



# BD Diagnostics - Preanalytical Systems

Product Catalogue 2009/10



Helping all people  
live healthy lives

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*An online resource to identify, evaluate and promote the application of best practices in all aspects of the preanalytical phase of laboratory testing in clinical medicine.*

A preanalytical resource centre sponsored by  **BD**

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# BD in the UK and Ireland

BD is a medical technology company established over 100 years ago in New Jersey, USA. BD has annual revenues exceeding \$7.6 billion. A strong base in proprietary technology makes BD a leading provider of medical products for medication delivery, blood collection, diagnostic testing, flow cytometry, infusion therapy, surgery, anaesthesia delivery, ophthalmology, critical care, immunisation, sharps disposal and medication management.

In the UK and Ireland BD has seven sites: sales and marketing in Oxford, manufacturing in Plymouth, Swindon, Bidford-on-Avon in the UK, and Drogheda and Dun Laoghaire in Ireland, and accounting and administration in Shannon also in Ireland.

**BD employs over 1,800 associates in the UK and Ireland, including over 150 field-based sales, service and support representatives.**



## BD Diagnostics - Preanalytical Systems

The **BD Vacutainer®** range offers a complete system of tubes, needles, needle holders and safety devices, which are optimally designed and tested for controlling preanalytical variability throughout the specimen collection and handling process. The **BD Vacutainer®** range also includes a full range of products for paediatric and capillary blood collection.



## BD Diagnostics - Diagnostic Systems

BD Diagnostics offer new solutions with state-of-the-art instruments for infectious disease diagnosis, such as a line of automated blood culture instruments and bacterial identification and susceptibility testing. BD Diagnostics also offer dehydrated and prepared culture media, microbial identification systems, drug discovery, biopharmaceutical production, environmental monitoring and QA/QC applications.



## BD Medical - Diabetes Care

BD Medical - Diabetes Care produce a range of products and services designed to help people with diabetes live healthy lives. The **BD Micro-Fine™** range of insulin syringes, pen needles and lancets features some of the world's thinnest and shortest cannulae, helping to reduce the discomfort associated with insulin injections and blood capillary sampling.



## BD Medical - Medical Surgical Systems

BD Medical - Medical Surgical Systems provide hypodermic needles and syringes, infusion therapy devices, insulin injection systems and prefilled drug delivery systems for pharmaceutical companies. It offers the industry's broadest, deepest line of safety engineered sharps products, as well as surgical and regional anaesthesia, critical care and sharps disposal products.



## BD Medical - Ophthalmic Systems

BD's Ophthalmic products comprise two well-known names in ophthalmology, **BD Beaver™** and **BD Visitec™**. The product range includes an extensive range of sterile, single use devices and custom kits specifically designed for the ophthalmic surgeon.

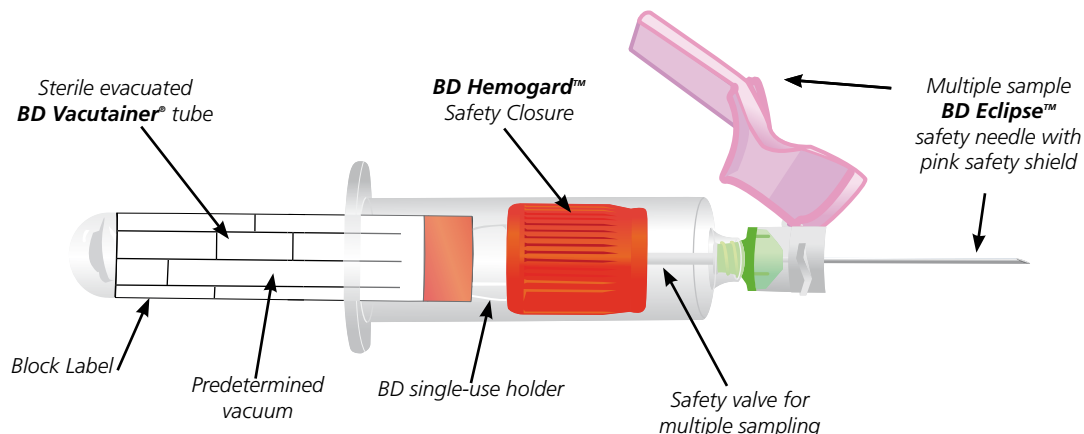


## BD Biosciences

BD Biosciences offer products suitable for clinical research and industrial applications. The product range includes advanced clinical diagnostics systems for laboratories utilising flow cytometry, micro volume fluorimetry and molecular techniques as well as innovative, leading edge instruments, reagents, culture systems and disposables for life science and drug discovery research.

# The BD Vacutainer® System

The **BD Vacutainer®** blood collection system is a closed evacuated system, which consists of a sterile double-ended needle with safety valve, **BD Vacutainer®** holder and sterile **BD Vacutainer®** evacuated blood collection tubes with predetermined vacuum.



Blood is collected by threading the sleeve-covered end of the needle (NP) into the holder, then puncturing the patient's vein with the other end (IV). After performing venepuncture, multiple tubes can then be pushed into the holder one at a time, and the predetermined vacuum of the tube allows the required volume of blood to be collected, thus resulting in an optimal blood to additive ratio.

There are many advantages to using the **BD Vacutainer®** blood collection system. Some of the most important are:

- It prevents exposure by ensuring blood flows directly from the patient vein into the tube.
- There is a wide range of colour-coded tubes available with additives for a variety of analytical tests covering laboratory disciplines such as haematology, clinical chemistry, immunology chemistry, coagulation, blood banking and others.
- There is no manual influence on the drawing of blood so the process remains consistent. The system is a more reliable alternative to the traditional needle and syringe technique<sup>1</sup>.

The tube cap closures are colour-coded according to the additive and the international standard (ISO 6710). Low draw volume tubes have a translucent version of the equivalent standard draw volume product.

**BD Vacutainer®** Plus (plastic) blood collection tubes are made of clear latex free PET (Polyethylene Terephthalate), which is shatter resistant and offers a clinically tested safer alternative to glass<sup>2</sup>.

**BD Diagnostics** - Preanalytical Systems also provide a range of other products including:

- Blood collection needles in a variety of gauges and lengths, including **BD Eclipse™** Safety needle.
- Safety blood collection sets including **BD Safety-Lok™** and **BD Push Button**.
- **BD Safety** needles and blood collection sets are available with pre-attached **BD Holder**.
- Various holders, adaptors and accessories, such as tourniquets.
- Products for the collection and analysis of urine.
- The **BD Microtainer®** paediatric collection, including **BD Microtainer®** tubes with **BD Microgard™** closure.
- Products for the collection of capillary blood samples from infants and adults, including the **BD Microtainer® Contact-Activated Lancet** and **BD Quikheel™** incision devices.
- Critical Care Collection including safety products for arterial blood collection and analysis.
- An expanding range of Molecular Diagnostic products.

**BD Diagnostics** - Preanalytical Systems offers the widest range of safety-engineered products in the evacuated blood collection market.

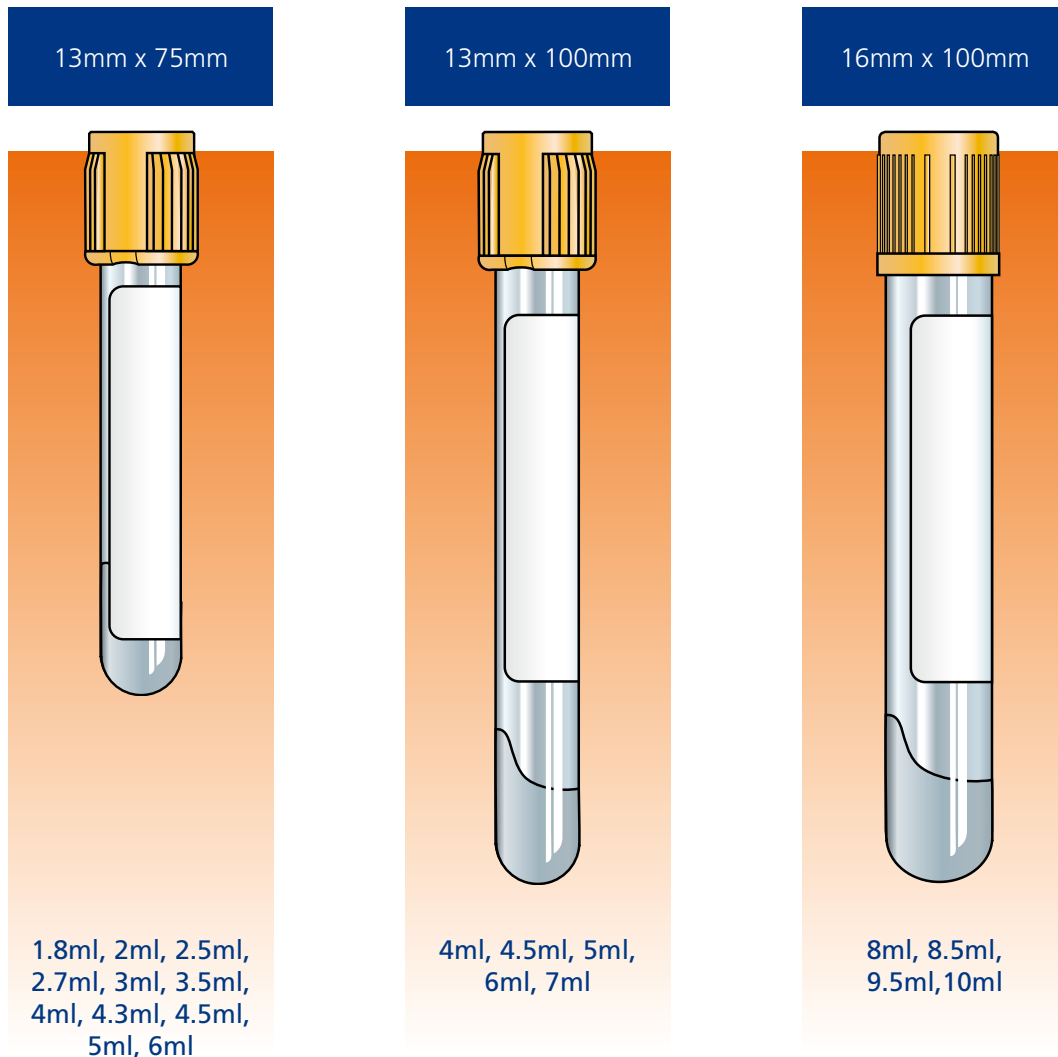
1. BD Ref. VS5391 - Evaluation of Sample Quality And Analytic Results Between Specimens Collected in BD Vacutainer® Tubes and Current Syringe Collections. BD, Franklin Lakes, NJ, USA, November 1998  
2. Plastic blood tubes improve safety. Wayman DJ. *Plastics News*, June 6, 1994:52

# BD Vacutainer® Tube Information

**BD Vacutainer®** blood collection tubes incorporate the latex-free **BD Hemogard™** safety closure<sup>1</sup>, which has two parts; an inner stopper and an outer protective cap. The **BD Hemogard™** safety closure is easier to remove than conventional stoppers<sup>2</sup>, and protects the user from contact with patients' blood. The **BD Hemogard™** safety closure may also be removed using an automated system such as **PLUGGO™** (available from Clinicon UK Ltd). The **BD Vacutainer®** blood collection tubes can be recapped using secondary over-caps (also available from Clinicon UK Ltd - tel. 01428 707739).

