

# Technical Note



## Customize Dissolution Media Volumes Utilizing J.T.Baker® DILUT-IT™ Dissolution Media Concentrates

From time to time, a different or unique final volume of media is needed during your dissolution work. Avantor Performance Materials has provided these technical guidelines for reference while using our J.T.Baker DILUT-IT dissolution media concentrates. This technical note will provide you with two options that can be referenced to achieve your desired final volume of dissolution media quickly and easily.

### Customized Dissolution Media By Volume

#### Media Dilution Table

Buffer Concentrates	500 ml	1 l	10 l
Salts/ Hydrochloric Acid	19.2 ml	38.5 ml	384.6 ml
Sodium Dodecyl Sulphate (SDS)	33.3 ml	66.6 ml	666.0 ml

Follow the salt/acid recipes listed above for the concentrates and dilute media to final volume with purified water.

\* Note use the SDS recipes for the SDS products

\* Note you still need to dilute to a final volume, not weight with water.

J.T.Baker DILUT-IT dissolution media concentrates are available in four different bottle sizes (250 ml, 500 ml, 1 l, and 2 l) to accommodate varying dissolution testing needs. The following table provides a complete list of available J.T.Baker DILUT-IT dissolution media concentrates which contains the densities of the solutions to convert to weight by simply multiplying the density by the appropriate volume:

### Composition of Avantor Dissolution Media

#### Potassium Phosphate Buffers (0.05M in dilute state)

Product	Code #	Conc. factor	Density, g/ml 25°C	KH <sub>2</sub> PO <sub>4</sub> g/l	NaOH g/l
pH 5.8	BD012	26 ×	1.1170	176.9	3.74
pH 6.0	BD013	26 ×	1.1190	176.9	5.83
pH 6.8	BD014	26 ×	1.1357	176.9	23.29
pH 7.2	BD015	26 ×	1.1494	176.9	36.08
pH 7.4	BD019	26 ×	1.1525	176.9	40.66
pH 7.5	BD016	26 ×	1.1553	176.9	42.63

#### Sodium Phosphate Buffer (0.05M in dilute state)

Product	Code #	Conc. factor	Density, g/ml 25°C	NaH <sub>2</sub> PO <sub>4</sub> ·H <sub>2</sub> O g/l	NaOH g/l
pH 6.8	BD021	26 ×	1.1473	179.4	23.22

#### Sodium Acetate Buffer (0.05M in dilute state)

Product	Code #	Conc. factor	Density, g/mL 25°C	CH <sub>3</sub> COONa · 3H <sub>2</sub> O g/l	Acetic Acid g/l
pH 4.5	BD017	26 ×	1.0262	77.74	43.716

#### Hydrochloric Acid

Product	Code#	Conc. factor	Density, g/ml 25°C	HCl g/L
0.01 N	BD010	26 ×	1.0027	9.48
0.1 N	BD011	26 ×	1.0431	94.80

#### Sodium Lauryl Sulfate (0.5 % (w/v) in dilute state)

Product	Code#	Conc. factor	Density, g/ml 25°C	SLS (SDS)* g/L
0.5 %	BD018	15 ×	1.0072	75.00

\*(Sodium Dodecyl Sulfate)

#### Simulated Gastric Fluid

Product	Code#	Conc. factor	Density, g/ml 25°C	NaCl g/l	NaOH g/l
SGF	BD020	26 ×	1.0650	52	69.056

Note 1: All weights mentioned above are calculated based on the pure chemicals.  
Note 2: No preservatives are added to any of these concentrate solutions.



Phillipsburg, NJ 9001:2008 & 14001:2004  
Paris, KY 9001:2008  
Mexico City, Mexico 9001:2008  
Deventer, Holland 9001:2008 & 14001:2004  
Selangor, Malaysia 9001:2008

## About Avantor™ Performance Materials

Avantor Performance Materials manufactures and markets high-performance chemistries and materials around the world under several respected brand names, including the J.T.Baker®, Macron™, Rankem™, Diagonova™ and POCH™ brands.

Avantor products are used in a wide range of industries. Our biomedical and life science solutions are used in academic, industry and quality control laboratories for research, pharmaceutical production and medical lab testing, while our electronics solutions are used in the manufacturing of semiconductors, photovoltaic cells and flat panel displays. Based in Center Valley, Pennsylvania (USA), Avantor is owned by an affiliate of New Mountain Capital, LLC.

For additional information please visit [www.avantormaterials.com](http://www.avantormaterials.com) or follow [www.twitter.com/avantor\\_news](http://www.twitter.com/avantor_news)



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*Our Web site features ASK Avantor™ which includes live chat capabilities with customer service representatives.*

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