# **Screw Cap Micro Tubes**

Transport, storage and sample preparation











## Screw cap micro tubes

When SARSTEDT introduced the screw cap micro tube about 40 years ago, it established a new worldwide laboratory standard. These tubes are now indispensable in modern research and diagnostics.

The exceptionally secure screw cap with O-ring seal in conjunction with the robust polypropylene tube makes the screw cap micro tube a versatile piece of equipment. They are ideal for centrifugation, transport, and storage of high-quality oligonucleotides, enzymes, and buffers.

With filling volumes of 0.5 ml to 2.0 ml, a range of configurations and sealing options, and four high quality purity grades, SARSTEDT screw cap micro tubes meet all of your micro volume requirements.

Your Sarstedt Jeam



## SARSTEDT quality seal for laboratory products

Clean room conditions, skilled personnel in protective clothing, and automatic production processes are the prerequisites for the certified SARSTEDT quality standards 'PCR Performance Tested' and 'Biosphere® plus'.

Since 1995 we have offered our customers product qualities tailored to their needs and for the highest level of reproducibility in their analyses. Our certifications are continually adjusted to meet research requirements.

The Biosphere<sup>®</sup> plus quality standard ensures no false-positive results in DNA analysis and in forensic and diagnostics. Our PCR Performance Tested quality items are particularly suitable for the storage of PCR reagents, buffers, and plasmids.

Routine testing by an independent laboratory confirms that the extremely low threshold limit values are upheld. Corresponding certifications can be found on our website for each batch.



#### PCR Performance Tested quality • The SARSTEDT quality and purity standard

'PCR Performance Tested' was specifically created for labwork with nucleic acids (e.g. qPCR, PCR, purification, and storage). This quality classification provides assurance that SARSTEDT consumables can be used directly in nucleic acid analytics.

**PCR Performance Tested** - items meet the following purity criteria, which are certified by an independent laboratory:

✓ DNA-free ✓ Free from DNase and RNase ✓ PCR inhibitor-free

We guarantee compliance with the following limit values:

Human DNA <0.5 pg/µl  $\cdot$  Bacterial DNA <0.02 pg/µl  $\cdot$  DNase <1x10^5 U/µl RNase <1x10^9 Kunitz units/µl

Subject to technical modifications.

#### Biosphere® plus quality • Added assurance

Scientific analysis methods have become increasingly more sensitive in recent year so that even individual molecules can be detected. Subsequently, consumables must be free from even the slightest contamination. The Biosphere® plus purity standard was developed for the highest possible protection against any contamination.

In addition to ultra-pure production conditions, all Biosphere<sup>®</sup> plus certified products undergo a validated decontamination procedure to ensure limit values significantly lower than our PCR Performance Tested quality. Biosphere<sup>®</sup> plus items are also free from ATP and are pyrogen-free/endotoxin-free and sterile in accordance with ISO 11135.

Biosphere® plus items meet the following purity criteria, which are certified by an independent laboratory::

✓ Sterile	🗸 D
PCR inhibitor-free	🗸 A

NA-free

- ✓ Free from DNase and RNase
- ✓ pyrogen-free/endotoxin-free

We guarantee compliance with the following limit values:

Human DNA <0.5 fg/µl · Bacterial DNA <0.2 fg/µl · DNase <5x10<sup>-7</sup> U/µl RNase <5x10<sup>-11</sup> Kunitz units/µl · ATP <1x10<sup>-12</sup> mmol/µl · Pyrogens <0.002 EU/ml Sterility validated according to ISO 11135

Subject to technical modifications.





#### Three volumes - universal application

Available in three different volumes and with clearly printed graduations, SARSTEDT screw cap micro tubes are ideal for filling requirements from a few microliters up to 2 milliliters.

While 0.5 ml screw cap micro tubes reduce sample loss caused by evaporation, 2.0 ml vessels are ideal for storing buffers, loading solutions, media, or other higher volume reagents.

Thanks to their compact dimensions, they can also be used in microcentrifuges and are compatible with most racks and storage systems.

#### Secure closure - maximum reliability

The precise thread and the flexible O-ring ensure exceptionally secure sealing of our screw cap micro tubes. They are therefore suitable for use with radioactive, infectious and expensive substances, as a reaction vessel under thermal load, or for long-term storage.

