



MICROCENTRIFUGE TUBES

MBP •

SECTION

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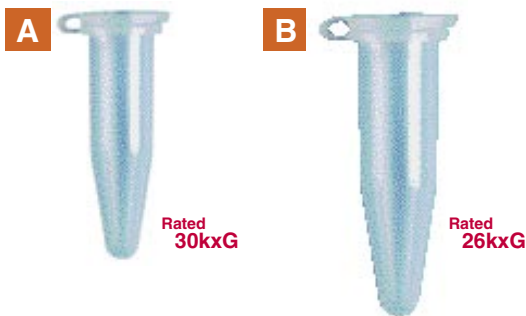
Index	Product	Page
1	Snap-cap centrifuge tubes	87
2	Locking lid centrifuge tubes	88
3	Screw-cap microcentrifuge tubes – conical	89
4	Screw-cap microcentrifuge tubes – freestanding	90
5	Caps and Closures	91
6	Microtiter tubes	92
7	Specialty tubes	93
a.	0.25 tube w/cap	93
b.	0.4 tube w/cap	93
c.	Capless tubes	93

## A CRITICAL COMPONENT IN LIQUID HANDLING

Often when referring to liquid handling in the life-science laboratory, our discussions focus solely on pipet tips and pipettors and their precision and accuracy in delivering a sample. But, what about your reagent and reaction vessels? You almost never hear a discussion on that subject. The fact is that your microcentrifuge tubes are usually the central element in your experiments. Not only are your reagents stored in them, your experiments take place in them, and then your results may be stored in them.

Manufacturing expertise and quality design that understands the technical applications is as important in producing microcentrifuge tubes as it is in producing pipet tips and pipettors. Material selection, wall-thickness, cap-to-tube interface, and thread-configuration will vary drastically depending on the specifically designed purpose and ultimate use of the tube. Within this section you will find a large variety of microcentrifuge tubes designed to meet your specific needs. Whether you require a transport vessel, a tube to withstand boiling or deep-freezing, or simply a tube whose lid can be opened easily with one hand, you will find it in this section of the catalog.

All of the HydroLogix microcentrifuge tubes in this catalog have been manufactured under the same stringent quality standards applied to our ART brand pipet tips. All tubes are certified RNase/DNase, RNA/DNA, ATP, and Pyrogen free, and we believe that there are no tubes better suited for the everyday rigors of the laboratory environment. We invite you to sample these tubes for free and see for yourself.



### DESIGNED TO PROTECT THE INTEGRITY OF YOUR PRODUCT

- Quality Guarantee
- 4ml Puncture Proof Bag
- ZipLock™ closure for easy resealing
- 10 Individually sealed bags of tubes helps protect against cross contamination

## SNAP-CAP CENTRIFUGE TUBES

Catalog Number	Product	Description	Unit packaging	
0.6ml Microcentrifuge Tubes Plain w/Flat Cap no frosting or graduations				
<b>A</b>	▶ 3439	0.6ml MCT with Flat Cap	Clear, pre-sterilized	10 bags of 100 tubes
	3439 A	0.6ml MCT with Flat Cap	Assorted, pre-sterilized	10 bags of 100 tubes
	▶ 3440	0.6ml MCT with Flat Cap	Clear, non-sterile	10 bags of 100 tubes
	3440 A	0.6ml MCT with Flat Cap	Assorted, non-sterile	10 bags of 100 tubes
1.5ml Microcentrifuge Tubes Plain w/Flat Cap no frosting or graduations				
<b>B</b>	▶ 3443	1.5ml MCT with Flat Cap	Clear, pre-sterilized	10 bags of 50 tubes
	3443 A	1.5ml MCT with Flat Cap	Assorted, pre-sterilized	10 bags of 50 tubes
	▶ 3444	1.5ml MCT with Flat Cap	Clear, non-sterile	10 bags of 50 tubes
	3444 A	1.5ml MCT with Flat Cap	Assorted, non-sterile	10 bags of 50 tubes
▶ Colors: Specify desired color by adding the corresponding letter to the catalog number B-Blue, G-Green, O-Orange, R-Red, Y-Yellow, A-Assorted				

