

making a difference

**QUALITY  
YOU CAN  
RELY ON**

**VACUETTE®**

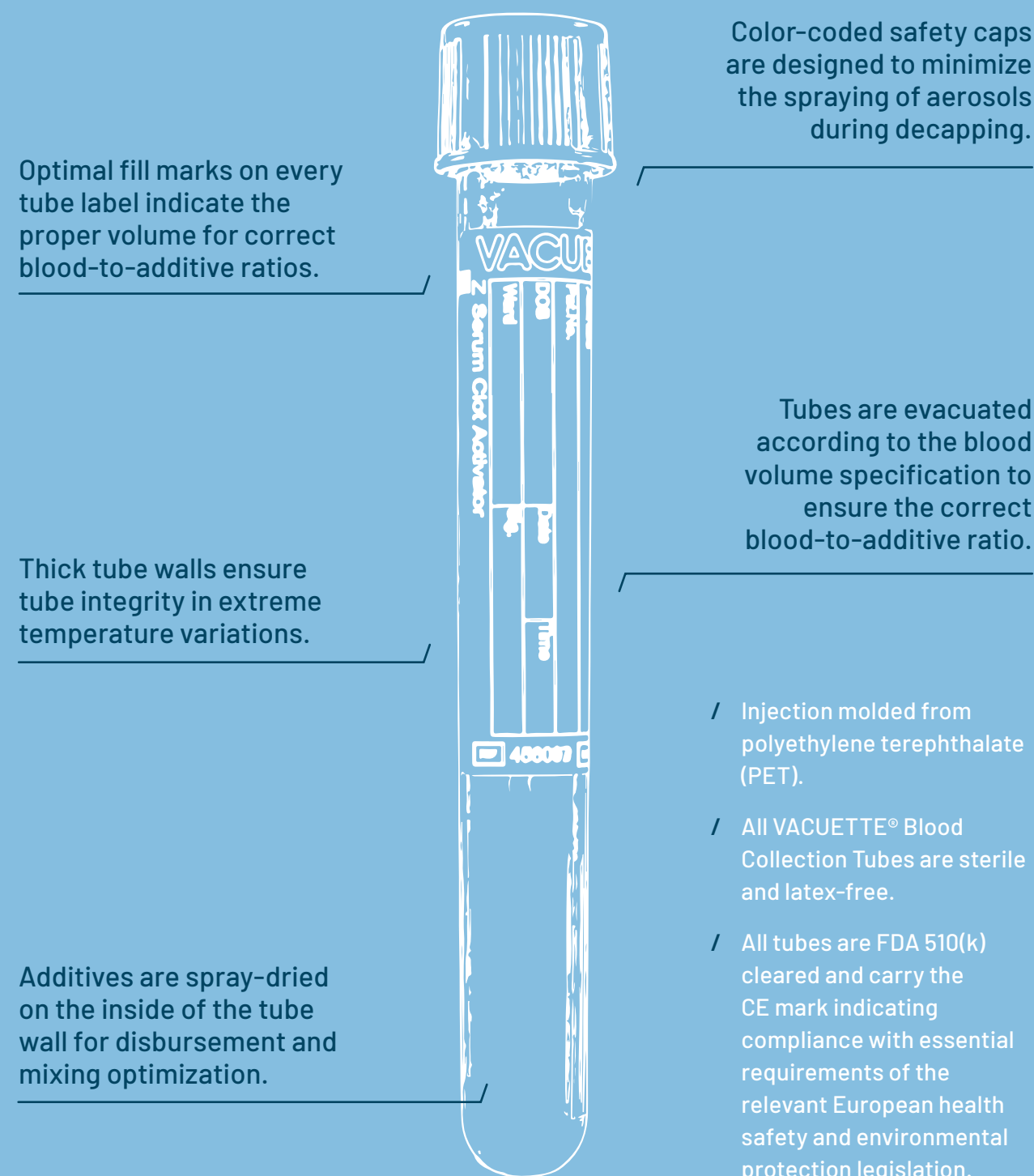
**Blood Collection Tubes**

Evacuated blood collection tubes for  
easy and safe sample collection.

  
**greiner**  
BIO-ONE

HIGHLY  
TRANSPARENT,  
VIRTUALLY  
UNBREAKABLE.

## STANDARD TUBES



In 1987, Greiner Labortechnik developed the world's first plastic evacuated blood collection tube. The innovative VACUETTE® system made its United States debut in 1997.

