

*fisher*brand

# Fisherbrand Lab Essentials

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Fisher Scientific is committed to providing quality products at affordable prices through its trusted proprietary Fisherbrand range of products. Fisherbrand offers a broad selection of laboratory supplies and consumables covering a diverse range of applications such as chromatography, liquid handling, electrophoresis, pH and electrochemistry. It's the smart way to achieve cost savings over branded products without having to compromise on quality.



In addition to an extensive portfolio of Fisherbrand equipment and consumables, Fisher Scientific is your partner of choice for chemicals and bioreagents. Fisher Chemical and Fisher BioReagents are leaders in the delivery of convenience, quality and consistency to many research sectors including Academia, Pharmaceutical, Biotechnology and Healthcare.

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- Fisher BioReagents offers over 1,000 products dedicated to molecular biology research, biochemistry and cellular biology. It is your single source for high purity products

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**Fisher Chemical**

**Fisher BioReagents™**

**Together Fisherbrand, Fisher Chemical and Fisher BioReagents offer you reliable and essential laboratory products, helping you to produce your best work each and every day.**

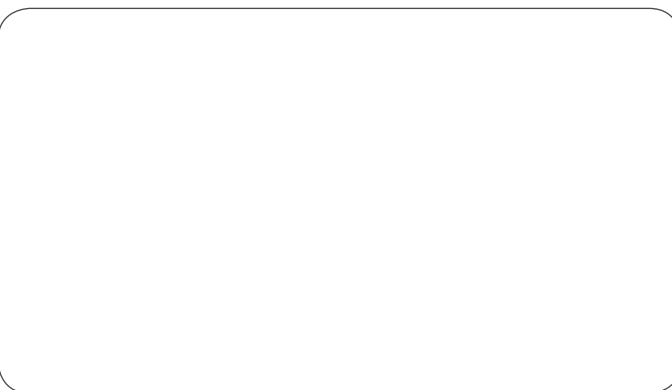
There are over 10,000 products within the Fisherbrand portfolio, with new products constantly being introduced. All Fisherbrand products are manufactured to the highest standards and undergo rigorous quality assurance and testing procedures to ensure that they deliver on our promise of quality, reliability and value. That is why when you see the blue Fisherbrand logo you know it's a trusted partner.



This catalogue is dedicated to providing you with a comprehensive selection of key Fisherbrand products as well as an introduction to our most popular Fisher Chemical and Fisher BioReagents. It features a broad range of consumables, equipment, chemicals and bioreagents, so whether you are working on the bench, in the freezer, in the hood, on the shelf or in the field, every space in your lab is a perfect place for one of our products.

If you are unable to find your perfect product or just need some further information we are here and ready to respond to your enquiries.

For more information contact your local Fisher Scientific distributor.

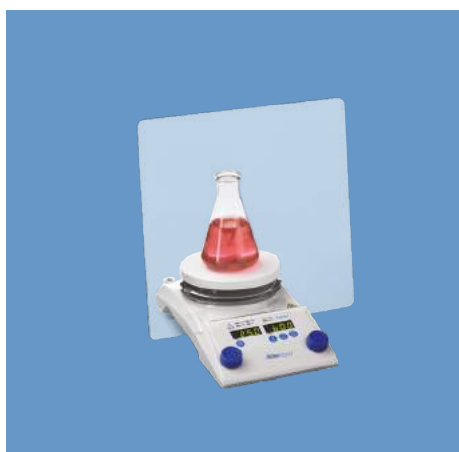


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## BATHS

Optimise your cooling and heating applications with a comprehensive range of block heaters and general purpose or shaking water baths and, additionally, enhance your cleaning results with a wide choice of ultrasonic cleaner bath units. Whatever your requirement, all our Fisherbrand baths have a compact bench footprint and user-friendly operation making them the perfect choice for your lab.

## Baths, block digital dry, Isotemp™

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Fisherbrand Isotemp Digital Dry Baths/Block Heaters offer a range of configurations with interchangeable modular blocks for a variety of application needs. Designed for basic to advanced applications with a maximum temperature of 130°C, a timer and available in 1, 2 and 4 block sizes.



- Digital controls and display of time and temperature
- Advanced internal temperature sensing probe for outstanding temperature accuracy and control
- Precise temperature control with PID circuit
- Temperature calibration enables to offset the temperature to desired value
- Timer allows the user to accurately monitor the heating time
- Wide range of interchangeable aluminum alloy heat blocks provide versatility and allow for easy cleaning and disinfecting
- Powder-coated steel body construction ensures durability
- Built-in over-temperature protection device warrants sample and user safety
- Unit must be ordered with block(s)
- Warranty: Two years

Cat. No	Description	Temp. range	Height, mm	Width, mm	Length, mm	Blocks	Time to max. temp	Pack qty
15387928	Single block dry bath	Ambient +5° to 130°C	100	200	288	Single	≤ 20 min. 30° to 130°C	1
15397928	Dual block dry bath	Ambient +5° to 130°C	100	200	318	Dual	≤ 20 min. 30° to 130°C	1
15317938	Four block dry bath	Ambient +5° to 130°C	100	200	450	Four	≤ 20 min. 30° to 130°C	1

## Blocks for Isotemp™ digital dry baths/block heaters

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- A wide selection of block accessories for the Fisherbrand digital and touch screen dry baths/block heaters (not compact models)
- Blocks for most tube sizes and applications



Cat. No	Description	Number of places	Pack qty
15327948	1 x 96-well Elisa block	1	1
15347938	28 x 1.5mL block	28	1
15357938	28 x 2.0mL block	28	1
15327938	46 x 6mm dia. block	46	1
15337938	28 x 10mm dia. block	28	1
15367938	24 x 13mm dia. block	24	1
15387938	12 x 18mm dia. block	12	1
15397938	8 x 20mm dia. block	8	1
15307948	6 x 25mm dia. block	6	1
15377948	Mixed block, 0.5mL and 0.2mL	30	1
15347948	Mixed block, 1.5mL and 2.0mL	18	1
15337948	Mixed block, 6mm and 10mm dia.	32	1
15357948	Mixed block, 22mm, 13mm and 6mm dia.	3	1
15317948	40 x 0.5mL block	40	1
15387948	15mL flat-bottom tube block	15	1
15397948	50mL flat-bottom tube block	4	1
15307958	15mL conical tube block	15	1
15317958	50mL conical tube block	4	1
15337958	96-well non-skirted PCR	1	1
15347958	96-well half / full-skirted PCR	1	1

## Bath, dry, mini

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- Compact footprint, (d x l x h), mm: 120 x 140 x 60
- Stability at 37°C ±0.1°C
- Homogeneity: ±0.1°C to 37°C
- Timer: 0 to 19h:59min, or continuous
- Warranty: One year



Cat. No	Description	Pack qty
12186560	Mini dry bath digital block heater, integral 12 x 1.5mL block, anodised aluminium, optional rack for rapid loading/unloading	1

## Cleaning baths, ultrasonic, unheated, S-line

- State of the art microprocessor controlled ultrasonic cleaning and sweep technology
- Long lifespan from cavitation resistant stainless steel tanks
- LED display showing set and remaining time
- Ergonomically shaped plastic carrying handles
- Newly developed cover reduces noise
- Easy draining of cleaning liquid through the drain duct via a dial on the side
- Operating panel arranged so that liquid cannot enter the electronics
- Degas function key
- Warranty: One year



Cat. No	Volume, L	Dimensions, external (w x d x h), mm	Carrying handles	Power, W	Mass, kg	Pack qty
10611983	0.8	206 x 116 x 178	No	30	2.0	1
10708304	1.75	175 x 180 x 212	No	35	2.1	1
10692353	2.75	300 x 179 x 214	Yes	80	3.3	1
10602363	4.25	300 x 179 x 214	Yes	140	4	1
10335822	5.75	365 x 186 x 264	Yes	150	5.1	1
10758684	6.9	568 x 179 x 214	Yes	150	5.6	1
10592163	9.4	568 x 179 x 264	Yes	150	6.4	1
10192512	9.5	365 x 278 x 264	Yes	150	5.9	1
10071012	12.75	365 x 278 x 321	Yes	200	7.5	1
11832370	14	568 x 340 x 224	Yes	200	3.3	1
10623683	18.0	390 x 340 x 321	Yes	200	8.5	1
10485982	28.0	568 x 340 x 321	Yes	300	11.0	1