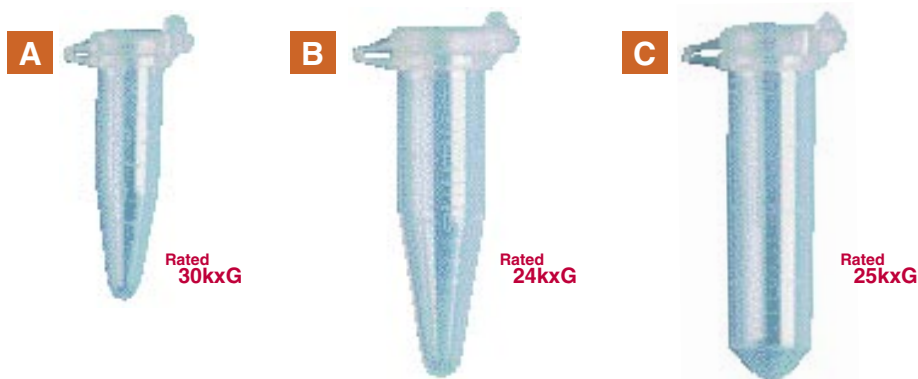
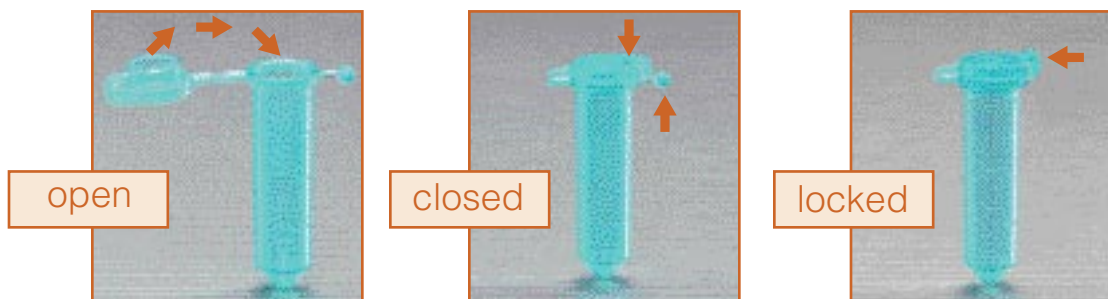


## SNAP-CAP CENTRIFUGE TUBES

Catalog Number	Product	Description	Unit packaging	
0.6ml Graduated Microcentrifuge Tubes w/Frosted Flat Cap and Side				
<b>C</b>	3446	0.6ml Graduated MCT with Flat Cap	Clear, non-sterile	10 bags of 100 tubes
	3449	0.6ml Graduated MCT with Flat Cap	Clear, pre-sterilized	10 bags of 100 tubes
1.5ml Graduated Microcentrifuge Tubes w/Frosted Flat Cap and Side				
<b>D</b>	3448	1.5ml Graduated MCT with Flat Cap	Clear, non-sterile	10 bags of 50 tubes
	3451	1.5ml Graduated MCT with Flat Cap	Clear, pre-sterilized	10 bags of 50 tubes
2.0ml Graduated Microcentrifuge Tubes w/Frosted Flat Cap and Side				
<b>E</b>	3434	2.0ml Graduated MCT with Flat Cap	Clear, non-sterile	10 bags of 50 tubes
	3453	2.0ml Graduated MCT with Flat Cap	Clear, pre-sterilized	10 bags of 50 tubes
Colors: Specify desired color by adding the corresponding letter to the catalog number B-Blue, G-Green, O-Orange, R-Red, Y-Yellow, A-Assorted				

## GRADUATED MICROCENTRIFUGE TUBES WITH SAFELOCK CAP

If you are looking for a superior locking cap, MBP's graduated microcentrifuge tubes with our exclusive 'SafeLock' cap will become your tube of choice. These tubes feature an advanced locking system for safe and convenient centrifuging, boiling, freezing, incubation, or storage of samples for your most critical procedures. Only MBP's 'SafeLock' can offer the same sample security as found with regular screw-cap tubes yet maintain the same ease of use as a standard snap-cap. The cap snaps closed, then the lock easily slips into place with one simple hand operation. The larger, rounder cap design provides more thumb contact while the smooth surface reduces the possibility of ripped or punctured gloves.