## SAFELY COLLECT, TRANSPORT AND PROCESS BLOOD

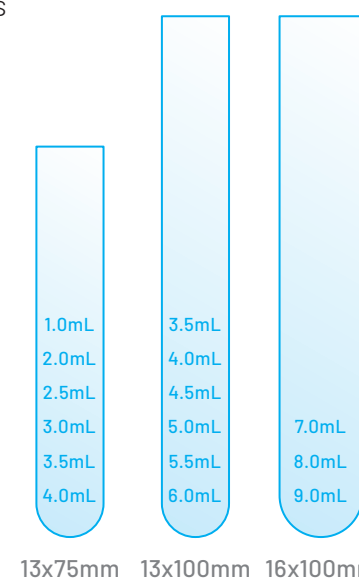
VACUETTE® Blood Collection Tubes are used to collect, transport and process blood for testing serum, plasma or whole blood in the clinical laboratory.

They are available in a variety of tube sizes and draw volumes as low as 1mL, as well as a range of additives for several analytical test methods.

The tubes, additive concentrations, volumes of liquid additives, and their permitted tolerances, as well as the blood-to-additive ratios, are in accordance to the requirements and recommendations of the international standards ISO 6710 and the Clinical and Laboratory Standards Institute's Approved Standards (CLSI).

## AVAILABLE TUBE SIZES AND VOLUMES

- / Standard 13x75mm, 13x100mm and 16x100mm sizes
- / Low volume tubes designed at standard 13x75mm tube size with draw volumes of 2.5mL or less to minimize the amount of blood collected from critically ill, pediatric and frequently drawn patients.



# QUALITY IN EVERY DETAIL

## VACUETTE® SAFETY CAPS

In addition to being color-coded to aid first-glance tube recognition, VACUETTE® SAFETY Caps are designed to minimize the spraying of aerosols during decapping. The recessed cap also reduces the incidence of contact with residual blood after sampling.

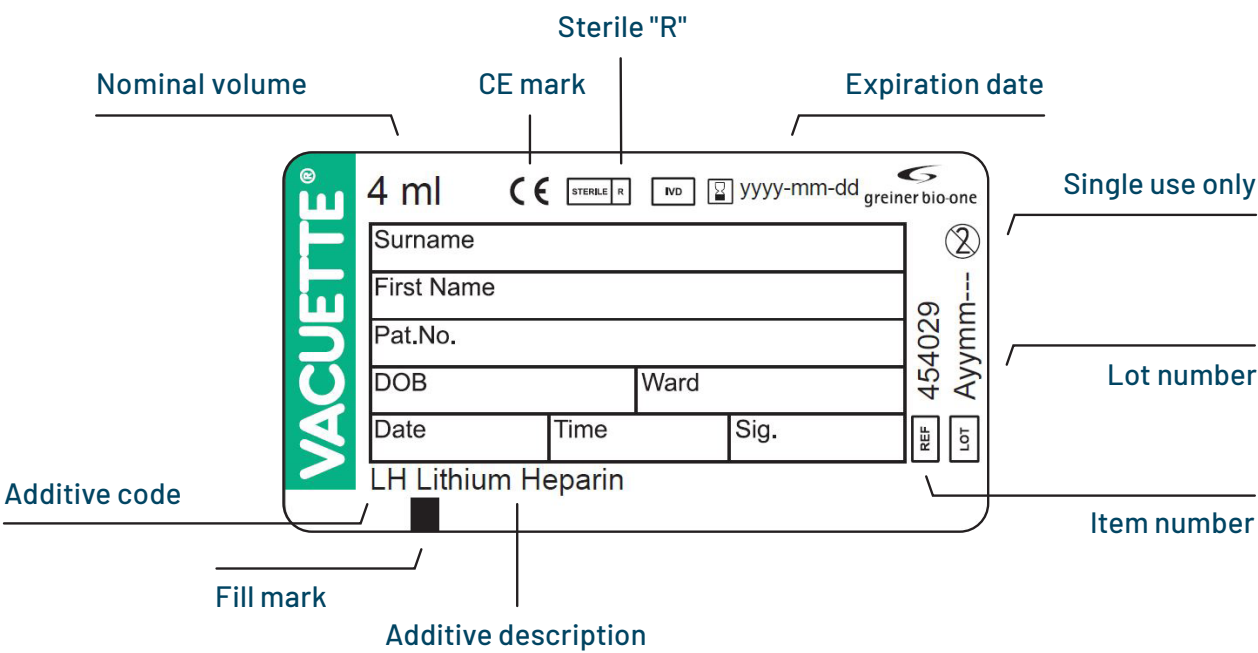
- Comprised of three components (cap, ring, stopper) for strength and stability.
- Short cap length allows for more barcode and/or label space on tube.