## Cleaning baths, ultrasonic, analogue, heated, S-line

- State of the art microprocessor controlled ultrasonic cleaning and sweep technology
- Long lifespan from cavitation resistant stainless steel tanks
- LED display showing set and remaining time and pre-set and actual temperature
- Ergonomically shaped plastic carrying handles
- Newly developed cover reduces noise and accelerates the heating up process
- Easy draining of cleaning liquid through the drain duct via a dial on the side
- Operating panel arranged so that liquid cannot enter the electronics
- Degas function key
- Warranty: One year



Cat. No	Volume, L	Dimensions, external (w x d x h), mm	Carrying handles	Power, W	Mass, kg	Pack qty
10591203	0.8	206 x 116 x 178	No	90	2.0	1
10551783	1.75	175 x 180 x 212	No	95	2.1	1
10162372	2.75	300 x 179 x 214	Yes	280	3.3	1
10215332	4.25	300 x 179 x 264	Yes	340	4.0	1
10345822	5.75	365 x 186 x 264	Yes	550	5.1	1
10395912	6.9	568 x 179 x 214	Yes	750	5.6	1
10663113	9.4	568 x 179 x 264	Yes	750	6.4	1
10239491	9.5	365 x 278 x 264	Yes	550	5.9	1
10204762	12.75	365 x 278 x 321	Yes	1000	7.5	1
10102762	18	390 x 340 x 321	Yes	1000	8.5	1
15280147	28.0	568 x 340 x 321	Yes	1500	11	1
10366012	45	615 x 370 x 467	Yes	2000	25	1
10427912	90	715 x 570 x 467	Yes	2800	42	1

## Baskets, stainless steel, for ultrasonic baths

- For use with Fisherbrand ultrasonic cleaner series
- Stainless steel



Cat. No	For use with	Dimensions, internal (l x w x h), mm	Pack qty
11726188	0.8L baths	177 x 73 x 30	1
11736188	1.75L baths	177 x 73 x 30	1
10241320	2.75L baths	198 x 106 x 50	1
11746188	4.25L baths	190 x 105 x 75	1
11756188	5.75L baths	255 x 115 x 75	1
11766188	6.9L baths	465 x 106 x 50	1
11776188	9.4L baths	455 x 106 x 75	1
11786188	9.5L baths	255 x 200 x 80	1
11796188	12.75L baths	250 x 190 x 115	1
11709118	14L baths	455 x 250 x 55	1
10614913	18L baths	280 x 250 x 115	1
11706198	28L baths	455 x 250 x 115	1
11786198	45L baths	455 x 270 x 194	1
11796198	90L baths	545 x 450 x 250	1

## Lids, plastic, for ultrasonic baths

- For use with Fisherbrand ultrasonic cleaners



Cat. No	For use with	Pack qty
10060892	0.8L baths	1
10235232	1.75L baths	1
10560243	2.75L and 4.25L baths	1
10798294	5.75L baths	1
11846244	6.9L and 9.4L baths	1
10487912	9.5L and 12.75L baths	1
10798484	18L baths	1
10345962	28L baths	1
11706208	45L baths	1
11716208	90L baths	1

## Cleaning baths, ultrasonic, heated, digital P-Line

For all applications in analytical, industrial and medical laboratories, including intensive cleaning applications.

- Significantly more powerful than conventional ultrasonic units
- Practical and easy to operate with clear display showing set and actual parameters
- Multi-frequency
- 37kHz for standard applications
- 8kHz for prolonged cleaning time, ideal for the treatment of very small and sensitive KSP
- Units feature normal, pulse, sweep, degas and power control functions
- Warranty: One year



Cat. No	Volume, L	Dimensions, external (w x d x h), mm	Dimensions, internal (w x d x h), mm	Power, W	Sonics, W	Pack qty
11718029	2.75	240 x 137 x 100	300 x 179 x 221	320/300	480/400	1
11728029	5.75	300 x 151 x 150	365 x 186 x 271	580/550	720/600	1
11738029	6.9	505 x 137 x 100	568 x 179 x 221	820	880	1
11748029	12.75	300 x 240 x 200	365 x 278 x 321	1130	1320	1
11758029	18	327 x 300 x 200	390 x 340 x 321	1130	1320	1
11768029	28	505 x 300 x 200	568 x 340 x 321	1580	1320	1



## Water baths, general purpose, Isotemp™

- A range of general purpose water baths
- Designed to provide consistent temperature for reliable results
- Easy to use operation
- Minimal footprint
- Temperature range from ambient to 99.9°C
- Temperature stability  $\pm 0.1^\circ\text{C}$  and temperature uniformity  $\pm 0.05^\circ\text{C}$  at  $37^\circ\text{C}$
- Bright LCD controller with icon driven menu
- Stores three preset temperatures
- Automatic timer with option to set time to start procedure
- Global voltage - baths works anywhere in the world
- Audible alarms help protect your work
- General purpose water baths include a polycarbonate gabled lid
- Warranty: One year

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Cat. No	Description	Pack qty
15355877	General purpose water bath 2L	1
15365877	General purpose water bath 2L shallow	1
15375877	General purpose water bath 5L	1
15315887	Dual general purpose water bath 5L and 10L	1
15385877	General purpose water bath 10L	1
15395877	General purpose water bath 20L	1
15305887	General purpose water bath 28L	1

## Water baths, shaking, Isotemp™

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- Intuitive digital control and easy to use
- Easy cleaning and maintenance with coil-free design
- Optimise scheduling with auto-on and auto-off timers
- Help prevent bath overheating and damage with low-fluid protection
- Conveniently save commonly used settings with four temperature and shaking speed presets
- Help protect your work with audible alarms
- Easily operate and monitor with icon-based graphical display
- Accommodate taller labware with new hinged lid and extended height
- Features next-generation shaker motor
- Baths come with stainless steel gable cover and shaking tray
- Warranty: One year



Cat. No	Description	Pack qty
15325887	Fisherbrand Isotemp shaking water bath 15L	1
15335887	Fisherbrand Isotemp shaking water bath 27L	1

## Accessories, Isotemp™ general purpose water baths

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Cat. No	Description	Pack qty
15345887	Polycarbonate gable cover for 2L general purpose bath	1
15355887	Polycarbonate gable cover for 5L and 2L shallow general purpose bath	1
15365887	Polycarbonate gable cover for 10L general purpose bath	1
15375887	Polycarbonate gable cover for 20L and 28L general purpose bath	1
15305897	Stainless steel gable cover for 10L or 2L shallow general purpose bath	1
15315897	Stainless steel gable cover for 10L general purpose bath	1
15325897	Stainless steel gable cover for 20L and 28L general purpose bath	1
15385887	Stainless steel gable cover for 2L general purpose bath	1
15355897	Four-hole concentric ring cover for 10L general purpose bath	1
15365897	Four-hole concentric ring cover for 20L and 28L general purpose bath	1
15385897	Stainless steel petri dish rack, for 80 x 50mm or 30 x 90mm dishes	1
15395897	Stainless steel test tube rack, for 50 tubes up to 25mm diameter up to 150mm high	1
15365927	Hand pump, for draining baths	1

## Accessories, Isotemp™ shaking water baths

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- Please note that each rack, clip or tray also requires one clip fastener

Cat. No	Description	Pack qty
15305917	Microtuge tubes rack 60 x 0.5mL for shaking baths	1
15315917	Microtuge tubes rack 30 x 1.5mL for shaking baths	1
15355927	Water regulation kit for use with shaking baths	1
15325917	Test tube tray, for ten 13 to 25mm tubes	1
15335917	Flask tray 25mL	1
15345917	Flask tray 50mL	1
15335927	High wall tray - large	1
15325927	High wall tray - small	1
15355917	Test tube clip for 13mm to 25mm tray	1
15315927	Flask clip - 1000mL	1
15385917	Flask clip - 125mL	1
15395917	Flask clip - 250mL	1
15365917	Flask clip - 25mL	1
15305927	Flask clip - 500mL	1
15375917	Flask clip - 50mL	1
15345927	Clip fasteners for use with shaking water baths	25

## CENTRIFUGATION

Focus on Fisherbrand for your complete centrifugation needs. With our compact and versatile centrifuges, a wide selection of centrifuge tubes and our tube racks designed to bring a touch of colour to any lab environment!