## Tube Dimensions

**BD Vacutainer®** tubes come in three main sizes, each with a range of different draw volumes.



**BD Vacutainer®** Systems also offer the following tube sizes:

**8mm x 100mm** – 1.8ml

**10.25mm x 120mm** – 5ml

1. 1990 Winner of the Industrial Designers Society of Americas "Socially Responsible Design" Award  
2. BD Ref. VS5713- A Comparative Evaluation of the 16mm BD Hemogard™ Closures with Respect to User Exposure to Blood and Cap Removal and Reinsertion Forces. BD, Franklin Lakes, NJ, USA, September 1999

# BD Vacutainer® Notch Label

## Enabling alignment for improved efficiency

At BD, we understand that misaligned labels can interfere with the reading of bar codes in automated systems, which can lead to system downtime, re-labelling of tubes, and unnecessary delays in specimen processing.

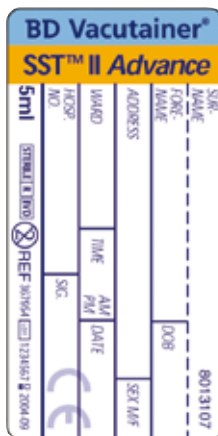
It is our goal to help you improve your laboratory's efficiency by offering solutions designed to reduce the additional work associated with misaligned secondary labels.

To assist in this effort, all BD Vacutainer® Tubes have been re-styled to include a visual guide for proper placement of secondary labelling. With proper training, the use of these patented label features should help to reduce errors due to label misalignment.

This re-styling affects the unit label, shelf pack label, and case label.

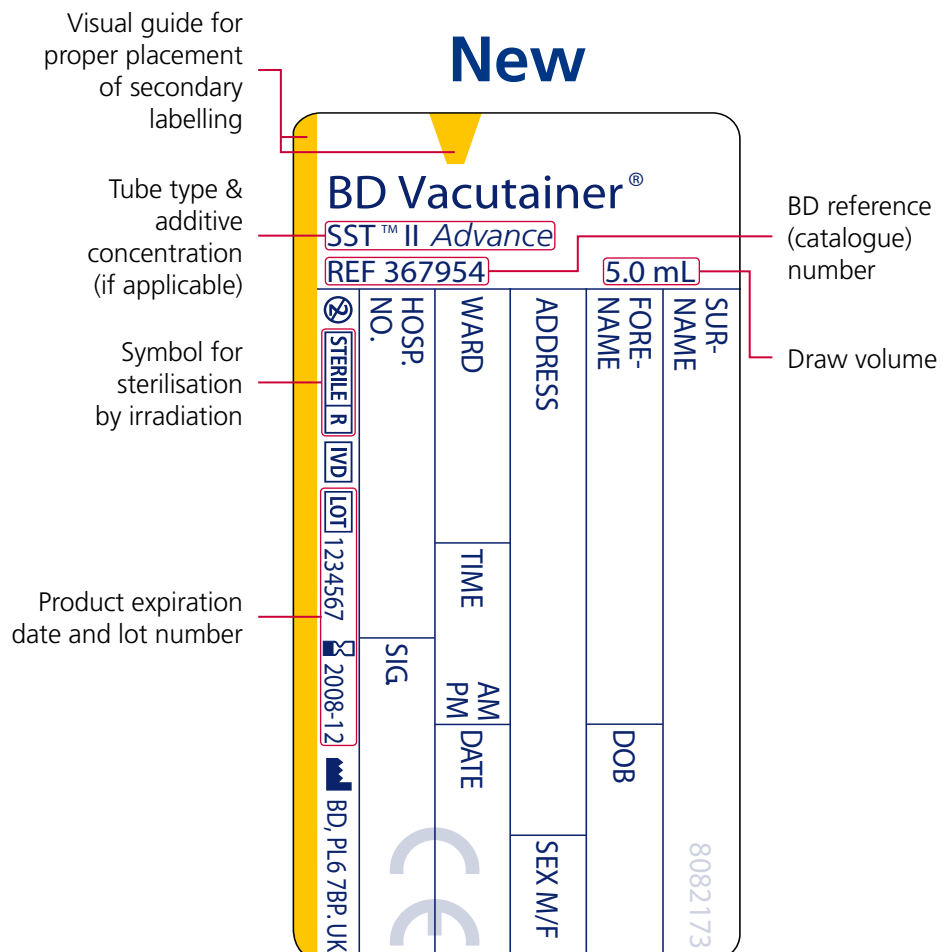
The new style labelling will be introduced progressively across the BD Vacutainer® product range.

### Old



The old label design is a vertical rectangular label with a blue header containing 'BD Vacutainer®' and 'SST™ II Advance'. Below the header, the label is divided into several sections for patient information: SUR-NAME, FORE-NAME, ADDRESS, WARD, HOSP. NO., TIME, AM/PM, DATE, SEX, and DOB. At the bottom, there is a CE mark and a small text area with 'STERILE I.R. INFO', 'REF 307954', and '1234567 8 2004 09'.

### New



The new label design is a vertical rectangular label with a yellow header containing 'BD Vacutainer®' and 'SST™ II Advance'. Below the header, the label is divided into several sections for patient information: SUR-NAME, FORE-NAME, ADDRESS, WARD, HOSP. NO., TIME, AM/PM, DATE, SEX, and DOB. At the bottom, there is a CE mark and a small text area with 'STERILE I.R. INFO', 'REF 307954', and '1234567 8 2004 09'. Red lines and boxes highlight specific features on the new label:

- Visual guide for proper placement of secondary labelling: A yellow triangle pointing to the top of the label.
- Tube type & additive concentration (if applicable): A box around 'SST™ II Advance'.
- BD reference (catalogue) number: A box around 'REF 367954'.
- Draw volume: A box around '5.0 mL'.
- Symbol for sterilisation by irradiation: A box around the 'STERILE I.R. INFO' symbol.
- Product expiration date and lot number: A box around 'LOT 1234567 8 2008-12'.

# BD Vacutainer® Training and Support

BD Vacutainer® brand offers users a variety of high quality training programmes to continually update healthcare workers in the use of the BD Vacutainer® blood collection system. The BD Vacutainer® blood collection system is designed to be simple in use. However, it is important for all staff to derive maximum benefit from the system, which is why we are committed to training staff in the hospital and community.

An introduction to the use of the **BD Vacutainer®** blood collection system is provided when a hospital converts to using **BD Vacutainer®** Systems products and services. This usually takes place prior to and during the introduction of the system, and includes all healthcare personnel concerned.

A variety of material is available to support the training programme, all of which is available from BD Customer Services. This includes:

- **BD Optima<sup>SM</sup>** – a comprehensive programme for improving laboratory efficiency.
- **BD Valido<sup>SM</sup>** – a scientific process to assist with diagnostic system validation.
- **Phlebotomy Education CD Rom Programme** – this tool is designed for customer education in the use of the **BD Vacutainer®** Systems and Safety Products. (Only available to **BD Vacutainer®** users.)
- **BD Vacutainer® Quick Reference Guide:** a step-by-step guide to using the **BD Vacutainer®** blood collection system.
- **A Guide to the Withdrawal of Blood:** a comprehensive guide to using the **BD Vacutainer®** blood collection system in a pocket size booklet, which is available to all staff.
- **Tube Guides:** detailing the order of draw to be used when collecting blood with more than one tube and which tests each tube should be used for. These are hospital specific and should be arranged through the hospital's Pathology Laboratory.
- **BD Vacutainer® Interactive Centrifugation Guide:** guidance on centrifugation requirements.
- **Mixing Guidelines:** giving guidance on this important preanalytical step.
- **Clinical White Papers:** can also be obtained to support individual products.
- **www.bd.com/uk:** BD's website is a database of information and support for **BD Vacutainer®** users. For example: instructions for use, wall charts, product information and other educational materials can be found here.

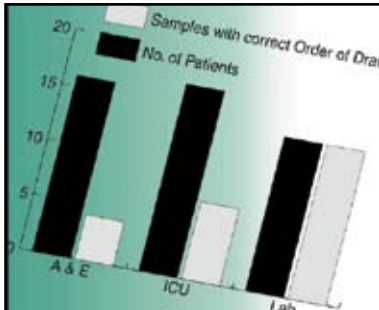


There is additional support in the form of:

- **Customer Care Team** – a team of customer care representatives dedicated to helping and supporting our customers with product enquiries and order fulfilment information.
- **Technical Specialists** – technical specialists are available to answer scientific queries regarding BD products and services.
- **Fully trained Sales Specialists** – Our team of sales specialists has a good understanding of laboratory environments and offer a wide range of support and advice through the introduction and use of BD Vacutainer® brand products and services. They also offer advice on issues such as healthcare worker and patient safety, product optimisation and patient comfort.

# Preamanalytical Variables

46-68% of all laboratory errors occur in the preanalytical phase<sup>1</sup>, and 12.5% of preanalytical laboratory errors may cause an erroneous medical decision<sup>2</sup>. In order for results to be as accurate as possible and to reduce the number of samples that need to be re-drawn, it is important to be aware of preanalytical variables in the laboratory.



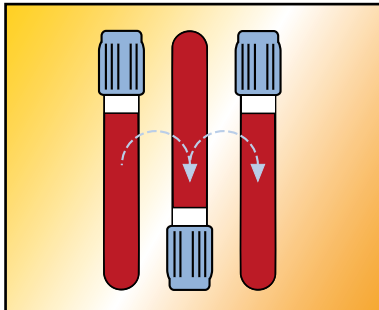
**Order of draw** – for multiple samples.

1. Blood Culture Bottles
2. Coagulation Tubes
3. Non-Additive Tubes
4. Additive Tubes.

Coagulation tubes should be taken before plastic serum tubes as the clot activator in plastic serum tubes may affect coagulation test results.

## Tourniquet time

The tourniquet must be loosened after no more than one minute. If applied for longer the pressure from the tourniquet may cause elevated potassium levels. The tourniquet should be positioned 7.5cm to 10cm above the puncture site.



## Mixing

Most tubes contain an additive. Regardless of the additive type, all tubes should be gently inverted to ensure thorough mixing of the blood with the additive. Tubes with anticoagulants such as EDTA, heparin etc., must be mixed to ensure that the specimen does not clot. For example insufficient mixing could lead to platelet clumping in EDTA tubes. Tubes with a clot activator such as BD Plus Serum Tubes must also be mixed or the specimen may not clot completely in the recommended time.

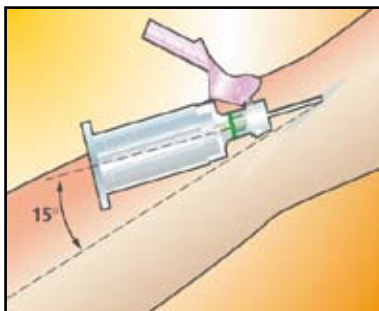


## Light sensitive analytes

These include Bilirubin, Erythrocyte Protoporphyrin and Carotene. They must be transported in appropriate materials, such as foil, or should be collected in a light sensitive tube otherwise results may be affected.

## Storage of tubes

Store all tubes at 4-25°C (39-77°F), unless otherwise noted on the package label. Extreme temperatures can reduce the effectiveness of the tubes and cause abstract results. Always remember to rotate your stock.



## Venepuncture site

Veins that have thickened walls are harder to puncture than normal. In such circumstances, or if the chosen vein has been damaged by frequent venepunctures, it is best to look for another vein at a different site.

## Centrifugation speed

Never centrifuge glass tubes above 2200g in a horizontal head (swinging bucket) centrifuge or above 1300g in fixed angle centrifuge heads, as breakage may occur. The clotting of a sample must be fully completed before centrifugation of serum tubes. Specific centrifugation instructions are described in the instructions for use provided with each product package.



1. Source Becan-Mcbride K. Laboratory Sampling: Does the Process Affect the Outcome? Journal of Intravenous Nursing May – June 1999; Vol. 22, No. 3  
2. Source: M. Plebani Carraro P. Mistakes in a stat Laboratory: types and frequency. Clinical Chemistry. 1997; 43:8 1348-1351

# A Safer Approach



**BD is the world's leading manufacturer of safety-engineered devices and BD Diagnostics - Preanalytical Systems is the world's leading supplier of safety products within the evacuated blood collection market.**

Every day thousands of healthcare workers are potentially exposed to life threatening diseases as a result of accidents involving medical devices critical to the care and treatment of their patients.

