1kg, 12kg	VWRB556
Potassium Phosphate Monobasic, Anhydrous	7778-77-0	KH <sub>2</sub> PO <sub>4</sub>	136.09	NF, EP, BP, Endotoxin Tested	1kg, 12kg	VWRB0781
Sodium Carbonate Anhydrous	497-19-8	Na <sub>2</sub> CO <sub>3</sub>	105.99	NF/EP/BP/JP/Endotoxin Tested	2.5KG, 12KG	VWRB585
Sodium Carbonate Monohydrate	5968-11-6	Na <sub>2</sub> CO <sub>3</sub> •H <sub>2</sub> O	124	NF/EP/BP/Endotoxin Tested	2.5KG, 12KG	VWRB427
Sodium Chloride	7647-14-5	NaCl	58.44	USP, EP, BP, JP, Endotoxin Tested	1kg, 2.5kg, 12kg, 50kg, 350lb	VWRB241
Sodium Hydroxide Pellets	1310-73-2	NaOH	40	NF/EP/BP/JP	1KG, 12KG	VWRB583
Sodium Phosphate Dibasic, Anhydrous	7558-79-4	Na <sub>2</sub> HPO <sub>4</sub>	141.96	USP, EP, Endotoxin Tested	1kg, 12kg	VWRB0404
Sodium Phosphate Dibasic Dihydrate	10028-24-7	Na <sub>2</sub> HPO <sub>4</sub> •2H <sub>2</sub> O	177.99	USP/BP/EP/Endotoxin Tested	1KG, 12KG	VWRB709
Sodium Phosphate Dibasic, Heptahydrate	7782-85-6	Na <sub>2</sub> HPO <sub>4</sub> •7H <sub>2</sub> O	268.07	ACS, USP, Endotoxin Tested	1kg, 12kg	VWRB0348
Sodium Phosphate Monobasic, Monhydrate	10049-21-5	Na <sub>2</sub> HPO <sub>4</sub> •H <sub>2</sub> O	137.99	ACS, USP, BP, Endotoxin Tested	1kg, 12kg	VWRB0823
Sodium Sulfate, Anhydrous	7757-82-6	Na <sub>2</sub> SO <sub>4</sub>	142.04	USP, EP, Endotoxin Tested	500g, 2.5kg, 12kg, 100kg	VWRB836



# VWR BIOPROCESSING SOLUTIONS

## ENABLING YOUR PROCESS WITH INNOVATIVE CHOICE

VWR has solutions to address your needs as you manufacture your biologic of interest during upstream, downstream and final fill steps.

Achieving maximum cell density and productivity goals in your bioreactor, capturing and purifying the desired protein, and dispensing the formulated protein in its patient-ready configuration are not mutually exclusive objectives. Each stage of bioprocessing is influenced by the steps preceding it.

VWR's team of industry and technical experts understand these holistic influences and can help identify solutions that will meet your needs through product choice, operational excellence, and differentiated services.



### PRODUCT CHOICE

- Unbiased Selection
- Evolving & Expanding Catalog
- Raw, Direct & Indirect Materials
- Process-Focused Solutions



### OPERATIONAL EXCELLENCE

- Global Reach with cGDP-Certified Warehouses & cGMP Manufacturing Facilities
- Dedicated Critical Materials Management Resources
- Enhanced Customer Analytics
- Sourcing & Management to Mitigate Risk



### DIFFERENTIATED SERVICES

- Custom Chemical Manufacturing that Scales to Your Needs
- Single-Use Solutions
- **VWRCATALYST** Facility Support
- Customized Technology Solutions