## Microcentrifuges, 17/17R

- Capacity: 48mL (24 x 1.5/2mL tubes)
- Refrigerated and ventilated models
- Maximum speed/RCF: 13,300rpm/17,000xg
- Adjustable 99 minute timer and quick-spin feature for short runs
- Supplied with rotor and biocontainment lid
- Warranty: Two years



Cat. No	Description	Pack qty
<b>11516873</b>	Microcentrifuge Micro 17, ventilated	1
<b>11526873</b>	Microcentrifuge Micro 17R, refrigerated	1

## Centrifuge tube racks, Adapt-A-Rack™

- Each slot adapts to accommodate 12mm to 30mm (5mL to 50mL) tube sizes
- Racks can be linked together for additional holding capacity
- For skirted, round bottom, flat bottom and conical tubes



Cat. No	Description	Pack qty
<b>15340370</b>	Adapt-a-Rack™ blue\blue, four position	2
<b>15350370</b>	Adapt-a-Rack™ white\white, four position	2
<b>15360370</b>	Adapt-a-Rack™ pink\pink, four position	2
<b>15380370</b>	Adapt-a-Rack™ yellow\yellow, four position	2
<b>15390370</b>	Adapt-a-Rack™ green\green, four position	2
<b>15300370</b>	Adapt-a-Rack™ blue\green, four position	2
<b>15320370</b>	Adapt-a-Rack™ blue\yellow, four position	2
<b>15330370</b>	Adapt-a-Rack™ pink\white, four position	2

## Centrifuge, midi

Ideal for protocols calling for fast spins with a higher RCF requirement. Also ideal for micro-filter cell separations, PCR\*, clinical applications and HPLC protocols. Includes two rotors: standard 12-place rotor with lid and eight-place strip rotor for four 0.2mL tube strips or 32 single tubes.

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- Variable speed setting 500rpm to 12,500rpm, in 100rpm increments
- Variable timer 1s to 30min, in 1s increments
- Selectable digital display of speed in RCF or rpm
- Low noise, vibration and a small footprint
- Imbalance and tilt safety cut out
- Quick spin button
- Supplied complete with two rotors and a universal power adapter for worldwide voltages
- Compact footprint and brush-less motor for quiet operation and low vibration
- Back lit display showing time, speed and operational information on the same screen
- UV resistant plastic, increased useful life under harsh light conditions
- Warranty: Two years

Cat. No	Description	Pack qty
<b>12972041</b>	Midi centrifuge, 12,500rpm, 9800xg, 203 x 171 x 114mm (l x w x h)	1

## Centrifuge tube racks, Pop-Up™

Open the racks to organise your tubes or collapse them for compact storage. Fisherbrand™ Pop-Up™ centrifuge tube racks accommodate two tube sizes in a sturdy polypropylene rack with imprinted grids. Save space when they are not in use by easily closing them.

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Cat. No	Colour	Accommodates	Hole diameter(s), mm	Dimensions, mm (l x w x h), expanded	Dimensions, mm (l x w x h), collapsed	Pack qty
<b>11710634</b>	Blue	21 x 15mL and 12 x 50mL tubes	17 and 30	255 x 137 x 72	255 x 137 x 21	2
<b>12693466</b>	Purple	45 x 15mL tubes	17	255 x 137 x 72	255 x 137 x 21	2
<b>12603476</b>	Green	18 x 50mL tubes	30	255 x 137 x 72	255 x 137 x 21	2

## Centrifuge, mini

Achieve fast speed in minimal space. The Fisherbrand mini centrifuge is ideal for quick spin downs, micro-filter cell separations, PCR\* and HPLC samples. It is compact and easy to use and comes as standard with a host of accessories, including two rotors, O-rings and interchangeable plugs.

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- Small footprint and quiet operation
- UV resistant housing of SnapSpin™ rotors for quick and easy change
- Compact ergonomic design and footprint
- Max speed 6000rpm/2000xg
- Weighted rubberised base eliminates potential movement and further dampens any noise output
- Warranty: One year

Cat. No	Description	Pack qty
<b>15358266</b>	Mini centrifuge, 6000rpm, 2000xg, 153 x 128 x 104mm (l x w x h)	1

## Centrifuge tube rack, adjustable

- Adjustable opening for different diameter tubes
- Holds 12 tubes from 15mL to 50mL (16mm to 30mm diameter)
- Size of opening can be changed by turning handle or by direct insertion of tube
- With handles for easy transportation
- Dimensions (l x w x h), mm: 194 x 140 x 51
- Not recommended for autoclaving

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Cat. No	Description	Pack qty
<b>11987994</b>	Tube rack, centrifuge, adjustable	1

## Microcentrifuge tube rack, polypropylene, 20 well

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- Polypropylene racks for storing 20 tubes
- Accommodates 0.5, 1.0, 1.5 or 2.0mL tubes
- Racks lock together on each side
- Tubes are easily removed using 'hold-it' finger slot on the front of the rack
- Dimensions (l x w x h), mm: 213 x 90 x 50
- Autoclavable



Cat. No	Description	Pack qty
11784016	Microtube rack 20 well, blue	6

## Microcentrifuge tube rack, polypropylene, three way

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- Three way polypropylene racks connect to one another on either end
- Convenient finger slots are moulded onto the rack and each of the three tiers accommodates a different size tube
- Lowest level has 24 wells to hold individual 0.2mL tubes or strips of 8 or 12 tubes
- Middle tier has 14 wells to hold 0.5mL tubes
- Top tier has 12 wells to hold 1.5mL tubes
- Autoclavable
- Dimensions (l x w x h), mm: 164 x 123 x 62
- Supplied in assorted colours (blue, green, natural, pink, yellow, orange)



Cat. No	Description	Pack qty
11928084	Microcentrifuge tube rack three way, assorted colours (blue, green, natural, pink, yellow, orange)	6

## Microcentrifuge tube rack, Rota-Rack Duo, PCR\*

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- Rotating rack holds 48 x 0.2mL, 0.5mL and 1.5mL PCR tubes
- Polypropylene with imprinted alphanumeric grid aids tube retrieval
- Dimensions (l x w x h), mm: 296 x 118 x 34



Cat. No	Description	Pack qty
11304095	Rota-Rack™ Duo	1

## Microcentrifuge tube racks, polypropylene, 80 well

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Polypropylene 80 well microtube racks ideal for freezer storage.



Cat. No	Colour	Pack qty
11720344	Natural	5
11968074	Blue	5
11978074	Green	5
11918084	Red	5
11908084	Orange	5
11988074	Pink	5
11998074	Yellow	5
11728084	Assorted (Blue, Green, Pink, Yellow, Orange)	5

## Microcentrifuge tube rack, polypropylene, cube

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- User friendly cube racks
- Racks measure 108mm x 113mm x 113mm
- Slide the polypropylene racks together in multiple orientations to work with different sized tubes at the same time
- Each rack can hold 4 x 50mL tubes, 10 x 15mL conical tubes, 12 x 75mL to 100mL tubes or 16 x 1.5mL to 2.0mL tubes
- Autoclavable



Cat. No	Description	Pack qty
11784726	Cube rack, assorted colours (blue, green, yellow, orange, pink)	5

## Microcentrifuge tube racks, polypropylene, four-way

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Four-way heavy duty racks feature a unique system of tabs and slots which when linked together create a larger



Cat. No	Colour	Pack qty
11750334	Natural	5
11770045	Blue	5
11760334	Fluorescent green	5
11780045	Fluorescent pink	5
11770334	Fluorescent yellow	5
11790045	Fluorescent orange	5
11700055	Assorted (blue, green, pink, yellow and orange)	5

\*Polymerase Chain Reaction (PCR) is a process covered by patents owned by Hoffmann-La-Roche



## Microcentrifuge tube racks, polypropylene, PCR

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- Sturdy polypropylene racks ideal for pre- or post-PCR\* sampling applications
- With removable hinged lid accommodates individual 0.2mL tubes or strips of 8 or 12 tubes
- Tube wells are easily identified with imprinted numbers and letters
- Dimensions (l x w x h), mm: 130 x 98 x 33
- Autoclavable



Cat. No	Description	Pack qty
11527593	96 well PCR rack, natural	5
11948074	96 well PCR rack, green	5
11958074	96 well PCR rack, blue	5
11710344	96 well PCR rack, assorted colours (blue, green, pink, yellow and orange)	5