### LOCKING LID CENTRIFUGE TUBES

Catalog Number	Product	Description	Unit Packaging
<b>0.6ml Graduated Microcentrifuge Tubes w/Safelock Frosted Cap and Side</b>			
<b>A</b> 3454	0.6ml Graduated MCT with Safelock Cap	Clear, non-sterile	10 bags of 100 tubes
3455	0.6ml Graduated MCT with Safelock Cap	Clear, pre-Sterilized	10 bags of 100 tubes
3455IW	0.6ml Graduated MCT with Safelock Cap	Clear, Individually Wrapped pre-sterilized	500 tubes
<b>1.5ml Graduated Microcentrifuge Tubes w/Safelock Frosted Cap and Side</b>			
<b>B</b> 3456	1.5ml Graduated MCT with Safelock Cap	Clear, non-sterile	10 bags of 50 tubes
3457	1.5ml Graduated MCT with Safelock Cap	Clear, pre-sterilized	10 bags of 50 tubes
3457IW	1.5ml Graduated MCT with Safelock Cap	Clear, Individually Wrapped pre-sterilized	500 tubes
<b>2.0ml Graduated Microcentrifuge Tubes w/Safelock Frosted Cap and Side</b>			
<b>C</b> 3458	2.0 Graduated MCT with Safelock Cap	Clear, non-sterile	10 bags of 50 tubes
3459	2.0 Graduated MCT with Safelock Cap	Clear, pre-sterilized	10 bags of 50 tubes
3459IW	2.0 Graduated MCT with Safelock Cap	Clear, Individually Wrapped pre-sterilized	500 tubes

Colors: Specify desired color by adding the corresponding letter to the catalog number  
 B-Blue, G-Green, O-Orange, R-Red, Y-Yellow, A-Assorted

## CONICAL AND FREE-STANDING MICROCENTRIFUGE TUBE WITH SCREW-CAP & O-RING

These first-class conical microcentrifuge tubes are made from a crystal clear resin that easily allows you to view your samples. Made from the highest quality polypropylene, these tubes are suitable for vapor phase liquid nitrogen storage, boiling, and autoclaving and are sturdy enough to withstand centrifugation of 20,000 x G. External ribs on the free-standing tubes position and lock the tubes into place in racks with serrated holes allowing for single-handed opening and closing. Conical bottoms allow for more complete sample retrieval while our superior O-ring design forms a positive seal against the rim of the screw-cap to guard against leakage. These popular conical and free-standing tubes are available in 0.5ml, 1.5ml, and 2.0ml sizes. Available in clear or in an amber color for light-sensitive applications, these tubes are free of RNase, DNase, and endotoxins.



### WHAT IS THE DIFFERENCE BETWEEN RPM AND RCF(xG) WITH REGARD TO TUBES?

RPM stands for "Revolutions per minute." The rotor, regardless of its size, is revolving at that rate. The force applied to the contents varies by the size of the centrifuge rotor. RCF (relative centrifugal force) is measured in force x gravity, or g-force. This is the force exerted on the contents of the rotor, resulting from the revolutions of the rotor. It is RCF, not RPM that separates aqueous solutions in the centrifuge. RCF can be calculated for any centrifuge by this equation:  $RCF = (1.118 \times 10^{-5})(r)(RPM)^2$  (where "r" is the radius of the rotor in cm).