Needlestick and other sharps injuries present an exposure risk to hepatitis B (HBV), hepatitis C (HCV), HIV and other blood borne pathogens, and represent an occupational hazard to over 5.6 million workers in the healthcare industry. BD is a pioneer in the development of safety products designed to protect healthcare workers and is actively seeking to expand the market for products that protect against sharps injuries.

BD has dedicated more money, human resources and technical know-how to the task of reducing sharps injuries than any other company. With more than \$500 million spent on manufacturing and R&D along with the approval of 75 new patents for safety devices over the past 12 years, BD leads the world in providing the means for reducing healthcare worker injuries.

BD is committed to raising awareness of risks faced by healthcare workers and the methods for increasing safety. Our company's goal is to educate and inform institutions and the people at risk. Today, we have the most extensive array of safety-engineered devices in the industry, including blood collection systems, syringes and infusion therapy systems, and are the acknowledged leader in providing the newest generations of technology and educational services.

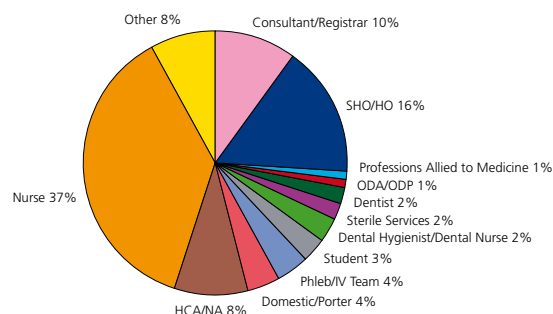
BD has launched the Safety Compliance Initiative to raise end-user awareness of the risk of needlestick and other sharps injuries. We will work with you to achieve your safety goals, while continuing to deliver superior patient care. BD also provides substantial support for the EPINet™ (The Exposure Prevention Information Network) program, which tracks and analyses needlestick injuries. The intent of EPINet™ is to provide healthcare facilities with a standardised method for recording percutaneous injuries and contacts with blood and other body fluids. With more than 65 years of providing safety-engineered devices, educational services and value programmes designed to help prevent occupational injury, BD recognises that engineering controls are an effective component of an injury reduction programme.

By choosing to work with BD to transition your Trust you can select from the widest range of safety products in the world. Our trained and competent clinical resource consultants, experts and sales team will give you access to the largest range of support services and specialist education programs available in the industry. You also have the reassurance of knowing that you are working with a team of people dedicated to offering you real solutions to the safety challenges you are facing in the work place today.

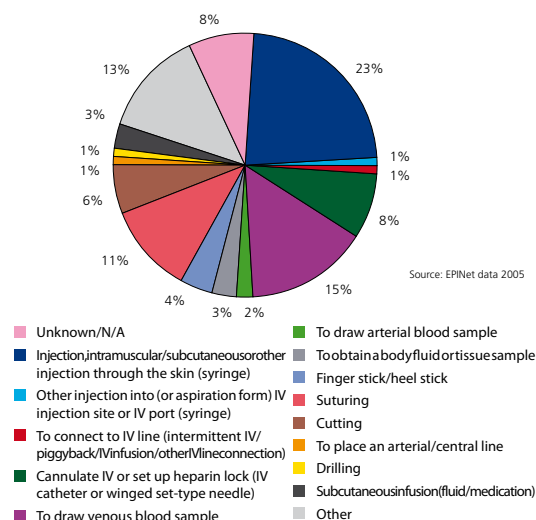
For more information on this and other BD Safety products please contact us on:

**Tel: 01865 748844**  
**BDUK\_customerservice@europe.bd.com**  
**www.bd.com/uk**

EPINet™ is a trademark of the University of Virginia Patent Foundation

**Job Category of the Injured Worker**

### Original Purpose of the Sharp Item



# BD Vacutainer® Paediatric Product Range

## BD Microtainer® Contact-Activated Lancet

A full product line of safety-engineered capillary blood sampling devices



- 1 The **BD Microtainer® Contact-Activated Lancet** provides greater confidence while handling of the product enhances user comfort.
- 2 The lancet facilitates a consistent puncture depth for easier sampling.
- 3 Puncture accuracy is improved by the Lancet covering only a small area at contact point which improves visibility of the desired puncture site.
- 4 Lancet activates in one step.
- 5 One-step activation promotes safety with fast, precise and consistent punctures.
- 6 Design prevents product from being reused, reducing the possibility of patient, clinician and/or sample contamination.
- 7 Automatic retraction of lancet into device minimises the possibility of injury.

## BD Quikheel™ Incision Device

The safe, easy and virtually painless blood sampling device designed for heelsticks in premature infants, newborns and babies.



- 1 Tapered surface under **BD Quikheel™** logo provides better visibility of blade location for accurate site selection.
- 2 Finger contoured design provides a steady and stable grip during lancet activation.
- 3 Instant trigger action provides a rapid automated incision of consistent depth and width that ensures desired blood flow.
- 4 Extra thin surgical steel blade provides the finest, cleanest surgical incision resulting in a virtually pain-free heelstick.
- 5 Permanently retractable blade minimises potential for injury and prevents re-use.

## BD Microtainer® with BD Microgard™ Closure

A full family of products for all your capillary collection needs



- 1 Integral collector eliminates the need for assembly.
- 2 **BD Microgard™** closure nests securely on bottom of tube or extender.
- 3 8mm inner tube diameter allows for easy probe access.
- 4 Lot number and expiration dates printed, for increased quality control.
- 5 Wider tube reservoir with exclusive textured inner surface improves flow and mixability.
- 6 Unique "twist-assist" safety **BD Microgard™** closure significantly reduces splatter upon removal.
- 7 Can be used with an extender to fit tube racks.
- 8 Amber tubes are available for light sensitive analytes.

# BD Vacutainer® Serum Tubes



**BD Vacutainer®** Serum tubes are used to obtain a serum sample. The tubes are available in plastic, a range of sizes and can be identified by a red cap. **BD Vacutainer®** Serum tubes are also available with a pink cap and crossmatch label for transfusion samples. (See page 16.)

**BD Vacutainer®** Plus Serum tubes have the additive silica sprayed on the inner walls of the tube to accelerate the clotting process.

**BD Vacutainer®** Serum tubes are also available with the additive thrombin, which significantly accelerates the clotting time. An orange cap identifies BD Vacutainer® thrombin tubes.

The minimum recommended clotting time for serum tubes for patients without anticoagulant is:

<b>BD Vacutainer® Serum Tube (Red)</b>	- 60 minutes
<b>BD Vacutainer® Thrombin Tube (Orange)</b>	- 5 minutes

Cat. No.	NHS Code	Vol. (ml)	Additive	Cap Colour	Size (mm)	Label Type	Box/Case Qty
<b>BD Vacutainer® Plastic Serum tube with Red BD Hemogard™ Closure</b>							
368493	KFK325	2	Silica (Clot Activator)		13x75	Block	100/1000
368975	KFK242	4	Silica (Clot Activator)		13x75	Block	100/1000
367837	KFK168	6	Silica (Clot Activator)		13x100	Block	100/1000
367895	KFK285	10	Silica (Clot Activator)		16x100	Block	100/1000
<b>BD Vacutainer® Plastic Thrombin tube with Orange BD Hemogard™ Closure</b>							
367817		4.8	Thrombin		13x75	Paper	100/1000
367811		6	Thrombin		13x100	Paper	100/1000

Mixing recommendation:	BD Plus serum tubes should be gently inverted 180° and back 5-6 times
Centrifugation Instructions:	≤ 1300g for 10 minutes at 25°C room temperature

**Please contact us for copies of BD clinical studies relating to BD Vacutainer® Plus Serum Tubes  
Clinical Paper - VS7266**

# BD Vacutainer® Coagulation Tubes (Buffered Sodium Citrate)



**BD Vacutainer®** Citrate tubes are used to obtain a citrate plasma sample. They contain buffered sodium citrate solution, which is used as an anticoagulant. The tubes are available in a range of sizes in both plastic and glass and can be identified by a light blue cap.

**BD Vacutainer® Plus Citrate** features innovative tube geometry that minimises tube headspace and associated platelet activation to optimise APTT monitoring of unfractionated Heparin patients. You will always get a full draw with standard outside tube dimensions, even with small draw volumes.

**BD Vacutainer® Plus Citrate** tubes combine the following advantages:

- **Clinically equivalent performance** to the recognised global 'Gold Standard', the 4.5ml BD Vacutainer® Glass Buffered Citrate tube.<sup>1</sup>
- **Clinically proven** in multi-centre clinical trials for coagulation testing across all major patient populations.
- **Evaluated** with the most widely used coagulation analytical systems.<sup>2</sup>

**BD Vacutainer®** brand also offers glass CTAD (buffered Citrate, Theophylline, Adenosine and Dipyridamole) tubes to obtain a citrate plasma sample, where the in vitro heparin activity has been stabilised.

Cat. No.	NHS Code	Vol. (ml)	Additive	Cap Colour	Size (mm)	Label Type	Box/Case Qty
<b>BD Vacutainer® Plus Citrate tube with Light Blue BD Hemogard™ Closure</b>							
363093	KFK117	1.8	Na Citrate (0.109M)		13x75	Block	100/1000
363095	KFK119	2.7	Na Citrate (0.109M)		13x75	Block	100/1000
<b>BD Vacutainer® Glass Citrate tube with Light Blue BD Hemogard™ Closure</b>							
367691	KFK186	4.5	Na Citrate (0.105M)		13x75	Block	100/1000
<b>BD Vacutainer® Glass CTAD tube with Light Blue BD Hemogard™ Closure</b>							
367562	KFK043	2.7	CTAD (0.109M)		13x75	Paper	100/1000
367595		3.15	CTAD (0.109M)		13x75	Paper	100/1000
367599	KFK022	4.5	CTAD (0.109M)		13x75	Paper	100/1000

Mixing recommendation:	Citrate tubes should be gently inverted 180° and back 3-4 times
Centrifugation Instructions:	Plastic Citrate tubes - 2000-2500g for 10-15 minutes at 25°C room temperature Glass Citrate tubes - 1500g for 15 minutes at 25°C room temperature*

1. BD Ref. VS5936 Evaluation of BD Vacutainer® Plus 2.7 and 1.8mL Sodium Citrate Coagulation Tubes Using The ELECTRA 1400c™ Analyser. BD, Franklin Lakes, NJ, USA November 2001

2. BD Ref. VS5966 Evaluation of 0.109M BD Vacutainer® Plus Plastic and 0.105M BD Vacutainer® Glass Sodium Citrate Tubes for PT and APTT Using the Sysmex CA - 1500 Analyzer. BD, Franklin Lakes, NJ, USA June 2002