## Microtube racks, 96 well, assorted colours

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- Reversible: 0.5mL or 1.5 to 2mL microtubes
- Alphanumeric coding
- With clear cover to protect the tubes and allow stacking of several racks
- Dimensions (l x w x h), mm: 246 x 121 x 50



Cat. No	Description	Pack qty
11958014	96 well reversible rack, blue	5
11968014	96 well reversible rack, green	5
11748174	96 well reversible rack, pink	5
11978014	96 well reversible rack, yellow	5
11738174	96 well reversible rack, natural	5
11728174	96 well reversible rack, assorted colours	5

## Tube racks, Rota Rack™

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- Use several sizes of micro test tubes at once. The Fisherbrand™ Rota Rack™ has four modules that can be independently rotated to accommodate different sizes. Just click each module into place and load it with tubes. The racks remain sturdily in position until twisted again.
- Each module of the small Rota-Rack™ holds six 15mL tubes, nine 1.5/2mL tubes, 12 x 0.5/0.6mL tubes or 32 independent 0.2mL PCR\* tubes or four 8 tube strips
- Each module of the large Rota-Rack™ holds two 50mL tubes, eight 15mL tubes, six 16mm to 20mm tubes, ten 10mm to 13mm tubes
- Each rack has modules in green, pink, blue and yellow, and is fully autoclavable



Cat. No	Description	Pack qty
11394085	Rota-Rack™, small	1
11384085	Rota-Rack™, large	1

## Centrifuge tubes, 15mL and 50mL

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- Graduated in 0.5mL subdivisions (15mL) or 5mL subdivisions (50mL)
- Sterile where indicated



Cat. No	Max. RCF, xg	Sterile	Material	Cap	Dia. x H, mm	Pack type	Inner pack qty	Pack qty
<b>15mL</b>								
11755075	6000	Yes	PP	Flat top	17 x 119	Bulk	25	500
11765075	6000	Yes	PP	Plug seal	17 x 119	Bulk	25	500
<b>50mL</b>								
11512303	9400	Yes	PP	Flat top	29 x 114	Bulk	25	500
11809650	9400	Yes	PP	Plug seal	29 x 114	Bulk	25	500
11829650	9400	No	PP	Plug seal	29 x 114	Bulk	25	500
<b>15mL</b>								
11879640	1800	Yes	PET	Plug seal	17 x 119	Rack	50	500
11849650	6000	Yes	PP	Flat top	17 x 119	Rack	50	500
11889640	6000	Yes	PP	Plug seal	17 x 119	Rack	50	500
<b>50mL</b>								
11839650	1800	Yes	PET	Plug seal	29 x 114	Rack	50	500
11819650	9400	Yes	PP	Flat top	29 x 114	Rack	50	500
11899640	9400	Yes	PP	Plug seal	29 x 114	Rack	50	500

You may also be interested in our [cell strainers on page 43](#)



\*Polymerase Chain Reaction (PCR) is a process covered by patents owned by Hoffmann-La Roche

## Microcentrifuge tubes, graduated

*fisherbrand*

- Flat cap
- DNase, RNase free
- Autoclavable



Cat. No	Capacity, mL	Colour	Description	Pack qty
11916955	0.6	Natural	Standard	500
11996955	0.6	Natural	Low binding	500
11926955	1.5	Natural	Standard	500
11986955	1.5	Natural	Low binding	250
11393613	2.0	Natural	Standard	500
11906965	2.0	Natural	Low binding	250

## Microcentrifuge tubes with SafeLock™ locking lid

*fisherbrand*

- Flat cap
- DNase, RNase free
- Polypropylene
- Autoclavable



Cat. No	Capacity, mL	Max. RCF, xg	Colour	Pack qty
11976955	0.6	30k	Natural	1000
11966955	1.5	26k	Mixed	500
11706467	1.5	26k	Natural	500
11956955	2	25k	Natural	500

## Microcentrifuge tubes with locking snap cap

*fisherbrand*

- Convenient, pierceable locking lids snap into place with one-handed operation
- Graduated, natural polypropylene (PP)
- Non-sterile
- Flat and pierceable cap
- Locking lid to secure the sample and avoid undesired opening
- Marking area
- Autoclavable and can withstand temperatures to -86°C
- DNase/RNase and pyrogen free



Cat. No	Capacity, mL	Max. RCF (xg)	Bottom shape	Diameter, mm	Length, mm	Pack qty
15422545	0.5	30k	Conical	10	30	500
15432545	1.5	26k	Conical	13	39	500
15442545	2.0	25k	Round	13	40	500

## Fisher BioReagents - Vital Reagents for Life Science

Designed for molecular biology, protein chemistry, cell biology and microbiology applications.

High-purity products meet stringent industry specifications for critical factors such as purity, water content, levels of contaminants and absence of DNase, RNase & protease activity.

Reagents are prequalified and guaranteed to be suitable for the designated technique.



See Fisher BioReagents range of products on page 117 to 124

## CHROMATOGRAPHY

The Fisherbrand range of chromatography vials and closures is extensive. They have been designed to provide you with the best fit for your applications, sample type and autosampler requirements. To complete your chromatography portfolio, please refer to the Chemicals section in this brochure to select the appropriate solvent for your particular application from our range of specialty solvent grades.

## CRIMP NECK VIALS ND8

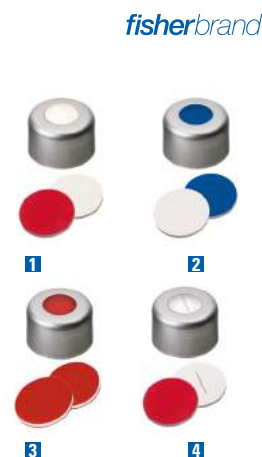
These vials are preferentially used on instruments from the following manufacturers: Agilent, Beckman, Carlo Erba, CTC, Fisons, PerkinElmer, Shimadzu, Thermo Scientific, VWR (Merck™)/Hitachi, etc. 9mm PE caps or 8mm push-on caps. Note that some microvials may need an adapter for full autosampler compatibility as typically they have a conical base and are therefore not free-standing.

- Available in different capacities
- With flat, round or conical bottoms
- In clear or amber glass
- For almost all autosamplers



## Vials, precision thread, 18mm opening, headspace

- Temperature resistant from -60°C up to +200°C
- Preferably only for single injections due to low resealability properties
- Different hardnesses (durometers) to meet requirements of the needle regarding penetration
- Much cleaner than natural rubber or red rubber
- Silicone liners with PTFE on both sides for less coring during penetration



Cat. No	Description	Septa material	Durometer	Thick-ness, mm	Pack qty
<b>1 10385862</b>	Aluminium cap clear lacquered, 4mm centre hole	Silicone white/PTFE red	45° Shore A	1.3	100
<b>1 11581334</b>	Aluminium cap clear lacquered, 4mm centre hole	Silicone cream/PTFE red	55° Shore A	1.5	100
<b>2 11541344</b>	Aluminium cap clear lacquered, 4mm centre hole	Silicone dark blue/PTFE white	45° Shore A	1.3	100
<b>3 11571334</b>	Aluminium cap clear lacquered, 4mm centre hole	PTFE red/Silicone white/PTFE red	45° Shore A	1.0	100
<b>4 11551344</b>	Aluminium cap clear lacquered, 4mm centre hole	Silicone white/PTFE red, with slit	45° Shore A	1.3	100

## ND8 Crimp neck vials and microvials

Cat. No	Description	Dimensions, mm	Glass type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res.Vol (μL)	Pack qty
<b>Crimp neck vials</b>								
<b>1 11732408</b>	0.7mL Crimp neck vial	40 x 7	Clear	0.9	0.8	40	<11	10 x 100
<b>2 11742408</b>	0.7mL Crimp neck vial	40 x 7	Amber	0.9	0.8	40	<11	10 x 100
<b>3 11561364</b>	0.8mL Crimp neck vial	30 x 8.2	Clear	0.9	0.8	40	<11	100
<b>1 11531374</b>	1.2mL Crimp neck vial	40 x 8.2	Clear	1.1	1.00	50	<20	100
<b>2 11541374</b>	1.2mL Crimp neck vial	40 x 8.2	Amber	1.1	1.00	50	<20	100
<b>Microvials</b>								
<b>4 11717567</b>	0.3mL Micro-vial round bottom	31.5 x 5.5	Clear	0.35	0.3	30	<6	10 x 100
<b>5 11722408</b>	0.2mL Micro-vial conical bottom	31.5 x 5.5	Clear	0.26	0.2	25	<3	10 x 100
<b>6 11782408</b>	0.6mL Micro-vial conical bottom	40 x 7	Clear	0.64	0.6	25	<3	10 x 100
<b>7 11792408</b>	0.6mL Micro-vial conical bottom	40 x 7	Amber	0.64	0.6	25	<3	10 x 100
<b>8 11712408</b>	0.7mL Micro-vial conical bottom	30 x 7	Amber	1.3	1.05	25	<3	10 x 100