### SCREW-CAP MICROCENTRIFUGE TUBES - CONICAL

Catalog Number	Product	Description	Unit Packaging
<b>0.5ml Conical Microcentrifuge Tube w/Screw-Cap</b>			
<b>A</b> 3460	0.5ml Conical MCT with Screw-Cap & O-Ring, Unattached	Clear, non-sterile	10 bags of 50 tubes
3460A	0.5ml Conical MCT with Screw-Cap & O-Ring, Unattached	Amber, non-sterile	10 bags of 50 tubes
3431	0.5ml Conical MCT with Screw-Cap & O-Ring, Attached	Clear, pre-sterilized	10 bags of 50 tubes
3431A	0.5ml Conical MCT with Screw-Cap & O-Ring, Attached	Amber, pre-sterilized	10 bags of 50 tubes
3462	0.5ml Conical MCT w/out Cap	Clear, non-sterile	10 bags of 50 tubes
<b>1.5ml Conical Microcentrifuge Tube w/Screw-Cap</b>			
<b>B</b> 3464	1.5ml Conical MCT with Screw-Cap & O-Ring, Unattached	Clear, non-sterile	10 bags of 50 tubes
3464A	1.5ml Conical MCT with Screw-Cap & O-Ring, Unattached	Amber, non-sterile	10 bags of 50 tubes
3461	1.5ml Conical MCT with Screw-Cap & O-Ring, Attached	Clear, pre-sterilized	10 bags of 50 tubes
3461A	1.5ml Conical MCT with Screw-Cap & O-Ring, Attached	Amber, pre-sterilized	10 bags of 50 tubes
3466	1.5ml Conical MCT w/out Cap	Clear, non-sterile	10 bags of 50 tubes
<b>2.0ml Conical Microcentrifuge Tube w/Screw-Cap</b>			
<b>C</b> 3468	2.0ml Conical MCT with Screw-Cap & O-Ring, Unattached	Clear, non-sterile	10 bags of 50 tubes
3468A	2.0ml Conical MCT with Screw-Cap & O-Ring, Unattached	Amber, non-sterile	10 bags of 50 tubes
3463	2.0ml Conical MCT with Screw-Cap & O-Ring, Attached	Clear, pre-sterilized	10 bags of 50 tubes
3463A	2.0ml Conical MCT with Screw-Cap & O-Ring, Attached	Amber, pre-sterilized	10 bags of 50 tubes
3470	2.0ml Conical MCT w/out Cap	Clear, non-sterile	10 bags of 50 tubes

ORDER colored caps separately. See screw-cap page of this section.



Rated  
30kxG



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18kxG



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## SCREW-CAP MICROCENTRIFUGE - FREESTANDING

Catalog Number	Product	Description	Unit packaging
<b>0.5ml Free-standing MC Tube with Screw-Cap</b>			
<b>A</b> 3472	0.5ml Freestanding MCT with Screw-Cap & O-Ring, Unattached	Clear, non-sterile	10 bags of 50 tubes
3472A	0.5ml Freestanding MCT with Screw-Cap & O-Ring, Unattached	Amber, non-sterile	10 bags of 50 tubes
3465	0.5ml Freestanding MCT with Screw-Cap & O-Ring, Attached	Clear, pre-sterilized	10 bags of 50 tubes
3465A	0.5ml Freestanding MCT with Screw-Cap & O-Ring, Attached	Amber, pre-sterilized	10 bags of 50 tubes
3422	0.5ml Freestanding MCT w/out Cap	Clear, non-sterile	10 bags of 50 tubes
<b>1.5ml Freestanding MC Tube with Screw-Cap</b>			
<b>B</b> 3474	1.5ml Freestanding MCT with Screw-Cap & O-Ring, Unattached	Clear, non-sterile	10 bags of 50 tubes
3474A	1.5ml Freestanding MCT with Screw-Cap & O-Ring, Unattached	Amber, non-sterile	10 bags of 50 tubes
3467	1.5ml Freestanding MCT with Screw-Cap & O-Ring, Attached	Clear, pre-sterilized	10 bags of 50 tubes
3467A	1.5ml Freestanding MCT with Screw-Cap & O-Ring, Attached	Amber, pre-sterilized	10 bags of 50 tubes
3478	1.5ml Freestanding MCT w/out Cap	Clear, non-sterile	10 bags of 50 tubes
<b>2.0ml Freestanding MC Tube with Screw-Cap</b>			
<b>C</b> 3488	2.0ml Freestanding Graduated MCT with Screw-Cap & O-Ring, Unattached	Clear, non-sterile	10 bags of 50 tubes
3488A	2.0ml Freestanding Graduated MCT with Screw-Cap & O-Ring, Unattached	Amber, non-sterile	10 bags of 50 tubes
3469	2.0ml Freestanding Graduated MCT with Screw-Cap & O-Ring, Attached	Clear, pre-sterilized	10 bags of 50 tubes
3469A	2.0ml Freestanding Graduated MCT with Screw-Cap & O-Ring, Attached	Amber, pre-sterilized	10 bags of 50 tubes
3490	2.0ml Freestanding Graduated MCT w/out Cap	Clear, non-sterile	10 bags of 50 tubes
ORDER colored caps separately see screw-cap page of this section.			