#### Practical knurls – easy handling

The coordinated system of tubes with circumference knurls and matching gripper racks with notched apertures allows for one-handed cap assembly and removal. This convenient handling is particularly useful in applications where contact with the sample is not permitted, as with infectious or radioactive substances.

#### Color coding - individual identification

Screw caps and loop cap inserts in different colors offer a wide range of colorcoding organization options for the allocation of reagents in routine applications, kits, and storage.



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## Versatile for routine work and research

#### Top product features:

- Caps and tubes made from the same robust polypropylene streamlined validation
- Centrifugation up to 20,000 x g (tested at 20°C for 20 minutes in a fixed-angle rotor, filled at nominal volume)
- Autoclavable screw cap micro tubes and caps can be autoclaved at  $121\,^{\circ}\mathrm{C}$
- Leak-resistant according to ADR & IATA all screw cap micro tubes are tested at a vacuum of 0.95 bar
- Stable skirted base free-standing on the laboratory bench without a rack
- Circumference knurls one-handed cap handling when locked into the corresponding gripper rack

Due to diverse applications and customer-specific requirements for analysis or filling, SARSTEDT offers a wide range of tube and cap variations.

- With print the large writing block allows for clear labeling, the graduations facilitate rapid volume estimation
- Without print the transparent polypropylene facilities precise sample inspection
- Without knurls the large area is ideal for adhesive labels
- Small packaging units Biosphere<sup>®</sup> plus quality screw cap micro tubes are packaged 25 pieces per practical bag and 250 pieces per compact case
- Attached loop cap the retaining loop cap ensures the safe allocation of the lid to the tube during use, eliminating cap mix-ups





### Low binding screw cap micro tubes - minimal sample loss

As the trend continues towards smaller volumes, it is increasingly important to minimize any interactions between the analytes and the tubes used. SARSTEDT has therefore developed screw cap micro tubes and reaction tubes that ensure a maximum recovery rate and are specially optimized for the requirements of protein and DNA analytics. Minimizing sample loss – especially for costly and valuable reagents – is essential to reduce costs, achieve accurate analysis results, and ensure secure storage over a long period of time.

Special high-quality plastics are used for SARSTEDT low binding vessels. A repellent coating, for example with silicone, which could falsify the analyses is not necessary due to the special materials.

Advantages of the low binding screw cap micro tubes:

- · Special polypropylene minimal binding, maximum recovery, minimal loss
- Certified PCR Performance Tested quality DNA, DNase/Rnase and PCR inhibitor free
- Practical, small packaging units 100 pieces in a minigrip bag for reduced contamination risk

#### Low DNA binding - minimal DNA loss

Low DNA binding screw cap micro tubes are suitable for all applications where DNA is used. For example, they can be used for the storage of plasmids, oligonucleotides or cell extracts and allow for maximum DNA yield, even after long storage times and at the smallest volumes.

#### Low protein binding – minimal protein loss

Low protein binding screw cap micro tubes are particularly suitable for the storage, filling, and analysis of antibodies, enzymes, and other valuable substances both in the field of proteomics and in many other routine applications. Low protein binding to the vessel wall ensures maximum recovery, improved analysis, and clearer results.

#### Ordering information – Low binding screw cap micro tubes

Order no.	Low-binding	Volume	Packaging: bag/inner box/case
72.703.600	Protein	1.5 ml	100/500/1,000
72.703.700	DNA	1.5 ml	100/500/1,000
72.694.600	Protein	2.0 ml	100/500/1,000
72.694.700	DNA	2.0 ml	100/500/1,000



#### Screw cap micro tubes without print

Screw cap micro tubes without print allow for accurate visual inspection of the sample through the transparent polypropylene. Options without knurls are particularly suitable for affixing adhesive labels.

#### Ordering information – Screw cap micro tubes without print – 0.5 ml



Purity/v	ersion	Skirted base with knurls	Conical base with knurls	Skirted base without knurls	Packaging: bag/case
sterile*	9.0	72.730.105			100/1,000
sterile*	9	72.730.005		72.785.005	100/1,000
-	9.0	72.730.100			500/5,000
-		72.730	72.733.001		500/5,000
-	without	72.730.003	72.733.010	72.785	500/5,000