You may also be interested in our range of **Chemicals products** on pages 125 to 132



TFVol. = Total Volume/Filling Volume (mL)

UsVol. = Usable Volume (mL)

MWVol. = Minimum Working Volume (μL)

Res. Vol. = Residual Volume (μL)

## SCREW NECK VIALS ND8

The vials are preferentially used on instruments from the following manufacturers: Beckman, CTC, Gilson, Knauer, Shimadzu, Spark, Varian, VWR

- Standard vials for GC and HPLC
- Specially suitable for VWR (Merck™)/Hitachi instruments (Cat No. 11565874, 10560053, 10040992, 10671763, 11561354, 11821663, 11841653)
- Broad range of micro-insert
- Vials and seals also available as 2-in-1 kit
- Small opening requires micro-inserts with a diameter of 5mm
- Micro-insert with flat bottom also available

### Screw neck vials ND8, small opening, 8-425 thread and microvials ND8

*fisherbrand*



Cat. No	Description	Dimensions, mm	Glass type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res. Vol (μL)	Pack qty
<b>1</b> 11565874	1.5mL Screw neck vial, small opening (silanised version available Cat. No 11575904)	32 x 11.6	Clear	1.9	1.5	200	<110	100
<b>2</b> 10560053	1.5mL Screw neck vial, small opening	32 x 11.6	Amber	1.9	1.5	200	<110	100
<b>3</b> 11525884	1.5mL Screw neck vial, small opening, label + filling lines	32 x 11.6	Clear	1.9	1.65	200	<110	100
<b>4</b> 11595874	1.5mL Screw neck vial, small opening, label + filling lines (silanised version available Cat. No 11525914)	32 x 11.6	Amber	1.9	1.5	200	<110	100
<b>5</b> 11515884	1.1mL Microvial, conical, small opening	32 x 11.6	Clear	1.3	1	30	<3	100

### Micro-inserts for vials ND8 with small opening

*fisherbrand*



Cat. No	Description	Dimensions, mm	Glass type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res. Vol (μL)	Pack qty
<b>1</b> 11762428	0.1mL Micro-insert, 15mm top	31 x 5	Clear	0.2	0.15	25	<1	10 x 100
<b>2</b> 11861653	0.1mL Micro-insert, 9mm top	31 x 5	Clear	0.25	0.2	30	<2	10 x 100
<b>3</b> 11772428	0.2mL Micro-insert, flat bottom	31 x 5	Clear	0.3	0.26	40	<8	10 x 100
<b>4</b> 11858951	0.1mL Micro-insert, with assembled plastic spring	29 x 5	Clear	0.2	0.15	25	<1	10 x 100
<b>5</b> 11848951	0.1mL Micro-insert, metal spring required!	27.5 x 4	Clear	0.2	0.11	25	<1	10 x 100
<b>6</b> 11571304	Spring for micro-insert 11848951	36 x 5	-	-	-	-	-	100

## Reach the Highest Level of UHPLC-MS Performance

**NEW Fisher Chemical solvent grade targeted for trace analysis by UHPLC-MS. UHPLC-MS Optima™ are ultra-high purity solvents specifically qualified for Mass Spec instrumentation. Designed to ensure low metal ion adduct formation, reduce column clogging and improve peak profiles.**



**See Fisher Chemical range of products on page 125 to 132**

TFVol. = Total Volume/Filling Volume (mL)

UsVol. = Usable Volume (mL)

MWVol. = Minimum Working Volume (μL)

Res. Vol. = Residual Volume (μL)



## POLYPROPYLENE SCREW CAPS ND8

- Ready to use combination seals; no time consuming and 'tricky' assembly
- Available as black or white screw caps with 8-425 thread
- Available as closed top screw seals or with centre hole
- Now available either with natural rubber or red rubber as cost-effective seals

### Natural rubber/TEF, red rubber/PTFE and butyl/PTFE seals ND8

*fisherbrand*

- Natural rubber is ideal for multiple injections due to high resealability, but not as easy to penetrate as red rubber/PTFE
- Standard, moderately priced seals for GC and HPLC
- Red rubber/PTFE has a better purity than natural rubber/TEF, is softer and has less fragmentation, but doesn't offer the same resealability as natural rubber/TEF
- Temperature resistant from -40°C up to +120°C for natural rubber/TEF + butyl/PTFE, resistant up to +110°C for red rubber/PTFE
- Butyl as a synthetic rubber has good chemical properties



### Natural rubber/TEF, red rubber/PTFE, butyl/PTFE and silicone/PTFE seals, closed top ND8

*fisherbrand*



Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
<b>Polypropylene screw cap black, 5.5mm centre hole, 8-425 thread</b>				
<b>1 10671763</b>	Natural rubber red-orange/TEF transparent	60° Shore A	1.3	100
<b>2 11511404</b>	Red rubber/PTFE beige	45° Shore A	1.0	100
<b>3 11591394</b>	Butyl red/PTFE grey	55° Shore A	1.3	100

Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
<b>Polypropylene screw cap black, closed top, 8-425 thread</b>				
<b>1 11511394</b>	Natural rubber red-orange/TEF transparent	60° Shore A	1.3	100
<b>2 15552300</b>	Red rubber/PTFE beige	45° Shore A	1.0	100
<b>3 11501404</b>	Butyl red/PTFE grey	55° Shore A	1.3	100
<b>4 11551394</b>	Silicone white/PTFE red UltraClean	45° Shore A	1.3	100

### Silicone/PTFE seals ND8

*fisherbrand*

- Temperature resistant from -60°C up to +200°C
- Silicone liners with PTFE on both sides for less coring
- Much cleaner than natural rubber, red rubber or butyl
- Different hardnesses (durometers) to meet requirements of the various types of needles regarding penetration



Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
<b>Polypropylene screw cap black, 5.5mm centre hole, 8-425 thread</b>				
<b>1 11561384</b>	Silicone white/PTFE red UltraClean	45° Shore A	1.3	100
<b>1 11581384</b>	Silicone cream/PTFE red UltraClean	55° Shore A	1.5	100
<b>2 11531394</b>	Silicone dark blue/PTFE white	45° Shore A	1.3	100
<b>3 10204902</b>	PTFE red/silicone white/PTFE red	45° Shore A	1.0	100
<b>4 11571394</b>	Silicone white/PTFE red, with slit	45° Shore A	1.3	100

### Septa (only, without caps) for ND8 (8mm) vials

*fisherbrand*



Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
<b>1 11821663</b>	PTFE virginal (only unassembled)	53° Shore D	0.25	1000
<b>2 11848961</b>	Natural rubber red-orange/TEF transparent (only unassembled)	60° Shore A	1.0	1000
<b>2 11787557</b>	Natural rubber red-orange/TEF transparent, tested by VWR (Merck™)/Hitachi	60° Shore A	1.3	1000
<b>3 12950841</b>	Red rubber/PTFE beige	45° Shore A	1.0	100
<b>4 11868961</b>	Butyl red/PTFE grey	55° Shore A	1.3	1000
<b>5 11872663</b>	Silicone white/PTFE red	45° Shore A	1.3	1000
<b>5 11830772</b>	Silicone cream/PTFE red	55° Shore A	1.5	1000
<b>6 11840772</b>	Silicone dark blue/PTFE white	45° Shore A	1.3	1000
<b>7 11841653</b>	Silicone white/PTFE blue, slitted, rec. by VWR (Merck™)/Hitachi (only unassembled)	55° Shore A	0.9	1000
<b>8 11828961</b>	PTFE red/silicone white/PTFE red	45° Shore A	1.0	1000