## SCREW-CAPS: O-RING & PLUG CLOSURES

MBP's special O-ring screw cap is manufactured from autoclavable polyethylene and polypropylene which forms a positive seal against the rim of the tube to ensure against leakage even under the most demanding conditions. Available in a variety of colors, these screw caps adapt to both your everyday and critical scientific experiments.

MBP's plug caps are ideal for routine laboratory analysis and procedures. The low-density polyethylene plug caps are the perfect match to MBP's capless microcentrifuge tubes. Available in a size that accommodates both 1.5ml and 2.0ml capless tubes, they are perfect for collecting fractions and mixing reagents. These plug closures are not autoclavable.



### CAPS FOR MICROCENTRIFUGE TUBES

**A**

Catalog Number	Product	Description	Unit Packaging
Screw-Cap w/O-ring for Microcentrifuge Tubes			
3471	Screw-Cap with O-Ring	Natural, non-sterile	10 bags of 50 caps
3471R	Screw-Cap with O-Ring	Red, non-sterile	10 bags of 50 caps
3471O	Screw-Cap with O-Ring	Orange, non-sterile	10 bags of 50 caps
3471B	Screw-Cap with O-Ring	Blue, non-sterile	10 bags of 50 caps
3471G	Screw-Cap with O-Ring	Green, non-sterile	10 bags of 50 caps
3471Y	Screw-Cap with O-Ring	Yellow, non-sterile	10 bags of 50 caps
3471A	Screw-Cap with O-Ring	Amber, non-sterile	10 bags of 50 caps

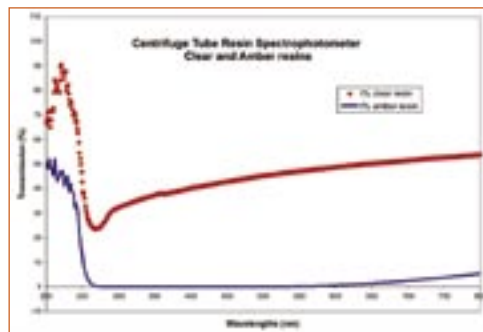
**B**

Plug Closures			
3475	Plug Closures for 1.5ml & 2.0ml Capless MCT	White, non-sterile	10 bags of 100 caps

### THE AMBER ADVANTAGE

AMBER tubes are available in all sizes both Conical and Free Standing, so when you are working with light sensitive applications you can rely on HLT branded Amber tubes to block out that destructive light keeping your sensitive samples protected.

On the graph below both resins, amber and clear, transmit UV light starting at about 200 nm to 270 nm. The clear resin transmits light throughout the 200 to 800 nm range, however the amber resin had virtually 0% transmission from 270 to 600 nm. Amber resin UV light transmission slightly increases from 0% to only 5% when approaching the 600 to 800 nm range.



The graph was generated by using a spectrophotometer on a blank slide with the resins compressed to less than the thickness of paper.