**Please contact us for copies of BD clinical studies relating to BD Vacutainer® Plus Citrate Tubes**

# BD Vacutainer® ESR Tubes (Buffered Sodium Citrate)

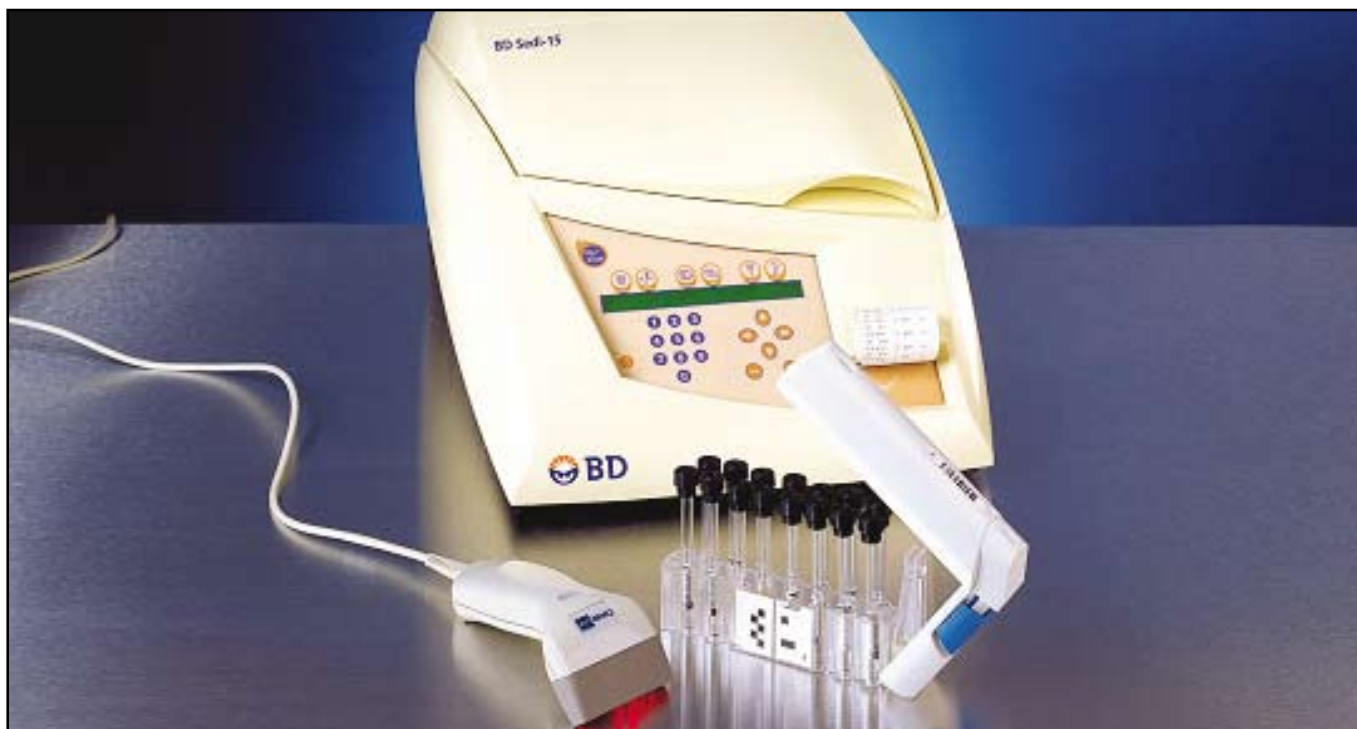


**BD Vacutainer® Seditainer™** tubes contain buffered sodium citrate and are used to obtain a whole blood sample for ESR determination without the need for opening a tube for blood pipetting or transfer. **BD Seditainer™** tubes are available in glass and are identified by a black cap. Blood is drawn directly into the **BD Seditainer™** tube, the tube has to be mixed 8-10 times, inserted into the **BD Seditainer™** Stand and the result can be read after 60 minutes. The **BD Seditainer™** stand holds up to 10 **BD Seditainer™** tubes and is equipped with a unique zero level adjustment and movable scales giving Westergren readings.

Cat. No.	NHS Code	Vol. (ml)	Additive	Cap Colour	Size (mm)	Label Type	Box/Case Qty
BD Vacutainer® Seditainer™ Glass tube with Black BD Hemogard™ Closure							
366671	KFK013	5	Na Citrate (0.105M)		10.25x120	Block	100/1000
BD Vacutainer® Seditainer™ Glass tube with Black Conventional Closure							
366690	KFK198	5	Na Citrate (0.105M)		10.25x120	Block	100/1000
Cat. No.	Description			Qty			
BD Vacutainer® Seditainer™ Manual ESR Stand							
366016	BD Seditainer™ Manual ESR Stand			1			

Mixing recommendation: ESR tubes should be gently inverted 180° and back 8-10 times

# BD Vacutainer® ESR Products



**BD Vacutainer® Sedi-15™** Instrument is a fully automated and closed system for the determination of the Erythrocyte Sedimentation Rate (ESR). **BD Vacutainer® Sedi-15™** will calculate the manual one hour and two hour Westergren readings within 27 minutes, utilising its unique integrated mixer and digital camera. The instrument is equipped with a rack which holds 15 sterile evacuated 1.8ml **BD Seditainer™** tubes, an integrated printer for immediate printed results, and a network cable allowing it to be linked with other **BD Vacutainer® Sedi-15™** Instruments. A quality control start-up kit including check tubes is also available.

<i>Cat. No.</i>	<i>NHS Code</i>	<i>Vol. (ml)</i>	<i>Additive</i>	<i>Cap Colour</i>	<i>Size (mm)</i>	<i>Label Type</i>	<i>Box/Case Qty.</i>
<b>BD Vacutainer® Seditainer™ Glass tube with Black Conventional Closure</b>							
366673	KFK219	1.8	Na Citrate (0.105M)		8x100	Block	100/1000

<i>Cat. No</i>	<i>Description</i>	<i>Qty</i>
<b>BD Vacutainer® Sedi-15™ System and Additional Equipment</b>		
366076	BD Sedi-15™ Closed Automated System	1
366041	BD Sedi-15™ Tube Rack (holds up to 15 1.8ml tubes)	1
366042	BD Sedi-15™ Barcode Reader	1
361520	BD Sedi-15™ Printer Paper Roll	20
366119	Quality Performance Test Kit	1
366094	Network Cable (5m)	1

<b>BD Vacutainer® Sedisystem™ Additional Equipment</b>		
366044	BD Sedisystem™ Printer Paper Roll	1

Mixing recommendation: ESR tubes should be gently inverted 180° and back 8-10 times

Please contact us for copies of BD clinical studies relating to BD Vacutainer® Sedi-15 instrument

# BD Vacutainer® Serum Separator Tubes (BD SST™ II Advance)



**BD Vacutainer®** SST II *Advance* tubes are used to obtain and separate a serum sample. The tubes are available in a range of sizes in plastic and can generally be identified by a gold cap.

**BD SST™ II Advance** tubes contain Silica to activate clotting of the specimen, and a gel that forms a barrier between the clot and the serum after centrifugation.

**BD SST™ II Advance** tubes contain an acrylic based gel and unique gel design with optimised slope. This design enables centrifugation flexibility which provides increased laboratory workflow and process efficiency.

The minimum recommended clotting time for **BD SST™ II Advance** tubes for patients without anticoagulant is 30 minutes.

Cat. No.	NHS Code	Vol. (ml)	Additive	Cap Colour	Size (mm)	Label Type	Box/Case Qty
BD Vacutainer® Plastic SST™ II <i>Advance</i> tube with BD Hemogard™ Closure							
367956	KFK112	3.5	Silica (Clot Activator)/Gel		13x75	Block	100/1000
366127	KFK012	3.5	Silica (Clot Activator)/Gel		13x75	Block	100/1000
368968	KFK311	5	Silica (Clot Activator)/Gel		13x100	Paper	100/1000
367954	KFK114	5	Silica (Clot Activator)/Gel		13x100	Block	100/1000
367958	KFK127	8.5	Silica (Clot Activator)/Gel		16x100	Block	100/1000

Mixing recommendation:	<b>BD SST™ II Advance</b> tubes should be gently inverted 180° and back 5-6 times
Centrifugation Instructions:	Plus <b>BD SST™ II Advance</b> tubes - 1300-2000g for 10 minutes at 25°C room temperature

Catalogue numbers 366127 and 368968 have been designed to enable tube differentiation in laboratories where process automation and product flow through the laboratory require this. They do not follow the established colour code, described in ISO 6710:1995, and used by BD for the majority of our tube product portfolio. If ordering these tubes, it is important to ensure that the appropriate staff in your organisation are aware of these differences. Using the wrong tube for any given test may result in analytical error.

**Please contact us for copies of BD clinical studies relating to BD Vacutainer® BD SST™ II tubes**

# BD Vacutainer® Rapid Serum Tubes (BD RST)



The BD Vacutainer® Rapid Serum Tube (RST) is a new and innovative product from BD that will provide the laboratory with a faster serum sample when a rapid turn around is required.

The BD RST provides a clotted sample within 5 minutes of blood collection. The tube contains a thrombin based medical clotting agent and Gel.

With only a five minute clot time and minimal fibrin formation, the BD RST provides speed and purity.

Cat. No.	Vol. (ml)	Additive	Cap Colour	Size (mm)	Label Type	Box/Case Qty
BD Vacutainer® Rapid Serum Tube (BD RST)						
368771	4	Thrombin based medical clotting agent/gel		13x100	Paper	100/1000

Please contact us for copies of BD clinical studies relating to BD Vacutainer® RST tubes

# BD Vacutainer® EDTA Tubes



**BD Vacutainer®** EDTA tubes are used to obtain a whole blood or EDTA plasma sample. The tubes are available in a range of sizes in both plastic and glass and can be identified by a lavender cap. **BD Vacutainer®** EDTA tubes are available with a pink cap and crossmatch label for transfusion patients. (See page 16.) Generally, K2 or K3 Potassium Salt of EDTA (Ethylene Diamine Tetra Acetic acid) is used as an anticoagulant. There are no functional differences between the two additives. The physical difference between the additives is:

- K3EDTA is a liquid solution in the BD Vacutainer® Glass Tubes
- K2EDTA is a liquid solution that is spray coated onto the interior surface of the BD Vacutainer® Plus Tubes

**BD Vacutainer®** Aprotinine K3EDTA tube is available for assays that require a proteolytic enzyme inhibitor. A conventional pink cap identifies **BD Vacutainer®** Aprotinine K3EDTA tubes

Cat. No.	NHS Code	Vol. (ml)	Cap Colour	Size (mm)	Label Type	Box/Case Qty
<b>BD Vacutainer® Plastic K2EDTA tube with Lavender BD Hemogard™ Closure</b>						
367838	KFK233	3		13x75	Block	100/1000
367839	KFK171	4		13x75	Block	100/1000
367873	KFK286	6		13x100	Block	100/1000
367525	KFK367	10		16x100	Paper	100/1000
<b>BD Vacutainer® Plastic K3EDTA tube with Lavender BD Hemogard™ Closure</b>						
367836	KFK276	2		13x75	Block	100/1000
368857	KFK031	3		13x75	Block	100/1000
368860	KFK042	4		13x75	Block	100/1000
<b>BD Vacutainer® Glass Aprotinine K3EDTA tube with Pink Hemogard™ Closure</b>						
361017		5		13x75	Paper	100/1000

Mixing recommendation: EDTA tubes should be gently inverted 180° and back 8-10 times

Catalogue number 361017 does not follow the established colour code, described in ISO 6710:1995, and used by BD for the majority of our tube product portfolio. This tube is used to produce a specific type of sample and the cap colour is intended to differentiate it from regular EDTA tubes. If ordering this tube, it is important to ensure that the appropriate staff in your organisation are aware of these differences. Using the wrong tube for any given test may result in analytical error.

**Please contact us for copies of BD clinical studies relating to BD Vacutainer® EDTA Tubes**

# BD Vacutainer® Crossmatch Tubes



**BD Vacutainer®** Crossmatch tubes are available in plastic EDTA and plain clot activator tubes. They are used to obtain either a serum sample or a whole blood or EDTA plasma sample. A pink cap and a specialised crossmatch label, which is larger than the usual block label to allow more information to be recorded, identify **BD Vacutainer®** Crossmatch tubes.