#### Ordering information – Screw cap micro tubes without print – 1.5 ml



Purity/v	ersion	Skirted base with knurls	Conical base with knurls	Conical base without knurls	Packaging: bag/case
			72.692.210		25/500
PCR **	2		72.692.415		100/1,000
PCR Pressure that Pressure Pressu	9		72.692.405		100/1,000
sterile*	9.0		72.692.105		100/1,000
sterile*	9		72.692.005		100/1,000
-	<b>e</b>		72.692.100		500/5,000
-	9		72.692		500/5,000
-	without	72.703	72.607	72.687	500/5,000

#### Key:

= attached screw cap
= standard screw cap
\* = assembled



## Screw cap micro tubes

#### Ordering information - Screw cap micro tubes without print - 2.0 ml





Purity/v	ersion	Skirted base with knurls	Conical base with knurls	Skirted base without knurls	Packaging: bag/case
PERFORMANCE AND A DECEMBER OF	9		72.693.465		100/1,000
sterile*	9.0	72.694.105	72.693.105		100/1,000
sterile*	9	72.694.305	72.693.005		100/1,000
-	9.0	72.694.100	72.693.100		500/5,000
-	9	72.694.300	72.693		500/5,000
-	without	72.609.300	72.608	72.664	500/5,000

#### Screw cap micro tubes with print

For easy labeling, SARSTEDT offers screw cap micro tubes with a writing block and volume graduations.

#### Ordering information - Screw cap micro tubes with print



Purity/ve	ersion	Skirted base with knurls	Skirted base with knurls	Skirted base with knurls	Packaging: bag/case
	9.0	72.730.217	72.703.217	72.694.217	25/500
PCR have	<b>e</b>	72.730.416	72.703.416	72.694.416	100/1,000
* * * * * * * * * * * * * *	9	72.730.406	72.703.406	72.694.406	100/1,000
sterile*	9.0	72.730.106		72.694.106	100/1,000
sterile*	9	72.730.006		72.694.306 72.694.396**	100/1,000
-	P	72.730.107		72.694.107	500/1,000
_	9	72.730.007		72.694.307	250/5,000
-	without	72.730.009		72.609.601	250/5,000

Key:
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= attached screw cap
= standard screw cap
\* = assembled

= color mix with 10 different cap colors



## Screw cap micro tubes for special applications

#### Secure storage of particularly small volumes

Highly concentrated or expensive reagents and small sample volumes require maximum recovery with minimal fluid loss. The SARSTEDT volume limiter cap and corresponding tube reduce the vessel volume to 100  $\mu$ l. The special cap blocks dead space in the upper region of the tube and reduces evaporation, providing an ideal solution for storage, retention, and filling of small volumes.

#### Ordering information - Screw cap micro tube with volume limiter cap

Order no.	Description	Packaging: bag/case
72.733.201	Screw cap micro tube for limiting volume	500/5,000
65.710	Volume limiter screw cap	500/5,000



#### Amber screw cap micro tubes for light protection

Amber colored screw cap micro tubes are suitable for the storage of light-sensitive substances such as vitamins, enzymes, or antibodies with fluorescent dyes. The protective coloration of the vessel wall provides protection against UV rays and security in the examination of photosensitive analytes. The vessels are distinguished by the following advantages:

- Light protection by amber coloration UV radiation reduced by more than 90%
- Skirted base secure handling on the laboratory bench
- Knurls one-handed cap handling in the special gripper rack
- · Caps sold separately

#### Ordering information - Amber-colored screw cap micro tubes without caps

Order no.	Volume	Packaging: bag/case
72.730.004	0.5 ml	500/5,000
72.703.004	1.5 ml	500/1,000
72.609.303	2.0 ml	500/5,000



#### Colored screw caps

All SARSTEDT screw cap micro tubes can be combined with colored screw caps to facilitate labeling and sample identification. In addition to the naturally transparent screw cap, 10 other colors are available individually or as part of a mixed color option.

#### Ordering information – Colored screw caps

Order no.	Co	lor	Order no.	C	olor
65.716.300	natural	and the second s	65.716.306	orange	and the second se
65.716.301	blue	and the first state	65.716.307	black	and the family
65.716.302	yellow	and the second sec	65.716.308	violet	and the second se
65.716.303	red	and the second se	65.716.310	white	and the second second
65.716.304	pink	and the second	65.716.309	brown	and the second second
65.716.305	green	and the second se	65.716.399	Color mix (100	each of 10 colors)

Packaging: 500 pcs/bag · 10,000 pcs/case

#### Pierceable membrane cap - efficient and safe processing

A screw cap with an integrated pierceable membrane is ideal for automated filling and direct adaptation to analyzers. Available separately, it can be combined with all SARSTEDT screw cap micro tubes. Time-consuming opening and closing is unnecessary, efficient processing is accelerated, and the risk of contamination is reduced.