## MICROTITER TUBE SYSTEMS

MBP's line of MicroTiter tubes supplies you with benefits other companies can't match. Each MicroTiter tube system is available pre-racked in an 8x12 format and can be autoclaved, sealed, and frozen for storage. These tubes offer additional volume capacity for sample dilution and/or mixing prior to procedures such as HTLV-III testing, RIA, EIA, PCR, pharmaceutical quality control, blood bank sample freezer storage, or transport of specimens and reagents. With frosted writing areas on each tube, identification and organization are simplified. Available in bulk packaging, or in a robotic workstation-compatible tip rack, these microtiter tubes can be easily integrated into experiments on your Beckman, Tecan, Tomtec or other automated liquid handling workstations. A low density Polyethylene Cap strip is used to seal these tubes. They can be used with rows of tubes or easily cut apart for individual samples. They are available non-sterilized or pre-sterilized as the material will not withstand autoclaving. Only MBP can bring such innovation to your ever-evolving technical needs.



### MICROTITER TUBES

Catalog Number	Product	Description	Unit Packaging
<b>1.2ml MicroTiter Tube</b>			
<b>A</b> 3496	1.2ml MicroTiter Tube, Robotic Rack	Clear, non-sterile	96 tubes/tray 10 trays/pack
3487	1.2ml MicroTiter Tube, Robotic Rack	Clear, pre-sterilized	96 tubes/tray 10 trays/pack
3492	1.2ml MicroTiter Tube Bulk	Clear, non-sterile	1000 tubes
<b>1.2ml MicroTiter Tube Frosted</b>			
<b>B</b> 3489	1.2ml Frosted MicroTiter Tube, Robotic Rack	Clear, pre-sterilized	96 tubes/tray 10 trays/pack
3424	1.2ml Frosted MicroTiter Tube, Robotic Rack	Clear, non-sterile	96 tubes/tray 10 trays/pack
3498	1.2ml Frosted MicroTiter Tube Bulk	Clear, non-sterile	1000 tubes
<b>MicroTiter Cap Strips - Non Autoclavable</b>			
<b>C</b> 3426	8 Cap Strips	Nature, non-sterile	10 bags of twelve 8 Cap Strips
3425	8 Cap Strips	Nature, pre-sterilized	10 bags of twelve 8 Cap Strips





## SPECIALTY MICROCENTRIFUGE TUBES

Our small-volume, specialty, microcentrifuge tubes are dedicated for lesser sample sizes, and offer a unique combination of quality and features that make this the small-volume-protocol tube of choice. MBP's 0.4ml and 0.25ml size microcentrifuge tubes have an attached snap-seal closure that provides a leak-tight seal. Specially formulated translucent low-density polyethylene provides an excellent view of sample contents, and makes the 0.4ml tube material much softer and easier to cut for pellet removal. These tubes feature a nonwetable surface and smooth interior to aid in complete sample removal and recovery. Choose MBP for all of your specialty experiment needs.

Rated  
30kxG



### SPECIALTY TUBES

	Catalog Number	Product	Description	Unit Packaging
<b>A</b>	3483	0.25ml Polypropylene Tube & Cap	Clear, non-sterile	10 bags of 100 Tubes
<b>B</b>	3485	0.4ml Polyethylene Tube & Cap	Clear, non-sterile, non-autoclavable	10 bags of 100 Tubes

## CAPLESS, GRADUATED MICROCENTRIFUGE TUBES

MBP's capless clear graduated microcentrifuge tubes offer the same superior quality, crystal-clear polypropylene as our microtubes with caps, but these offer the versatility for those experiments where caps are not needed and storage is not required. The tube has an ultra-smooth bottom that allows for 100% visibility and full sample recovery. The tube also comes with graduations and a frosted, side-area for writing.



### CAPLESS, GRADUATED MICROCENTRIFUGE TUBES

	Catalog Number	Product	Description	Unit Packaging
<b>C</b>	3479	1.5ml Graduated MCT, Capless	Natural, non-sterile	10 bags of 100 Tubes

Use Cap Closure #3475 for the 1.5 and Capless Tubes.