Cat. No.	NHS Code	Vol. (ml)	Additive	Cap Colour	Size (mm)	Label Type	Box/Case Qty
BD Vacutainer® Plastic EDTA Crossmatch tube with Pink BD Hemogard™ Closure							
366164	KFK040	4	K2EDTA (Spray)		13x75	Crossmatch	100/1000
367941	KFK277	6	K2EDTA (Spray)		13x100	Crossmatch	100/1000
BD Vacutainer® Plastic Clot Activator Crossmatch tube with Pink BD Hemogard™ Closure							
368817	KFK278	6	Silica (Clot Act)		13x100	Crossmatch	100/1000

Mixing recommendation:	Plus Silica tubes should be gently inverted 180° and back 5-6 times EDTA tubes should be gently inverted 180° and back 8-10 times
Centrifugation Instructions:	Plus Serum tubes should be centrifuged at ≤ 1300g for 10 minutes at 25°C room temperature

These tubes do not follow the established colour code, described in ISO 6710:1995, and used by BD for the majority of our tube product portfolio. These tubes are used to produce a specific type of sample and the cap colour is intended to differentiate them from regular EDTA and serum tubes. If ordering these tubes, it is important to ensure that the appropriate staff in your organisation are aware of these differences. Using the wrong tube for any given test may result in analytical error.

# BD Vacutainer® Plasma Tubes (Heparin)



**BD Vacutainer®** Plasma tubes contain Sodium or Lithium Heparin and are used to obtain a plasma sample. The tubes are available in a range of sizes in both plastic and glass and can be identified by a green cap. The concentration of the Lithium and Sodium Heparin additive in **BD Vacutainer®** Plasma tubes is 17 International Units of Heparin/ml of blood. The additive in the Plus tube is spray coated on the inner wall, and in the glass tubes it is either lyophilised (2 and 3ml) or vacuum dried (5 and 7ml).

**BD Vacutainer®** Heparin tubes can be centrifuged immediately after collection.

Cat. No.	NHS Code	Vol. (ml)	Cap Colour	Size (mm)	Label Type	Box/Case Qty
<b>BD Vacutainer® Plastic Lithium Heparin tube with Green BD Hemogard™ Closure</b>						
368495	KFK326	2		13x75	Block	100/1000
367883	KFK281	4		13x75	Block	100/1000
367885	KFK173	6		13x100	Block	100/1000
<b>BD Vacutainer® Plastic Sodium Heparin tube with Green BD Hemogard™ Closure</b>						
367869		4		13x75	Paper	100/1000
367876	KFK279	6		13x100	Paper	100/1000
<b>BD Vacutainer® Glass Sodium Heparin tube with Green Conventional Closure</b>						
368480		10		16x100	Paper	100/1000

Mixing recommendation:	Plasma tubes should be gently inverted 180° and back 8-10 times
Centrifugation Instructions:	≤ 1300g for 10 minutes at 25°C room temperature

Please contact us for copies of BD clinical studies relating to BD Vacutainer® Plasma Tubes

# BD Vacutainer® Plasma Separator Tubes (BD PST™ II)



**BD Vacutainer® PST™ II** tubes are used to obtain and separate a plasma sample. The tubes are available in plastic in a range of sizes and can be identified by a light green cap.

**BD PST™ II** contain 17 IU/ml of Lithium Heparin to prevent coagulation of the specimen. The tubes contain an acrylic gel that forms a barrier between the cells and the plasma during centrifugation.

**BD PST™ II** gel combines the following benefits for increased laboratory efficiency:

- **Enhanced plasma purity** demonstrated by a reduction in fibrin, and in measurable white blood cells, red blood cells and platelets.<sup>1</sup>
- **Extended analyte stability** as most analytes are stable in the tube for 24hrs at 25°C.<sup>2</sup>

Cat. No.	NHS Code	Vol. (ml)	Additive	Cap Colour	Size (mm)	Label Type	Box/Case Qty
BD Vacutainer® PST™ II Plastic tube with Light Green BD Hemogard™ Closure							
367373	KFK130	3	Li Hep/Gel		13x75	Block	100/1000
367375	KFK129	4.5	Li Hep/Gel		13x100	Block	100/1000
367377	KFK128	8	Li Hep/Gel		16x100	Block	100/1000

Mixing recommendation:	Plasma Separation tubes should be gently inverted 180° and back 8-10 times
Centrifugation Instructions:	Plus <b>BD PST™ II</b> tubes - 1300-2000g for 10 minutes at 25°C room temperature

1. BD Ref. VS5924 Improved Plasma Purity of the BD Vacutainer® PST™ II Plastic Tubes  
2. BD Ref. VS5925 Analyte Stability Supports Extended Use of Plasma Collected in the BD Vacutainer® PST™ II Plastic Tubes  
3. BD Ref. VS5919 Comparison of BD PST™ Plus to BD PST™ II for 22 Chemistry Analytes and 3 Cardiac Markers

**Please contact us for copies of BD clinical studies relating to BD Vacutainer® BD PST™ II tubes**

# BD Vacutainer® Tubes for Glucose Preservation



**BD Vacutainer®** Sodium Fluoride/Potassium Oxalate and Fluoride EDTA tubes are used for glucose determinations. The tubes are available in plastic and can be identified by a grey cap.

Glucose values in unpreserved blood samples decrease quickly after collection as glucose is metabolised by the blood cells. The additives contained in **BD Vacutainer®** Fluoride/Oxalate and Fluoride EDTA tubes will stop enzymatic activity at the glycolytic pathway.

Cat. No.	NHS Code	Vol. (ml)	Cap Colour	Size (mm)	Label Type	Box/Case Qty
BD Vacutainer® Plastic Fluoride/Oxalate tube with Grey BD Hemogard™ Closure						
367934	KFK250	2		13x75	Block	100/1000
368201	KFK374	5		13x100	Paper	100/1000
368921		4		13x75	Paper	100/1000
BD Vacutainer® Plastic Fluoride/EDTA tube with Grey BD Hemogard™ Closure						
368520		2		13x75	Block	100/1000
368521		4		13x75	Block	100/1000

Mixing recommendation:	Fluoride/Oxalate tubes should be gently inverted 180° and back 8-10 times
Centrifugation Instructions:	≤ 1300g for 10 minutes 25°C room temperature

Please contact us for copies of BD clinical studies relating to BD Vacutainer® Glucose Preservation Tubes

# BD Vacutainer® Trace Element Tubes



**BD Vacutainer®** Trace Element tubes contain either a clot activator coating or EDTA with controlled trace element levels. K2EDTA tubes will provide a plasma sample and the plain tubes will provide a serum sample. **BD Vacutainer®** Trace Element tubes are available in plastic and are identifiable by a royal blue cap.

**BD Vacutainer®** Trace Element tubes contain guaranteed maximum quantities of several trace elements. These guaranteed maximum levels are as follows:

TEST	µg/litre
Arsenic	0.2
Cadmium	0.1
Calcium	150.0
Chromium	0.5
Copper	5.0
Iron	25.0
Lead	0.3
Magnesium	40.0
Manganese	1.5
Mercury	3.0
Selenium	0.6
Zinc	40.0

This information is also detailed in the product insert.

Cat. No.	NHS Code	Vol. (ml)	Cap Colour	Size (mm)	Label Type	Box/Case Qty
<b>BD Vacutainer® Plastic Plain tube with Royal Blue BD Hemogard™ Closure</b>						
368380	KFK359	6		13x100	Paper	100/1000
<b>BD Vacutainer® Plastic K2EDTA tube with Royal Blue BD Hemogard™ Closure</b>						
368381	KFK360	6		13x100	Paper	100/1000

Mixing recommendation:	Trace Element tubes should be gently inverted 180° and back 8-10 times
Centrifugation Instructions:	≤ 1300g for 10 minutes 25°C room temperature

These tubes do not follow the established colour code, described in ISO 6710:1995, and used by BD for the majority of our tube product portfolio. These tubes are used to produce a specific type of sample and the cap colour is intended to differentiate them from regular EDTA and serum tubes. If ordering these tubes, it is important to ensure that the appropriate staff in your organisation are aware of these differences. Using the wrong tube for any given test may result in analytical error.

**Please contact us for copies of BD clinical studies relating to BD Vacutainer® Trace Element Tubes**

# BD Vacutainer® ACD Tubes



**BD Vacutainer®** ACD tubes are used to obtain a whole blood or a plasma sample. **BD Vacutainer®** ACD tubes are available in glass only and are identifiable by a yellow cap.

**BD Vacutainer®** ACD tubes contain the active anticoagulant Tri-sodium Citrate with Citric Acid and Dextrose. The tube is available in two formulations: ACD solution A and ACD solution B. The concentration of additives in each solution is as follows:

ACD-	Solution A	Solution B
Sodium citrate	22.0 g/l	13.2 g/l
Dextrose	24.5 g/l	14.7 g/l
Citric acid	8.0 g/l	4.8 g/l
Antimycotic (K sorbate) reagent	0.15 g/l	0.2 g/l

Cat. No.	NHS Code	Vol. (ml)	Cap Colour	Size (mm)	Label Type	Box/Case Qty
<b>BD Vacutainer® Glass ACD Solution A tube with Yellow Conventional Closure</b>						
366645		8.5		16x100	Paper	100/1000
<b>BD Vacutainer® Glass ACD Solution B tube with Yellow BD Hemogard™ Closure</b>						
367756	KFK294	6		13x100	Paper	100/1000

Mixing recommendation: ACD tubes should be gently inverted 180° and back 8-10 times

These tubes do not follow the established colour code, described in ISO 6710:1995, and used by BD for the majority of our tube product portfolio. They have been given a yellow cap because the additive, ACD, has a similar intended purpose as CPDA described in the standard. If ordering these tubes, it is important to ensure that the appropriate staff in your organisation are aware of these differences. Using the wrong tube for any given test may result in analytical error.

# BD Vacutainer® EST™ Blood Collection Tubes



BD Vacutainer® EST tubes may be used as a discard tube, to remove the dead space from the tubing of blood collection sets. The BD EST tubes are plastic tubes and have no additive in them.

<b>Cat. No.</b>	<b>Vol. (ml)</b>	<b>Cap Colour</b>	<b>Size (mm)</b>	<b>Label Type</b>	<b>Box/Case Qty</b>
BD Vacutainer® EST™ Plastic tube with BD Pearlescent White Hemogard™ Closure					
362725	3		13x75	See Thru	100/1000

Catalogue number 362725 does not follow the established colour code described in ISO 6710:1995 and used by BD for the majority of our product portfolio. This tube is used to produce a specific type of sample and the cap colour is intended to differentiate it from regular EDTA tubes.

# BD Vacutainer® Plasma Preparation Tubes (BD PPT™)



**BD Vacutainer®** Plasma Preparation tubes are used for the collection of venous blood, which upon centrifugation separates undiluted plasma. These are used in molecular diagnostic test methods or other procedures where an undiluted plasma specimen is required.

**BD PPT™** tubes are available in plastic only and contain spray-dried K2EDTA and a separation gel that forms a barrier between the plasma and most of the cellular elements, allowing for transportation of **BD PPT™** tubes without removal of the plasma. A pearlescent white cap can identify **BD PPT™** tubes.

Centrifugation should take place within two hours after blood collection for optimum results.

Cat. No.	Vol. (ml)	Additive	Cap Colour	Size (mm)	Label Type	Box/Case Qty
<b>BD Vacutainer® PPT™ Plastic tube with BD Pearlescent White Hemogard™ Closure</b>						
362795	5	K2EDTA/Gel		13x100	See Thru	100/1000
362799	8.5	K2EDTA/Gel		16x100	See Thru	100/1000

Mixing recommendation:	Plasma Preparation tubes should be gently inverted 180° and back 8-10 times
Centrifugation Instructions:	1100-1500g for 10 minutes at 25°C room temperature

Catalogue numbers 362795 and 362799 do not follow the established colour code described in ISO 6710:1995 and used by BD for the majority of our product portfolio. These tubes are used to produce a specific type of sample and the cap colour is intended to differentiate them from regular EDTA tubes.