#### Ordering information – Membrane cap

Order no.	Description	Packaging: bag/case
65.3716	Membrane cap for screw cap micro tubes	500/2,000



#### Attached loop screw caps

SARSTEDT developed the attached loop screw cap for reliable cap allocation. The cap loop is placed securely between the knurls and thread and can be combined with every tube type.

#### Ordering information - Attached loop screw caps

Order no.	Description	Packaging: bag/case
65.712	Attached loop screw caps for micro tubes	500/5,000



## Caps and coding

#### Colored inserts for attached loop screw caps

Fast allocation and clear identification of reagents and samples is of central importance in laboratory work. Cap inserts in eight different colors that are simply pressed into the retaining loop cap allows samples to be coded quickly and flexibly for easy identification.

#### Ordering information – Colored cap inserts

Order no.	Co	lor	Packaging: bag/case	100
65.713	natural	and the second s	500/5,000	all
65.713.002	red		500/5,000	
65.713.004	yellow	and the second sec	500/5,000	
65.713.005	green	and the second second	500/5,000	
65.713.006	blue	and the second second	500/5,000	
65.713.007	violet	and the second second	500/5,000	
65.713.009	white	and the second sec	500/5,000	
65.713.010	black	and the second second	500/5,000	

#### Labelling

For your individual sample processing and labeling needs, SARSTEDT can provide screw cap micro tubes pre-affixed with labels. Many label options are possible including custom sizes, single and multi-colored print, 1D linear barcodes, and 2D barcodes.



#### Special order options for screw cap micro tubes

In order to provide our customers with the best products for their applications, SARSTEDT produces over 3000 different custommade items per year. Special product features such as print type, screw cap color, packaging sizes and quantities, purity degree, and many other options can be customized. Contact your sales representative or use the contact form at www.sarstedt.com for more details and to request a quotation.



#### Screw cap micro tubes in sterile double bag packaging

Aseptic handling is required for materials used in clean and sterile rooms, test kits, and highly sensitive analyses. For such demanding applications, SARSTEDT offers screw cap micro tubes and caps in special sterile double bag packaging.

Each sealed bag is packaged in a sealed second bag. After removal from this second outer bag, a completely sterile inner bag package is provided.

- Screw cap micro tubes and screw caps in double bags a clean, sterile solution for a wide range of applications
- Tubes and caps sold separately ideal for automated filling
- Caps in 10 colors easy color-coding for identification

#### Ordering information – Screw cap micro tubes, double bagged and sterile

Order no.	Volume	Skirted	Knurls	Packaging: double bag/case
72.730.711	0.5 ml	✓	✓	500/2,500
72.607.772	1.5 ml		✓	500/2,500
72.687.772	1.5 ml			500/2,500
72.664.711	2.0 ml	$\checkmark$		500/2,500
72.609.311	2.0 ml	$\checkmark$	✓	500/2,500

#### Ordering information - Screw caps, double bagged and sterile

Order no.	Color	Order no.	Color	Packaging: double bag/case
65.716.320	natural	65.716.322	yellow	500/5,000
65.716.323	red	65.716.321	blue	500/5,000
65.716.325	green	65.716.326	orange	500/5,000
65.716.327	black	65.716.329	brown	500/5,000
65.716.328	violet	65.716.330	white	500/5,000



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#### Special gripper racks for screw cap micro tubes

The circumference knurls of SARSTEDT screw cap micro tubes lock into the notched apertures of corresponding gripper racks for one-handed opening and closing. The gripper racks are made from durable, break-resistant, and transparent polycarbonate and can be disassembled for easy cleaning and autoclaving.