TFVol. = Total Volume/Filling Volume (mL)

UsVol. = Usable Volume (mL)

MWVol. = Minimum Working Volume (μL)

Res. Vol. = Residual Volume (μL)



## Polypropylene screw caps ND8 (caps only, supplied without seals)

*fisherbrand*



Cat. No	Description	Pack qty
<b>1</b> 11561354	Polypropylene screw cap, black, 5.5mm centre hole	100
<b>2</b> 11571354	Polypropylene screw cap, black, closed top	100
<b>3</b> 10060942	Polypropylene screw cap, white, 5.5mm centre hole	100
<b>4</b> 10497912	Polypropylene screw cap, white, closed top	100

## Special 3-in-1 and 2-in-1 kits

*fisherbrand*

3-in-1 and 2-in-1 kits for VWR (Merck™)/Hitachi autosampler



Cat. No	Item	Description	Pack qty
<b>10670843</b>	3-in-1 kit	3-in-1 kit consisting of: 11565874, 11561354 and 11841653	100
<b>11565874</b>	Vial	1.5mL Screw neck vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, small opening	100
<b>11561354</b>	Cap	Polypropylene screw cap, black, 5.5mm centre hole	100
<b>11841653</b>	Septa	Silicone white/PTFE blue, 55° Shore A, 0.9mm, slitted rec. by VWR (Merck™)/Hitachi	100
<b>12980871</b>	Alternative 3-in-1 kits	Same cap + same septa in combination with 10560053 (amber glass, small opening)	100
<b>12950871</b>	Alternative 3-in-1 kits/2-in-1 kits	Same vial + same cap in combination with 11821663 (PTFE virginal 0.25mm)	100
<b>10000842</b>	2-in-1 kit	2-in-1 kit consisting of: 11565874, 10671763	100
<b>11565874</b>	Vial	1.5mL Screw neck vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, small opening	100
<b>10671763</b>	Cap	Polypropylene screw cap, black, 5.5mm centre hole, natural rubber red-orange/TEF transparent, 60° Shore A, 1.3mm	100
<b>12910881</b>	Alternative 2-in-1 kits	Same seal in combination with 10560053 (amber glass, small opening)	100
<b>12900881</b>	Alternative 2-in-1 kits	Same seal in combination with 11525884 (clear glass, small opening, with label + filling lines)	100

## 2-in-1 kits for Varian autosampler

*fisherbrand*

Cat. No	Item	Description	Pack qty
<b>10475792</b>	2-in-1 kit	2-in-1 kit consisting of: 11565874, 11561384	100
<b>11565874</b>	Vial	1.5mL Screw neck vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, small opening	100
<b>11561384</b>	Seal	PP screw cap, black, 5.5mm centre hole; UltraClean silicone white/PTFE red, 45° Shore A, 1.3mm	100
<b>12990871</b>	Alternative 2-in-1 kit	Same seal in combination with 11525884 (clear glass, small opening, with label + filling lines)	100
<b>12960871</b>	2-in-1 kit	2-in-1 kit consisting of: 10560053, 11561384	100
<b>10560053</b>	Vial	1.5mL Screw neck vial, 32 x 11.6mm, amber glass, 1st hydrolytic class, small opening	100
<b>11561384</b>	Seal	PP screw cap, black, 5.5mm centre hole; UltraClean silicone white/PTFE red, 45° Shore A, 1.3mm	100
<b>12970871</b>	Alternative 2-in-1 kit	Same seal in combination with 11595874 (amber glass, small opening, with label + filling lines)	100

## Meeting the Stringent Purity Requirements of LC-MS



The certified performance of Fisher Chemical Optima™ LC-MS solvents offers the most reliable solution for today's scientist. For consistent, reproducible performance in the mobile phase of LC-MS, choose Optima LC-MS grade solvents, mobile phase blends, reagents and additives.

See Fisher Chemical range of products on page 125 to 132

## SHORT THREAD VIALS ND9

These vials can be used on all popular autosamplers thanks to their technical geometry, especially models manufactured by Agilent, HTA, Shimadzu, Thermo Scientific, Varian and Waters.

### The universal autosampler vial

- Universally compatible with almost all autosamplers
- Vials with integrated micro-insert are also now available in amber glass
- Pre-screwed short thread vials available



### Short thread vials ND9, wide opening and microvials with short thread ND9

*fisherbrand*

Cat. No	Description	Dimensions, mm	Glass type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res.Vol (μL)	Pack qty
<b>1</b> 10162512	1.5mL Short thread vial, 1st hydrolytic class, wide opening (silanised version available Cat. No 11585894)	32 x 11.6	Clear	1.85	1.5	200	<120	100
<b>2</b> 11575884	1.5mL Short thread vial, 1st hydrolytic class, wide opening, label + filling lines (silanised version available Cat. No 15562310)	32 x 11.6	Clear	1.85	1.5	200	<120	100
<b>3</b> 10080952	1.5mL Microtitre thread vial, 1st hydrolytic class, wide opening, label + filling lines (silanised version available Cat. No 11595894)	32 x 11.6	Amber	1.85	1.5	200	<120	100
<b>4</b> 11575894	Short thread vial with integrated 0.2mL Micro-insert, 1st hydrolytic class, label + filling lines, 'Top Bonded'	32 x 11.6	Clear	0.34	0.2	25	<1	100
<b>5</b> 10145714	Short thread vial with integrated 0.2mL Micro-insert, 1st hydrolytic class, label + filling lines, 'Top Bonded'	32 x 11.6	Amber	0.34	0.2	25	<1	100
<b>6</b> 12951011	Short thread vial with integrated micro-insert, 1st hydrolytic class 'Base Bonded'	32 x 11.6	Clear	0.4	0.3	30	<3	100
<b>7</b> 15592310	Short thread vial with integrated micro-insert, 1st hydrolytic class 'Base Bonded'	32 x 11.6	Amber	0.4	0.3	30	<3	100
<b>8</b> 11515894	1.1mL Microtitre short thread vial ND9, 1st hydrolytic class (silanised version available Cat. No 10670341)	32 x 11.6	Clear	1.6	1.5	30	<3	100
<b>9</b> 11535914	0.9mL total Microtitre short thread vial ND9, 1st hydrolytic class	32 x 11.6	Clear	1.4	1.1	25	<1	100
<b>10</b> 11575914	TopSert TPX short thread vial, with integrated 0.2mL glass micro-insert (silanised version available Cat. No 11595914)	32 x 11.6	Clear	0.36	0.2	25	<1	100
<b>11</b> 11515924	TopSert TPX short thread vial, with integrated 0.2mL glass micro-insert (silanised version available Cat. No 11535924)	32 x 11.6	Amber	0.36	0.2	25	<1	100

### Micro-inserts for short thread vials ND9 with wide opening

*fisherbrand*

Cat. No	Description	Dimensions, mm	Glass type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res.Vol (μL)	Pack qty
<b>1</b> 11752418	0.1mL Micro-insert, 1st hydrolytic class, 15mm top (silanised version available Cat. No 11889120)	31 x 6	Clear	0.34	0.25	30	<4	10x100
<b>2</b> 11777557	0.1mL Micro-insert, 1st hydrolytic class, 12mm top	31 x 6	Clear	0.35	0.3	30	<4	10x100
<b>3</b> 11805863	0.1mL Micro-insert, 1st hydrolytic class, with assembled plastic spring (silanised version available Cat. No 11878951)	29 x 5.7	Clear	0.3	0.25	30	<4	10x100
<b>4</b> 11762418	0.2mL Micro-insert, 1st hydrolytic class, flat bottom (silanised version available Cat. No 11792368)	31 x 6	Clear	0.5	0.35	40	<8	10x100
<b>5</b> 13445489	0.1mL PP micro-insert, 10mm top, filling lines	29 x 6	Clear	0.30	0.25	30	<4	10x100
<b>6</b> 13455499	0.1mL PP micro-insert, 10mm top, filling lines and attached plastic spring	29 x 6	Clear	0.30	0.25	30	<4	10x100
<b>7</b> 13495479	0.2mL PP micro-insert, flat bottom	31 x 6	Clear	0.5	0.35	40	<8	10x100



TFVol. = Total Volume/Filling Volume (mL)

UsVol. = Usable Volume (mL)

MWVol. = Minimum Working Volume (μL)