**Please contact us for copies of BD clinical studies relating to BD Vacutainer® PPT Tubes**

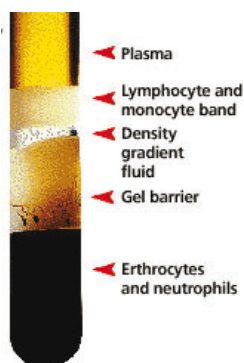
# BD Vacutainer® Cell Preparation Tubes (BD CPT™)




**BD Vacutainer®** Cell Preparation tubes are specifically designed to improve the quality of the specimen collected, the safety of processing the collected specimen, and the efficiency of molecular diagnostic test procedures.

**BD CPT™** tubes are used in the collection of whole blood and the separation of mononuclear cells. **BD CPT™** tubes are available with Sodium Citrate, which can be identified by a blue and black speckled conventional cap, and Sodium Heparin, which can be identified by a red and green speckled conventional cap.

**BD CPT™** tubes are only available in glass and contain polyester gel and a density gradient liquid. This configuration permits cell separation during a single 20 minute centrifugation step. The separated sample can be transported without being removed from the **BD CPT™** tube since the gel forms a stable barrier between the cell layers.



Cat. No.	Vol. (ml)	Additive	Cap Colour	Size (mm)	Label Type	Box Qty
<b>BD Vacutainer® CPT™ Glass tube with Blue/Black speckled Conventional Closure</b>						
362781	4	Sodium Citrate/Ficoll		13x100	See Thru	60
362782	8	Sodium Citrate/Ficoll		16x125	See Thru	60
<b>BD Vacutainer® CPT™ Glass tube with Red/Green speckled Conventional Closure</b>						
362780	8	Sodium Heparin/Ficoll		16x125	See Thru	60

Mixing recommendation:	Cell Preparation tubes should be gently inverted 180° and back 8-10 times
Centrifugation Instructions:	1500-1800g for 15-20 minutes at 25°C room temperature

# BD P100 Kit



The **BD™ P100 Kit** is a Blood Collection System for use in clinical proteomics research. **The BD™ P100** tubes contain proprietary stabilizers that immediately solubilise during blood collection, enhancing recovery and preservation of plasma analytes:

- Sterile and ready to use
- No reconstitution required
- No secondary transfer steps
- Novel non gel separator

This product is for research use only and therefore the use of this product for diagnostic procedures and patient management is strictly prohibited. Neither the clinical utility nor the performance characteristics of the tube as part of an in vitro diagnostic procedure has been established.

#### BD™ P100 Blood Collection Tube specification:

Total Blood draw volume	8.5ml
Plasma volume	3.5ml
Anticoagulant (Spray dried)	K2 EDTA
Additive (Lyophilized)	Proprietary Protein stabilizer
Storage Prior to use	2° to 8°C

Cat. No.	Quantity
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#### BD™ P100 Kit

366456	1
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#### The BD™ P100 Kit contains the following:

- 12 BD™ P100 Blood Collection Tubes for use in Protein Analysis: six (6) tubes/foil pouch, two (2) foil pouches/kit
- 12 BD Vacutainer® Single Use Tube Holders
- 12 BD Vacutainer® Safety-Lok™ Blood Collection Set, 21G Butterfly Needle, 12" tubing
- 1 Tube Instructions for Use (included in tube box)
- 1 Research Use Only Certification Card (included in tube box)

**\*BD™ P100 is sold directly by BD Diagnostics - Preanalytical Systems - not available through distributors.**

# BD P700 Kit



The BD™ P700 is an evacuated blood collection tube that provides a means for the collection and separation of plasma to be used in basic metabolic research. This product is for research use only and therefore the use of this product for diagnostic procedures and patient management is strictly prohibited.

The BD™ P700 tube contains spray-dried K2EDTA anticoagulant and a proprietary DPP-IV Inhibitor that enables preservation of GLP-I.

## BD™ P700 Blood Collection Tube specification:

Total Blood draw volume	3 ml
Plasma volume	1.5ml
Anticoagulant (Spray dried)	5.4 mg K2 EDTA
Additive (Lyophilized)	Proprietary Dipeptidyl Peptidase IV (DPP-IV) Inhibitor
Storage Prior to use	2° to 8°C

## Cat. No. Quantity

### BD™ P700 Kit

366473	1
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## The BD™ P700 Kit contains the following:

20 BD™ P700 Blood Collection Tubes for basic metabolic research: Ten (10) tubes/foil pouch, two (2) foil pouches/kit

## We would recommend the following blood collection devices for use with the BD™ P700 Kit:

- |        |  |
|--------|--|
| 368652 | BD Vacutainer® Safety-Lok™ Pre-Attached Blood Collection Set |
| 368653 | BD Vacutainer® Safety-Lok™ Pre-Attached Blood Collection Set |

**\*BD™ P700 is sold directly by BD Diagnostics - Preanalytical Systems - not available through distributors.**

# PAXgene™ Blood RNA System



The **PAXgene™ Blood RNA System** is a revolutionary, enabling technology that consolidates and integrates the key steps of whole blood collection, intracellular RNA stabilization, and RNA purification. By minimizing the instability of intracellular RNA, the system provides enhanced accuracy of RNA analysis.

The **PAXgene™** system is standardised on established BD Vacutainer® technology, enhancing the patient and health care worker safety, providing sample protection, and ensuring consistent and accurate blood draw volumes.

The **PAXgene™** tube contains a proprietary reagent that immediately stabilises intracellular RNA for three days at room temperature and five days at 4°C. Paxgene tubes can be frozen at -20°C or <-70°C for long term storage.

The **PAXgene™** kit employs a unique version of Qiagen's proven separation and purification silica membrane technology. The purification process is designed to provide high quality RNA from samples that have been stabilized the **Paxgene™ Blood RNA tube** reagent.

The **PAXgene™ Blood RNA System** CE/IVD provides clinical laboratories, pharmaceutical companies, CRO's and research institutions with a completely integrated approach to whole blood RNA stabilization and one integrated product from blood collection to pure RNA.

Cat. No.	Quantity
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PAXgene™ Tubes	
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762165	100
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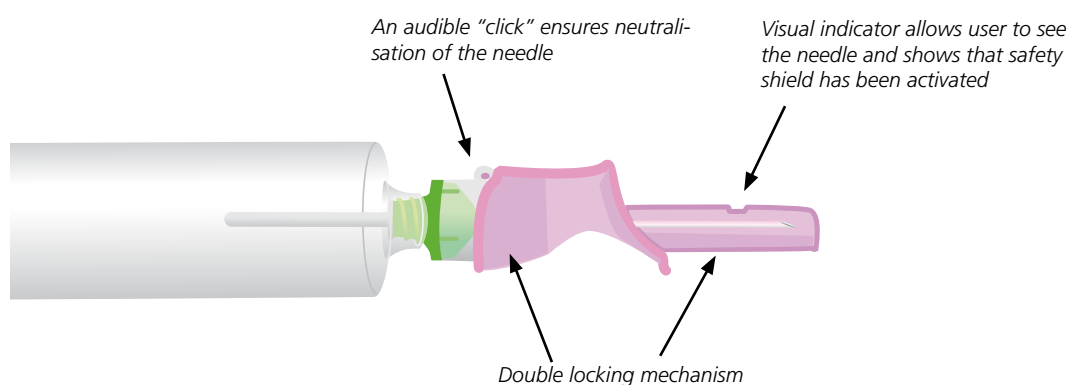
**\*PAXgene™ tubes are sold directly from BD Diagnostics - Preanalytical Systems - Not available through distributors.**  
**The PAXgene™ kits are available from Qiagen on 01293 422911.**





# BD Eclipse™ Safety Needle



**BD Vacutainer® Eclipse™** needles incorporate additional safety into the traditional **BD Vacutainer®** blood collection needle, with no need to change the blood collection technique. The built-in safety shield is in alignment with the bevel of the needle and can be activated immediately after blood collection using a one-handed continuous movement. There is no need for a work table or surface to activate it. The safety shield permanently locks into place, significantly reducing the risk of accidental needlestick injury and infection transmission. **BD Eclipse™** needles are compatible with all **BD Vacutainer®** holders and tubes.

**BD Vacutainer® Eclipse™** now available with **pre-attached holder** providing greater ease of use and aseptic procedure.



Cat. No.	NHS Code	Gauge	Length	Shield Colour	Box/Case Qty
<b>BD Vacutainer® Eclipse™ Blood Collection Needles</b>					
368609	KFK217	21G	1.25"		48/480
368610	KFK216	22G	1.25"		48/480
<b>BD Vacutainer® Eclipse™ Blood Collection Needles with Pre-attached Holder</b>					
368650	KFK351	21G	1.25"		100
368651	KFK352	22G	1.25"		100

Please contact us for copies of BD clinical studies relating to BD Vacutainer® Eclipse™ needles

# BD Vacutainer® Flashback Blood Collection Needle






The new **BD Vacutainer® Flashback** blood collection needle is a multi-sample needle that provides instant confirmation of needle placement, through a unique visual flashback indication.

The **BD Vacutainer® Flashback** needle avoids the need to probe for a vein, as well as the potential for multiple sticks of the same patient in cases where the vein is hard to find. This ensures easy training of personnel and full utilisation of closed system collection.

The **BD Vacutainer® Flashback** needle ideally complements our range of blood collection devices and accessories.



<b>Cat. No.</b>	<b>NHS Code</b>	<b>Gauge</b>	<b>Length</b>	<b>Shield Colour</b>	<b>Box/Case Qty</b>
<b>BD Vacutainer® Flashback Blood Collection Needles</b>					
301746	KFK361	21G	1"		50/1000
301747	KFK362	22G	1"		50/1000
301748	KFK364	22G	1.25"		50/1000

# BD Vacutainer® Blood Collection Needles



**BD Vacutainer®** needles can be used for multiple tube samples. **BD Vacutainer®** needles have an advanced low-angle bevel design and are coated with silicone, a low friction lubricant, ensuring very gentle and smooth vein entry. Individual laser quality control maintains the highest quality levels. **BD Vacutainer®** needles are available with a 20, 21 or 22 gauge needle.

**BD Vacutainer®** single-sample veterinary needles are available with an 18 or 20 gauge needle.

**BD Vacutainer®** Luer adapters are sterile devices with a multi-sampling valve and are designed for use with a catheter or hypodermic needle to collect blood with **BD Vacutainer®** blood collection tubes. They are also ideal for use with any female luer fitting.

<i><b>Cat. No.</b></i>	<i><b>NHS Code</b></i>	<i><b>Gauge</b></i>	<i><b>Length</b></i>	<i><b>Shield Colour</b></i>	<i><b>Box/Case Qty</b></i>
<b>BD Vacutainer® Multi-sample Needles</b>					
360210	KFK290	22G	1"		100/1000
360211	KFK642	22G	1.5"		100/1000
360212	KFK291	21G	1"		100/1000
360213	KFK104	21G	1.5"		100/1000
360214	KFK118	20G	1"		100/1000
360215	KFK039	20G	1.5"		100/1000
<b>BD Vacutainer® Single-sample Needles (Veterinary)</b>					
360745		20G	1"		100/1000
360747		18G	1"		100/1000
360748		18G	1.5"		100/1000
<b>BD Vacutainer® Luer Adapter</b>					
367300	KFK036	N/A	N/A		100/1000

# BD Vacutainer® Push Button Blood Collection Set



The **BD Vacutainer® Push Button** Blood Collection Set provides activation with a simple push of a button which ensures irreversible needle lock. The unique technology allows needle withdrawal from the vein and automatic retraction into the device, giving immediate protection against needlestick injury. The **BD Vacutainer® Push Button** Blood Collection Set allows for easy activation of the safety mechanism while attending to the patient/venipuncture site, and features:

- Safety activation confirmed by an audible click
- Blood flashback seen clearly through the translucent body
- Ease of use reducing training requirements

**BD Vacutainer®** EST tubes may be used as a discard tube, to remove the dead space from the tubing of blood collection sets. The BD EST tubes are plastic tubes and have no additive in them. See page 23 for details.