## LABELS WITH A PURPOSE

Every VACUETTE® Blood Collection Tube label features an optimal fill mark indicating the proper volume for correct blood-to-additive ratio. This mark assists in a visual control of the specimen volume.

- Nominal volume indicates the draw volume plus the additive volume contained in the tube.
- Fill tolerance is within  $\pm 10\%$  of the stated nominal volume in accordance with ISO and CLSI.
- All labels are color-coordinated with tube caps and conform to ISO 6710 standards.



# AVAILABLE IN A COMPREHENSIVE SELECTION OF ADDITIVES

- No additive
  - Contain no additives or clot activators.
- Sodium Citrate
  - Filled with buffered tri-sodium citrate solution with a citrate concentration of 3.2% (0.109mol/L).
  - High-altitude options available for locations 5,000 feet or more above sea level.
- Serum
  - Coated with micronized silica particles to activate clotting when tubes are gently inverted.
  - Available with or without gel separator.
- Heparin
  - Heparin activates antithrombins, which block the coagulation cascade and yield a whole blood/plasma sample.
  - Available as lithium heparin, lithium heparin with gel separator, or sodium heparin.
- EDTA
  - EDTA binds calcium ions and blocks the coagulation cascade.
  - Available as K2EDTA, K2EDTA with gel separator, or K3EDTA.
- Glycolytic Inhibitor
  - Contain an antiglycolytic agent, sodium fluoride, and an anticoagulant, potassium oxalate.
  - Suitable for the analysis of blood glucose and lactate.
- Trace Element
  - Contain sodium heparin.
  - Do not contain a clot activator.



## RING INDICATORS

Color-coded rings indicate draw volume or the presence of gel or sodium heparin.

- GOLD/YELLOW
  - Gel separator
- BLACK
  - Standard draw
- GREEN
  - Sodium heparin
- WHITE
  - Low volume draw



# VACUETTE® COAGULATION TUBES

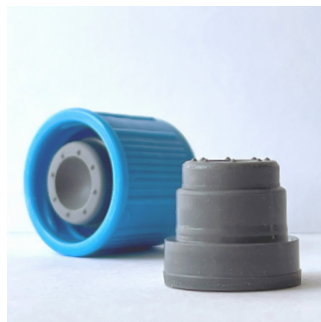
Greiner Bio-One developed the VACUETTE® Coagulation Tube, known as a "sandwich" tube due to its patented double-wall technology, in 1996.

The inner tube is made of polypropylene (PP) and prevents the evaporation of

the sodium citrate additive to maintain the correct blood-to-additive ratio.

The outer tube is made of polyethylene terephthalate (PET), which maintains the vacuum for maximum shelf life.

- / 3.2% citrate concentration (0.109mol/L)
- / High-altitude options available for locations 5,000 feet or more above sea level.



Two-step stopper

The VACUETTE® SAFETY Cap used on coagulation tubes is designed with a two-step stopper to seal both the inner and outer tubes for a longer shelf life.



Fill range indicator

Coagulation tube labels feature an arrow-shaped marker indicating the fill range where sample volume will yield the necessary 9:1 blood-to-additive ratio.



## RIGOROUS QUALITY STANDARDS

Product quality is of the highest priority for Greiner Bio-One, which is why our production locations are ISO 9001 and ISO 13485 certified. All products are also CE marked and FDA 510(k) cleared.



## EXCEPTIONAL SUPPORT

Everything we do and the way we do it is designed to make your work easier. We understand your needs and workflows, which means we can offer real added value and trust in long-term, sustainable relationships.



## SUSTAINABLE MANUFACTURING

As a producer of plastic medical products, Greiner Bio-One is committed to creating a sustainable global future and aims to be climate neutral by 2030.

# ADVANTAGES

# making a difference

[www.gbo.com](http://www.gbo.com)

**GREINER BIO-ONE  
NORTH AMERICA**

**PHONE** 888 286 3883  
**FAX** 800 726 0052  
**E-MAIL** [office@us.gbo.com](mailto:office@us.gbo.com)



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This product information is addressed exclusively to healthcare professionals. Devices of Greiner Bio-One are to be used by properly trained healthcare professionals only in accordance with the relevant Instructions for Use (IFU). For a listing of indications, contraindications, precautions and warnings, please refer to the Instructions for Use which accompanies each product or is available for download from our website at [www.gbo.com](http://www.gbo.com) (Download Center). For more information contact your local Greiner Bio-One sales representative or visit our website.

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