#### Ordering information - Gripper rack with notched apertures

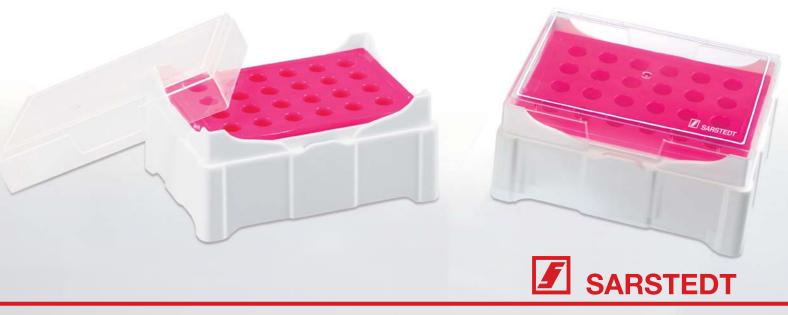
Order no.	Capacity / format	Length	Width	Height
93.894	18/3 x 6	137	70	40
93.848.100	20/2 x 10	257	62	40
93.1428	48/4 x 12	257	90	40

#### IsoFreeze® Rack for 1.5 and 2.0 ml screw cap micro tubes

The SARSTEDT IsoFreeze® Rack is a pipetting and storage station that provides reliable temperature control for temperaturesensitive applications like enzyme analysis, PCR or cell-based assays, careful sample thawing, and for stopping reaction. Once frozen, the IsoFreeze® Rack maintains the sample temperature at 4°C for up to 3.5 hours with the lid in place. If the IsoFreeze® Rack temperature rises to 7°C, the rack color noticeably changes from purple to pink. In addition to temperature maintenance, the IsoFreeze® Rack eliminates contamination risks associated with ice storage.

#### Ordering information – IsoFreeze® Rack for 1.5 and 2.0 ml screw cap micro tubes and micro tubes

Order no.	Capacity / format	Length	Width	Height	Packaging/item
95.983	24/4 x 6	146	105	70	1/case



#### Plastic storage boxes

For the convenient storage of screw cap micro tube and reaction vessels with a volume of 1.5 ml and 2.0 ml, SARSTEDT offers high quality polypropylene storage boxes suitable for long-term storage down to -90°C.

Advantages of plastic storage boxes:

- Hinged or slip-on lids suitable handling for all storage types
- Alphanumeric marking inside the box facilitates sample identification
- Autoclavable simple hygienic cleaning (121°C, 20 min.)
- Cold resistant reliable storage down to -90°C
- Six colors color-coded organization

#### Boxes with slip-on lid

- dimensions: 130 mm x 130 mm x 45 mm (Lx WxH)
- 81 storage spaces
- grid size 9 x 9

#### Boxes with hinged lid

- dimensions: 150 mm x 140 mm x 55 mm (Lx WxH)
- 100 storage spaces
- grid size 10 x 10

#### Ordering information – Plastic storage boxes

Colo	or	Slip-on lid	Hinged lid	Packaging: bag/case
transparent	and the second s	93.876	93.877	5/20
pink	and the second second	93.876.281	93.877.210	5/20
orange	and the second se	93.876.381	93.877.310	5/20
yellow		93.876.481	93.877.410	5/20
green	and the second se	93.876.581	93.877.510	5/20
blue	and the second se	93.876.681	93.877.610	5/20



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#### Cardboard storage boxes

SARSTEDT cardboard storage boxes provide secure and light-protected storage of screw cap micro tubes of all sizes. Their grid inserts provide designated storage space for 81 or 100 tubes and ample writing space is available on the lid. External box surfaces are moisture-repellent, and storage at -80°C is possible for long time periods.

#### Ordering information - Cardboard storage boxes

Order no.	Capacity / format	Suitable for	Length	Width	Height
95.064.923	100/10 x 10	0.5 ml	135	135	34
95.064.997	100/10 x 10	1.5/2.0 ml	135	135	45
95.064.981	81/9 x 9	1.5/2.0 ml	135	135	45

#### Styrofoam containers

Due to their insulating properties, Styrofoam containers are particularly suitable for storing temperature-sensitive reagents and samples. The small 20-place option can also be used as a benchtop rack.

#### Ordering information – Styrofoam container for 1.5 ml and 2.0 ml screw cap micro tubes and micro tubes

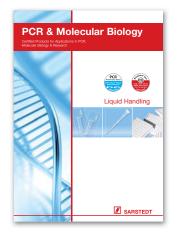
Order no.	Capacity / format	Lid	Length	Width	Height
95.1439	100/5 x 20	without	390	80	50
95.064.249	100/5 x 20	1	340	100	65
95.064.259	20/5 x 4	1	100	85	65



# If you have any questions, we'll be happy to help!

Visit our website: www.sarstedt.com











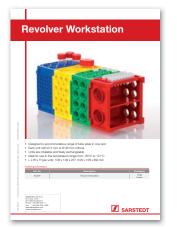
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