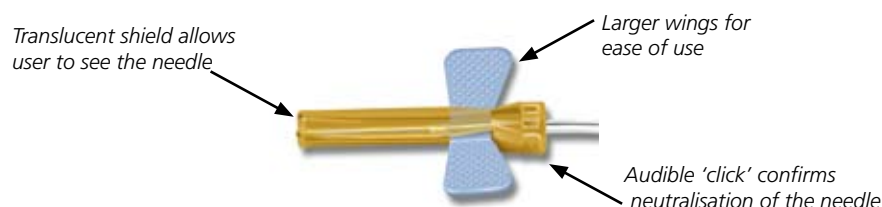
<b>Cat. No.</b>	<b>NHS Code</b>	<b>Gauge</b>	<b>Length</b>	<b>Shield Colour</b>	<b>Box/Case Qty</b>
<b>BD Vacutainer® Push Button Blood Collection Sets with Luer Adapter</b>					
367338	KFK324	21G	0.75", 7" tubing		50/200
367344	KFK363	21G	0.75", 12" tubing		50/200
367336	KFK323	23G	0.75", 7" tubing		50/200
367342	KFK366	23G	0.75", 12" tubing		50/200
367335		25G	0.75", 7" tubing		50/200
367341		25G	0.75", 12" tubing		50/200
<b>BD Vacutainer® Push Button Blood Collection Sets without Luer Adapter</b>					
367326		21G	0.75", 12" tubing		50/200
367324		23G	0.75", 12" tubing		50/200
367323		25G	0.75", 12" tubing		50/200












# BD Vacutainer® Safety-Lok™ Blood Collection Sets



BD Vacutainer® Safety-Lok™ Blood Collection Sets are sterile closed systems for drawing blood from difficult veins, such as the back of the hand, and their use helps to minimise the risk of false positives in the case of collection of blood cultures. BD Safety-Lok™ Blood Collection Sets have an integrated protective shield, which permanently locks over the needle after venipuncture. BD Safety-Lok™ Blood Collection Sets have proven their efficiency in the reduction of needlestick injuries, dividing the risk by 10.<sup>1</sup> BD Vacutainer® Safety-Lok™ Blood Collection Sets are available with a 21, 23 or 25 gauge needle and have a range of latex-free flexible tubing lengths. BD Vacutainer® Safety-Lok™ is now available with a pre-attached BD holder providing greater ease of use, and an aseptic environment for blood culture sampling.

BD Vacutainer® EST™ tubes are used to remove dead space from Blood Collection Sets (see page 23).



Cat. No.	NHS Code	Gauge	Length	Shield Colour	Box/Case Qty
BD Vacutainer® Safety-Lok™ Blood Collection Sets					
367282	KFK253	21G	0.75", 7" tubing		50/200
367286	KFK056	21G	0.75", 12" tubing		50/200
367284	KFK254	23G	0.75", 7" tubing		50/200
367288	KFK058	23G	0.75", 12" tubing		50/200
367295	KFK336	25G	0.75", 7" tubing		50/200
BD Vacutainer® Safety-Lok™ Blood Collection Sets without luer adapter					
367246		21G	0.75", 12" tubing		50/200
367247		23G	0.75", 12" tubing		50/200
BD Vacutainer® Safety-Lok™ Blood Collection Sets with Pre-attached Holder					
368654	KFK348	21G	0.75", 7" tubing		25/200
368652	KFK347	21G	0.75", 12" tubing		25/200
368655	KFK350	23G	0.75", 7" tubing		25/200
368653	KFK349	23G	0.75", 12" tubing		25/200

1. Les Accidents d'Exposition au Sang aux HCL en 1998 - article; CDC - Prevention of NSI's in HCW's, 03/2000]

# BD Vacutainer® Holders and Adapters



BD Vacutainer® single-use holders are compatible with all BD Vacutainer® tubes and needles, including BD Eclipse™ Safety Needles, BD Safety-Lok™ Blood Collection Sets, BD Push Button Blood Collection Sets and BD Flashback needles. BD Vacutainer® single-use holders are also compatible with BD BACTEC™ blood culture bottles.

BD Vacutainer® brand offers two multiple sample adapters to meet varying blood collection needs:

## The BD Vacutainer® Luer-Lok™ Access Device

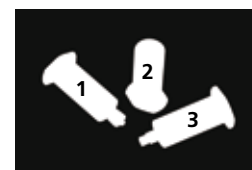
is a preassembled multisample BD Luer-Lok™ and holder which is compatible with female luer connections or IV ports designed for luer access and has a blue colour-coded connection to provide easy differentiation from other holder based-products

## The BD Vacutainer® Blood Transfer Device

is a pre-assembled and easy-to-use device designed with safety in mind. It is used for needleless specimen transfer from a syringe to an evacuated tube or blood culture bottle and has a red colour-coded connection to provide easy differentiation from other holder based products.

The adapters offer the following benefits:

- **Individually packaged and sterile** for use when a sterile holder is necessary.
- **Safe** as they are closed systems reducing the risk of transfer related injuries.
- **Single-use** eliminating the risk of contamination.



1. 364902
2. 364815
3. 364810

Cat. No.	NHS Code	Description	Colour	Box/Case Qty
Holders for use with BD Vacutainer® Multi Sample Needles				
364815	KFK037	One Use holder	White	250/1000
BD Luer Adapters with Pre-Attached Holders				
364810	KFK400	Blood Transfer Device (with Female Luer Adapter)	White	100/200
364902	KFK399	Luer-Lok™ Access Device	White	100/200

Please contact us for copies of BD clinical studies relating to BD Vacutainer® Blood Transfer Device
















# BD Microtainer® Tubes



BD Microtainer® tubes are used for the collection of capillary blood from skin puncture. BD Microtainer® tubes come with a variety of additives for various tests, have visible fill lines and are all colour-coded as standard BD Vacutainer® tubes making them easy to identify. BD Microtainer® tubes are also available for light sensitive analytes. BD Microtainer® labels are available from BD Customer Services Department, please contact 01865 781699.

BD Microtainer® tubes with BD Microgard™ closure have an integrated collection scoop, along with a wider diameter (8mm) for ease of collection and improved mixing ensuring a quality sample is collected. Additionally, the BD Microgard™ closure helps protect the healthcare worker from exposure to potentially infected blood with the “twist assist” cap which reduces the risk of splatter upon removal of the cap. BD Microtainer® tubes with BD Microgard™ closure can also be used with a tube extender to increase the length to 75mm, for use in 13mm x 75mm racks.

BD Microtainer® tubes are also available with Flotop collector and closure plug.

Cat. No.	NHS Code	Additive	Cap Colour	Box/Case Qty
BD Microtainer® tube with BD Microgard™ Closure				
365964	KCM058	Plain		50/200
365968	KCM059	BD SST™ Clot Activator/Gel		50/200
365979	KCM060	BD SST™ Amber Clot Activator/Gel		50/200
365975	KCM002	K2EDTA		50/200
365966	KCM062	Lithium Heparin		50/200
365986	KCM063	BD PST™ Lithium Heparin/Gel		50/200
365988	KCM064	BD PST™ Amber Lithium Heparin/Gel		50/200
365993	KCM067	Sodium Fluoride EDTA		50/200
BD Microtainer® tube with Flotop Collector				
365950	KCM004	Plain		50/200
365951	KCM001	BD SST™ Clot Activator/Gel		50/200
365954	KFK005	BD SST™ Amber Clot Activator/Gel		50/200
365952	KFK006	Lithium Heparin		50/200
365953	KCM003	BD PST™ Lithium Heparin/Gel		50/200
365955	KCM069	K2EDTA		50/200
BD Microcollection Accessories				
368933	KFK312	Extender for BD Microtainer® with BD Microgard™		50/200

Please contact us for copies of BD clinical studies relating to BD Vacutainer® Microtainer® tubes with BD Microgard™ closure.






# BD Capillary Sampling



BD Vacutainer® brand supplies a range of lancets for capillary blood collection.

The **BD Microtainer® Contact-Activated Lancet** is the next generation of safety engineered lancets. The BD Contact - Activated lancet enhances user comfort through its ergonomic design. The lancet is contact activated which facilitates a consistent puncture depth for easier sampling and covers only a small area at contact point which improves visibility of the desired puncture site.

**BD Microtainer® Quikheel™** incision devices are safe, easy and virtually painless blood sampling devices designed for heelsticks in premature infants, newborns and babies. The **BD Quikheel™** design uses a sweeping motion which minimises pain for the patient. They have an instant trigger action that provides a rapid automated incision of a consistent depth and width that ensures superior blood flow. The extra thin surgical steel blade is permanently retractable, minimising the possibility of injury and preventing re-use.

<b>Cat. No.</b>	<b>NHS Code</b>	<b>Lancet Type</b>	<b>Colour</b>	<b>Depth</b>	<b>Width/Gauge</b>	<b>Blood Volume</b>	<b>Box/Case Qty.</b>
<b>BD Microtainer® Contact - Activated Lancet</b>							
366592	FTM107	Needle		1.5mm	30g	Low Single Drop	200/2000
366593	FTM108	Needle		1.8mm	21g	Medium Flow	200/2000
366594	FTM110	Blade		2.00mm	1.5mm	High Flow	200/2000
<b>BD Microtainer® Quikheel™ Single-use Safety Incision Device</b>							
368102	FTM034	Blade		0.85	1.75	Medium to High	50/200
368103	FTM035	Blade		1.00	2.50	High	50/200



**Please contact us for copies of BD clinical studies relating to BD Vacutainer® Quikheel™ lancets and BD Microtainer® Contact -Activated Lancets.**

# Critical Care Collection



**BD Critical Care** blood collection syringes can be used to collect blood from a patient's artery. They contain spray-dried calcium-balanced Heparin that enables the specimen to be analysed for ABG's and a host of critical care analytes. **BD Vacutainer® Preset™** syringes are used for critical care testing on whole blood. The syringe plunger can be preset to a desired volume. As arterial blood fills the syringe, the residual air is expelled through the self-venting membrane.

**BD A-Line™** syringes are used for blood collection by manual aspiration. They can be used for arterial or venous blood collection from an arterial or IV line, and exist in 1ml slip tip, 3ml slip tip and 3ml **BD Luer-Lok™** syringes. A green **BD Hemogard™** type tip cap is available on all 3ml syringes with **BD Luer-Lok™** for airtight and leak-proof samples. The green cap reflects colour coding of Lithium Heparin anticoagulant to assist identification in the lab.

**BD Vacutainer® Eclipse™** safety needles for arterial blood collection are available offering enhanced safety for the healthcare worker. The safety shield is integrated and is not an accessory to the needle. The needle bevel and safety shield are in alignment, ensuring no extra manipulation. The one-handed technique ensures no change in the collection technique and the double-locking mechanism is both visually and audibly confirmed for the healthcare worker.











Cat. No.	NHS Code	Description	Vol. (ml)	Qty
<b>BD A-Line™</b>				
364356	FWC082	<b>BD A-Line™</b> Slip Tip	1	100
364378	FWC084	<b>BD A-Line™ Luer-Lok™ BD Hemogard™</b>	3	100
364376	FWC085	<b>BD A-Line™</b> Slip Tip	3	100
<b>BD Preset™ without Needle</b>				
364416	FWC086	<b>BD Preset™</b> Slip Tip	1	100
364316	FWC091	<b>BD Preset™ Luer-Lok™ BD Hemogard™</b>	3	100
<b>BD Preset™ with Needle</b>				
364413	FWC087	<b>BD Preset™</b> Slip Tip 23G x 1"	1	100
364415	FWC088	<b>BD Preset™</b> Slip Tip 25G x 1"	1	100
364327	FCW093	<b>BD Preset™ Luer-Lok™ BD Hemogard™ Tip Cap</b> 23G Needle	3	100
<b>BD Preset™ with Safety Needle</b>				
364390	FWC094	<b>BD Preset™ Luer-Lok™ BD Hemogard™ Tip Cap</b> 22G BD Eclipse™	3	100
364391	FWC095	<b>BD Preset™ Luer-Lok™ BD Hemogard™ Tip Cap</b> 23G BD Eclipse™	3	100
364393	FCW081	<b>BD Preset™ Luer-Lok™ BD Hemogard™ Tip Cap</b> 25G BD Eclipse™	3	100

Please contact us for copies of BD clinical studies relating to BD Vacutainer® Critical Care syringes.

# BD Vacutainer® Urine Collection Products



**BD Vacutainer®** urine products for the collection and transport of urine specimens offer the same level of safety and standardisation as BD blood collection products. For urine analysis, BD provides plastic evacuated tubes with or without preservative to be used with BD collection devices, specimen cups, 24 hour 3L containers and transfer straws. For microbiology determinations, BD offers a complete range of plastic paediatric and adult boric acid based preservative tubes, all clinically validated for 48 hour specimen stability at room temperature. Once sampled from the various patient collection sites, the BD leak proof evacuated urine tubes can be safely transported to the laboratory for analysis. The **BD Vacutainer®** closed urine collection and transport systems are designed to provide accurate patient results with reduced risk of healthcare worker exposure to hazardous specimens.

Cat. No.	Description	Cap Colour	Vol (ml)	Size (mm)	Box/Case Qty
<b>Plastic Urinalysis Tubes</b>					
368500	Round Bottom/BD Hemogard™		4	13x75	100/1000
368501	Round Bottom/BD Hemogard™		6	13x100	100/1000
364992	Conical Bottom/Conventional		8	16x100	100/1000
365000	Conical Bottom/BD Hemogard™		9.5	16x100	100/1000
364938	Round Bottom/Conventional		10	16x100	100/1000
364915	Round Bottom/BD Hemogard™		11	16x100	100/1000
<b>Plastic Microbiology C&amp;S Tubes</b>					
364958	Round Bottom/BD Hemogard™		4	13x75	100/1000
364959	Kit with Transfer Straw/BD Hemogard™		4	13x75	100/1000
364944	Kit with Transfer Straw/BD Hemogard™		10	16x100	100/1000
364955	Round Bottom/BD Hemogard™		10	16x100	100/1000
Cat. No	Description		Vol (ml)		Box/Case Qty
<b>Collection Accessories</b>					
364941	Sterile Specimen Collection Cup		120ml		100/200
364940	Specimen Transfer Straw				100/1000

## References:

**Samples: From Patient to the Laboratory.** The impact of pre-analytical variables on the quality of laboratory results - W.G. Guder et al., Git Verlag 2003 3rd edition, page 28-30.

**General Principles of Specimen Collection and Transport** - Michael L. Wilson, Diagnostic Microbiology Updates, Dec. 1995.

**Microbiological evaluation of a commercial transport system for urine samples** - I. Eriksson, R. Lindman and M. Thore, Scand J Clin Invest 2002; 62: 325-336.

**Preservation of urine for Flow Cytometric and visual microscopic testing** - T Kouri et al., Clin Chem 48:6 900-905 (2002).

**Evaluation of BD Vacutainer® urine culture and sensitivity (C&S) Plus tube vs. BD Vacutainer® urine culture and sensitivity glass tube for microbiological testing - patient urine** - Internal study - VS7099 Plus 8/2003.

**Please contact us for copies of BD clinical studies relating to BD Vacutainer® Urine Tubes.**

# BD Accessories



BD offers the **BD Vacutainer® Stretch** Tourniquet which is a latex-free tourniquet. One study has found that blood contamination of tourniquets was common, occurring in 31% of tourniquets examined<sup>1</sup>. Use of a single-use tourniquet will minimise the risk of infection to healthcare workers and patients. The **BD Vacutainer® Stretch** Tourniquet is packaged in an easy-to-use dispenser which is also convenient for storage purposes.

BD offers a needle disposal container and self adhesive bracket for safe needle disposal. **BD Vacutainer®** - Preanalytical Systems offers the **DIFF-SAFE®** blood dispenser for preparing blood slides.

<b>Cat. No.</b>	<b>NHS Code</b>	<b>Description</b>	<b>Box/Case Qty</b>
<b>BD Vacutainer® Stretch Tourniquet</b>			
367204	FWJ009	<b>BD Stretch™</b> Latex-Free Single-use Use Tourniquet	25/500
<b>BD Vacutainer® Miscellaneous products</b>			
368697	KFK001	Blood Collection Tray (holds up to 80 tubes)	21
366005	KEV016	<b>DIFF-SAFE®</b> Blood Dispenser	1000/10000

1. Forester G, Joline C, Wormser GP. Blood Contamination of tourniquets used in routine phlebotomy. Am J Inf Control 1990; 18:386-90

DIFF-SAFE is a registered trademark of Alpha Scientific Corporation

# BD Transportation Products



**BD Diagnostics Preanalytical Systems** are proud to introduce an innovative, validated and integrated transport solution that complies with normalization (P650 and ADR for dangerous goods transportation) and fits any type of biological sample transported. It also allows tracking and validation of preanalytical variables generated by transport conditions (Time and Temperature parameters) to comply with ISO 15189:2007.

## Containment Products

### **BD Stands**

- Several sizes and shapes, keeping samples in upright position

### **BD Transport**

- Secondary containers that can be used alone for internal transportation
- Tertiary receptacles dedicated to the safe transit of diagnostic specimens in compliance with European directives.

## Tracking and Measurement Products

### **BD T&T®**

- The BD T&T® system allows the monitoring of critical variables (time and temperature) of diagnostic specimens transported both within and outside the hospital

### **BD T&T® Software**

- Allows the complete and advanced management and record of biological sample transportation parameters.

# Product Quality Statement

## Product Compliance

**BD Vacutainer®** Blood Collection Tubes and ancillary equipment are (non Annex II) In-Vitro Diagnostic Medical Devices. These comply with the requirements described in the European In Vitro Diagnostic Medical Device Directive 98/79/EC.

**BD Hardpak™** III Blood Collection Needles, **BD Vacutainer®** Blood Collection Sets, **BD Safety-Lok™** Blood Collection Sets, **BD Microlance™** Lancets and **Arterial Blood Gas Syringes** with needles are (class IIa) Medical Devices and as such, comply with the requirements of the European Medical Device Directive, 93/42/EEC.

All product unit labels ( and most packaging levels ) bear the CE mark, demonstrating conformity to the above Directives.

The UK manufacturing plant, which supplies most European product, is certificated to ISO 9000:2000, ISO 13485:2003 and ISO 14001:2003. As a supplier to the US market the plant is also subject to FDA inspection and therefore holds an FDA establishment registration certificate. Copies of all these certificates can be provided upon request.

Other BD manufacturing plants carry similar certification, which can also be provided upon request.

All products are designed and manufactured in accordance with the relevant international and or European standards. This includes but is not limited to ISO 6710 ( for blood collection tubes ) ISO 6009 ( for blood collection needles ), EN 980 ( for symbols used on product labelling ).

The product shelf life is based on data from stability testing and varies according to specific products. All expiry dates are clearly printed on product unit labels.

## Clinical Data

Prior to launching a new product BD conducts extensive clinical testing and data can be provided upon request.

Whenever changing any manufacturer's blood collection tube type, size, handling, processing or storage condition for a particular laboratory assay, the laboratory personnel should review the tube manufacturer's data to establish/verify the reference range for a specific instrument/reagent system. Based on such information, the lab can then decide if a change is appropriate.

## Product sterilisation

All products are sterilised using either gamma irradiation in accordance with ANSI/AAM/ISO 11137 - 1995 "Sterilisation of Health Care Products (Requirements for Validation and Routine Control - Radiation Sterilisation)", Ethylene Oxide (EtO) in accordance with ISO 11135 - 1994 "Validation and Routine Control of Ethylene Oxide Sterilisation" or Moist Heat Sterilisation in accordance with EN554 : 1994 "Sterilisation of Medical Devices - Validation and Routine Control of Sterilisation by Moist Heat". Microbiological environmental assessment for bio-burden levels is conducted regularly.

The sterilisation of **BD Vacutainer®** products is controlled by European Standards:

<b>EN 550 : 1994</b>	Sterilisation of medical devices - Validation and routine control of ethylene oxide sterilisation
<b>EN 552 : 1994</b>	Sterilisation of medical devices - Validation and routine control of sterilisation by irradiation
<b>EN 554 : 1994</b>	Sterilisation of medical devices - Validation and routine control of sterilisation by moist heat
<b>EN 556 : 1995</b>	Requirement for terminally sterilised devices to be labelled "STERILE"



British Standards Institution (BSI) - Certificate of Registration - Compliance with BS EN ISO 9001 : 2000



British Standards Institution (BSI) - Certificate of Registration - Compliance with ISO 13485 : 2003



















BSI - Environmental Management System - Certificate of Registration- Compliance with ISO 14001 : 2004



BSI - EC Certificate CE00362 (effective March 2004)

## Additional Information

 <p>The CE mark, signifying compliance with the European IVD MD Directive, 98/79/EC</p>	
 <p>Catalogue or re-order number</p>	 <p>Lot number or batch number</p>
 <p>Use by, expires or best before</p>	 <p>Use once or do not reuse</p>
 <p>Sterilized by moist heat</p>	 <p>Sterilised by irradiation</p>
 <p>Read instruction leaflet before use</p>	 <p>Sterilized by Ethylene Oxide gas</p>
 <p>Protect from sunlight (may show temperature range)</p>	 <p>Protect from any light source</p>
 <p>Fragile</p>	 <p>Storage temperature range</p>
 <p>This way up</p>	 <p>Recycle</p>
 <p>Date of manufacture</p>	<p><b>SN</b> Serial number</p>

<b>K2E</b>	EDTA - Dipotassium salt
<b>K3E</b>	EDTA - tripotassium salt
<b>N2E</b>	EDTA - disodium salt
<b>9NC</b>	Trisodium citrate 9:1
<b>4NC</b>	Trisodium citrate 4:1
<b>FX</b>	Fluoride/Oxalate
<b>FE</b>	Fluoride/EDTA
<b>FH</b>	Fluoride/Heparin
<b>LH</b>	Lithium Heparin
<b>NH</b>	Sodium Heparin
<b>Z</b>	None (no additive)

BD also holds the Investors in People award:



### Becton Dickinson UK Limited General Conditions of Sale

For General Conditions of Sale, please refer to [www.bdeurope.com/uk](http://www.bdeurope.com/uk).

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**BD Vacutainer Sales Specialist .....**

**Contact Details**

Telephone .....

E-Mail .....



# BD Vacutainer® products are available from:

## BD in Ireland

### care of Unitech Ltd.

Unitech House, Magna Drive, Customer Service: (01) 404 8350  
Magna Business Park, City West Fax: (01) 404 8352  
Dublin

## UK

### NHS Supply Chain

West Way Cotes Park Industrial Estate, Tel: 01773 724000  
Alfreton, Derbyshire DE55 4QJ Fax: 01773 724225

### Southern Syringe Services Ltd.

London Head Office Tel: 0870 873 4901  
Fax: 0870 873 4902  
E-mail: [sales@southern-syringe.co.uk](mailto:sales@southern-syringe.co.uk)

Bristol Depot Tel: 0870 873 4911  
Fax: 0870 873 4910  
E-mail: [bristol@southern-syringe.com](mailto:bristol@southern-syringe.com)

Glasgow Depot Tel: 0870 873 4913  
Fax: 0870 873 4912  
E-mail: [cumbernauld@southern-syringe.com](mailto:cumbernauld@southern-syringe.com)

Leicester Depot Tel: 0870 873 4916  
Fax: 0870 873 4917  
E-mail: [leicester@southern-syringe.com](mailto:leicester@southern-syringe.com)

Manchester Depot Tel: 0870 873 4918  
Fax: 0870 873 4919  
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# BD

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