Res. Vol. = Residual Volume (μL)

## Plastic vials ND9 and plastic microvials ND9

fisherbrand

Cat. No	Description	Dimensions, mm	Glass type	TFVol (mL)	UsVol. (mL)	MWVol. (μL)	Res.Vol (μL)	Pack qty
<b>1</b> 11505974	1.5mL PP short thread vial, filling lines, slightly concave shaped bottom	32 x 11.6	Transpar-ent	1.85	1.50	200	<110	100
<b>2</b> 10509482	1.5mL PP short thread vial, filling lines, slightly concave shaped bottom	32 x 11.6	Amber	1.85	1.50	200	<110	100
<b>3</b> 11545974	0.7mL PP short thread microvial	32 x 11.6	Transpar-ent	0.87	0.60	150	<80	100
<b>4</b> 11565964	0.3mL PP short thread microvial	32 x 11.6	Transpar-ent	0.4	0.25	30	<4	100
<b>5</b> 11585964	0.3mL TPX short thread microvial	32 x 11.6	Crystal clear	0.4	0.25	30	<4	100
<b>6</b> 11515974	0.3mL PP short thread microvial	32 x 11.6	Amber	0.4	0.25	30	<4	100



## Polypropylene short thread seals ND9

- The synthetic red rubber/PTFE septum is cost-effective alternative to the natural rubber Instrument Manufacturer Quality (IMQ) option. Please note however that although softer for easier penetration, it is not suitable for multiple injection
- With pre-cut septa only, the silicone material is slitted in a Y-shape whilst the PTFE lamination remains intact. This ensures that sample evaporation and concentration occurring with completely slitted septa can be minimised
- Short thread seals also available as closed top version (blue cap)
- Fully assembled seal with slitted liner available, in order to avoid a vacuum inside the vial during multiple injections
- Screw caps actually possess a crimp cap design, making them suitable for robotic handling

## Polypropylene short thread cap ND9 transparent, 6mm centre hole

fisherbrand



Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
<b>1</b> 11531434	PTFE virginal	53° Shore D	0.2	100
<b>2</b> 11521424	Natural rubber red-orange/TEF transparent	60° Shore A	1.0	100
<b>3</b> 10135044	Red rubber/PTFE beige approved IMQ*	45° Shore A	1.0	100
<b>4</b> 11541424	Silicone white/PTFE red UltraClean	55° Shore A	1.0	100
<b>5</b> 10192702	PTFE red/silicone white/ PTFE red	45° Shore A	1.0	100
<b>6</b> 11591424	Silicone white/PTFE blue, with slit	55° Shore A	1.0	100
<b>7</b> 10034364	Silicone white/PTFE red, pre-cut (Y)	55° Shore A	1.0	100

## Polypropylene short thread ND9 cap blue, closed top

fisherbrand



Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
<b>1</b> 11551454	PTFE virginal	53° Shore D	0.2	100
<b>2</b> 10617625	Natural rubber red-orange/TEF transparent	60° Shore A	1.0	100
<b>3</b> 10088322	Silicone white/PTFE red UltraClean	55° Shore A	1.0	100

## Polypropylene short thread ND9 cap blue, 6mm centre hole

fisherbrand



Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
<b>1</b> 11541434	PTFE virginal	53° Shore D	0.2	100
<b>2</b> 10520443	Natural rubber red-orange/TEF transparent	60° Shore A	1.0	100
<b>3</b> 11541454	Red rubber/PTFE beige approved IMQ*	45° Shore A	1.0	100
<b>4</b> 11581424	Silicone white/PTFE red UltraClean	55° Shore A	1.0	100
<b>5</b> 11511434	PTFE red/silicone white/PTFE red	45° Shore A	1.0	100
<b>6</b> 11521434	Silicone white/PTFE blue, with slit	55° Shore A	1.0	100
<b>7</b> 10004604	Silicone white/PTFE red, pre-cut (Y)	55° Shore A	1.0	100
<b>8</b> 15572300	Aluminium liner sealed by transparent flat-seal		0.06	100

## Polypropylene short thread ND9 cap red, 6mm centre hole

fisherbrand



Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
<b>1</b> 11501444	PTFE virginal	53° Shore D	0.2	100
<b>3</b> 11551434	Natural rubber red-orange/TEF transparent	60° Shore A	1.0	100
<b>4</b> 10094594	Red rubber/PTFE beige approved IMQ*	45° Shore A	1.0	100
<b>5</b> 11571434	Silicone white/PTFE red UltraClean	55° Shore A	1.0	100
<b>6</b> 10651603	PTFE red/silicone white/PTFE red	45° Shore A	1.0	100
<b>11581434</b>	Silicone white/PTFE blue, with slit	55° Shore A	1.0	100

\*Instrument Manufacturer Quality (IMQ)

TFVol. = Total Volume/Filling Volume (mL)

UsVol. = Usable Volume (mL)

MWVol. = Minimum Working Volume (μL)

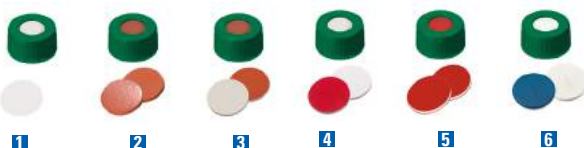
Res. Vol. = Residual Volume (μL)

## Polypropylene short thread ND9 cap black, *fisherbrand* 6mm centre hole



	Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
1	11591444	PTFE virginal	53° Shore D	0.2	100
2	11561444	Natural rubber red-orange/TEF transparent	60° Shore A	1.0	100
3	11511464	Red rubber/PTFE beige approved IMQ*	45° Shore A	1.0	100
4	11581444	Silicone white/PTFE red UltraClean	55° Shore A	1.0	100
5	11571444	PTFE red/silicone white/PTFE red	45° Shore A	1.0	100
6	11501454	Silicone white/PTFE blue, with slit	55° Shore A	1.0	100

## Polypropylene short thread ND9 cap green, 6mm centre hole *fisherbrand*



	Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
1	12912680	PTFE virginal	53° Shore D	0.2	100
2	11511444	Natural rubber red-orange/TEF transparent	60° Shore A	1.0	100
3	11581454	Red rubber/PTFE beige approved IMQ*	45° Shore A	1.0	100
4	11591434	Silicone white/PTFE red UltraClean	55° Shore A	1.0	100
5	11521444	PTFE red/silicone white/PTFE red	45° Shore A	1.0	100
6	11521454	Silicone white/PTFE blue, with slit	55° Shore A	1.0	100

## Polypropylene short thread cap yellow, 6mm centre hole *fisherbrand*



	Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
1	12922680	PTFE virginal	53° Shore D	0.2	100
2	11551444	Natural rubber red-orange/TEF transparent	60° Shore A	1.0	100
3	11521464	Red rubber/PTFE beige approved IMQ*	45° Shore A	1.0	100
4	11541444	Silicone white/PTFE red UltraClean	55° Shore A	1.0	100
5	11531444	PTFE red/silicone white/PTFE red	45° Shore A	1.0	100
6	11511454	Silicone white/PTFE blue, with slit	55° Shore A	1.0	100

## Magnetic short thread cap, 6mm centre hole (for CTC GC PAL and Thermo Scientific TriPlus Autosamplers)

*fisherbrand*



- More convenient and safer handling than 11mm magnetic crimp seals
- Ready-to-use closures
- Officially tested and approved by CTC

Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
11571454	Silicone white/PTFE red UltraClean	55° Shore A	1.0	100

## UltraBond Seals ND9 *fisherbrand*

Analogous to the LECTRABOND closure from Waters and the INTERSEAL closure from Agilent, we also offer several UltraBond short thread seals, including some manufactured to an improved Instrument Manufacturer Quality. The new septa material is an especially pure silicone, which optimises product safety even more, whilst the PTF layer has also been modified to permit even easier needle penetration. With the UltraBond seal, the cap and liner form an inseparable unit, such that the liner cannot be dislocated or pushed into the vial, even with a blunt needle.



	Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
1	10264992	PP short thread cap black, 6mm centre hole	Silicone white/PTFE red	45° share A	1.3	100
2	10418092	PP short thread cap blue, 6mm centre hole	Silicone beige/PTFE white, improved IMQ*	45° share A	1.3	100
	10122612	PP short thread cap blue, 6mm centre hole	Silicone beige/PTFE white, with slit, improved IMQ*	45° share A	1.3	100



## Special 2-in-1 kits for Waters instruments

fisherbrand



Cat. No	Item	Description	Pack qty
<b>12960891</b>	2-in-1 kit	2-in-1 kit consisting of: 10162512 + 10418092	100
<b>10162512</b>	Vial	1.5mL short thread vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening	100
<b>10418092</b>	Seal	9mm UltraBond PP short thread cap, blue, centre hole; silicone beige/PTFE white, 45° Shore A, 1.3mm	100
<b>12950891</b>	2-in-1 kit	2-in-1 kit consisting of: 10162512 + 10122612	100
<b>10162512</b>	Vial	1.5mL short thread vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening	100
<b>10122612</b>	Seal	9mm UltraBond PP short thread cap, blue, centre hole; silicone beige/PTFE white, 45° Shore A, 1.3mm, slit	100
<b>12910901</b>	2-in-1 kit	2-in-1 kit consisting of: 11575884 + 10418092	100
<b>11575884</b>	Vial	1.5mL short thread vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening, label and filling lines	100
<b>10418092</b>	Seal	9mm UltraBond PP short thread cap, blue, centre hole; silicone beige/PTFE white, 45° Shore A, 1.3mm	100
<b>11860972</b>	2-in-1 kit	2-in-1 kit consisting of: 11575884 + 10418092	100
<b>11575884</b>	Vial	1.5mL short thread vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening, label and filling lines	100
<b>10418092</b>	Seal	9mm UltraBond PP short thread cap, blue, centre hole; silicone beige/PTFE white, 45° Shore A, 1.3mm, slit	100
<b>12920901</b>	2-in-1 kit	2-in-1 kit consisting of: 10080952 + 10418092	100
<b>10080952</b>	Vial	1.5mL short thread vial, 32 x 11.6mm, amber glass, 1st hydrolytic class, wide opening, label and filling lines	100
<b>10418092</b>	Seal	9mm UltraBond PP short thread cap, blue, centre hole; silicone beige/PTFE white, 45° Shore A, 1.3mm	100
<b>12570186</b>	2-in-1 kit	2-in-1 kit consisting of: 10080952 + 10122612	100
<b>10080952</b>	Vial	1.5mL short thread vial, 32 x 11.6mm, amber glass, 1st hydrolytic class, wide opening, label and filling lines	100
<b>10122612</b>	Seal	9mm UltraBond PP short thread cap, blue, centre hole; silicone beige/PTFE white, 45° Shore A, 1.3mm, slit	100

## Short thread vials ND9, wide opening with pre-screwed PP short thread seals ND9 and/or pre-assembled micro-inserts with wide opening

fisherbrand

- Pre-screwed vials reduce the risk of contamination during cap assembly in the laboratory
- Pre-screwed vials are available with any of the short thread vials and any seal of your choice



Cat. No	Description	Seal	Pack qty
<b>12990861</b>	1.5mL Short thread vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening (vial Cat.No 10162512)	Pre-screwed with PP short thread cap blue, 6mm centre hole, silicone white/PTFE blue, with slit, 55° Shore A, 1.0mm (seal Cat.No 11521434)	100
<b>11585924</b>	1.5mL Short thread vial, 32 x 11.6mm, amber glass, 1st hydrolytic class, wide opening, label + filling lines (vial Cat.No 10080952)	Pre-screwed with PP short thread cap blue, 6mm centre hole, silicone white/PTFE blue, with slit, 55° Shore A, 1.0mm (seal Cat.No 11521434)	100
<b>11595924</b>	1.5mL Short thread vial, 32 x 11.6mm, amber glass, 1st hydrolytic class, wide opening, label + filling lines (vial Cat.No 10080952)	Pre-screwed with PP UltraBond Seal blue, 6mm centre hole, silicone beige/PTFE white, with slit (approved IMQ*), 45° Shore A, 1.3mm (seal Cat.No 10122612)	100
<b>12356763</b>	1.5mL Short thread vial, 32 x 11.6mm, amber glass, 1st hydrolytic class, wide opening, label + filling lines (vial Cat.No 10080952)	Pre-screwed with PP short thread cap transparent, centre hole, silicone white/PTFE red, 55° Shore A, 1.0mm, pre-cut (Y) (seal Cat.No 10034364)	100

## 2-in-1 kits with short thread vials ND9

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## HPLC and GC Certified vial kits (short thread vials and short thread seals ND9)

fisherbrand

Vial certifications are getting far more critical, in order to ensure process reproducibility and to avoid possible sources of errors right from the beginning. For Fisherbrand, the highest quality, consistency and quality control have always been very important, as exemplified by our range of 'HPLC and GC Certified' vials and closures.



1

2

Cat. No	Description	Seal	Pack qty
<b>1 13429748</b>	HPLC/GC certified vial kit 1.5mL short thread vial, clear glass, 1st hydrolytic class, label + filling lines	UltraClean seal: 9mm PP short thread cap, blue, centre hole; silicone white/PTFE red, 1.0mm	100
<b>2 13439748</b>	HPLC/GC certified vial kit 1.5mL short thread vial, amber glass, 1st hydrolytic class, label + filling lines	UltraClean seal: 9mm PP short thread cap, blue, centre hole; silicone white/PTFE red, 1.0mm	100

Cat. No	Item	Description	Pack qty
<b>11787497</b>	2-in-1 kit	2-in-1 kit consisting of: 10162512 + 11581424	100
<b>10162512</b>	Vial	1.5mL Short thread vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening	100
<b>11581424</b>	Seal	PP short thread cap blue, 6mm centre hole; UltraClean silicone white/PTFE red, 55° Shore A, 1.0mm	100
<b>15124649</b>	2-in-1 kit	2-in-1 kit consisting of: 10162512 + 11521434	100
<b>10162512</b>	Vial	1.5mL Short thread vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening	100
<b>11521434</b>	Seal	PP short thread cap blue, 6mm centre hole; silicone white/PTFE blue, 55° Shore A, 1.0mm, with slit	100
<b>15532320</b>	2-in-1 kit	2-in-1 kit consisting of: 11575884 + 11501454	100
<b>11575884</b>	Vial	1.5mL Short thread vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening, label and filling lines	100
<b>11501454</b>	Seal	PP short thread cap, black, 6mm centre hole; silicone white/PTFE blue, 55° Shore A, 1.0mm, slit	100
<b>12951251</b>	2-in-1 kit	2-in-1 kit consisting of: 10162512 + 11541424	100
<b>10162512</b>	Vial	1.5mL Short thread vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening	100
<b>11541424</b>	Seal	PP short thread cap transparent, 6mm centre hole; UltraClean silicone white/PTFE red, 55° Shore A, 1.0mm	100
<b>11395991</b>	2-in-1 kit	2-in-1 kit consisting of: 10080952 + 11541424	100
<b>10080952</b>	Vial	1.5mL Short thread vial, 32 x 11.6mm, amber glass, 1st hydrolytic class, wide opening, label and filling lines	100
<b>11541424</b>	Seal	PP short thread cap transparent, 6mm centre hole; silicone white/PTFE red, 55° Shore A, 1.0mm	100



## SCREW NECK VIALS ND10

These vials are preferentially used on autosampler models from the following manufacturers: Jasco, PerkinElmer, Shimadzu, Varian and Waters.

- Packed in a cleanroom environment as the new standard for chromatography vials
- Wide opening enables easy filling with viscous materials

### Screw neck vials ND10, wide opening, *fisherbrand* 10-425 thread and appropriate micro-inserts



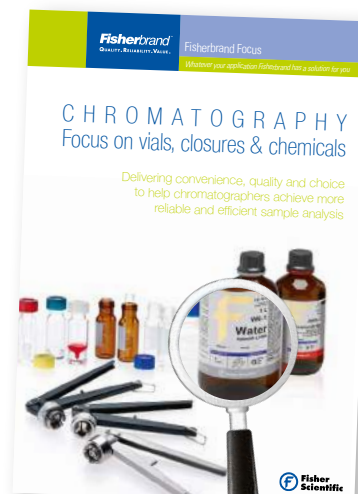
Cat. No	Description	Dimensions, mm	Glass type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res.Vol (μL)	Pack qty
<b>1</b> 11511474	1.5mL Screw neck vial, 10-425 Thread, 1st hydrolytic class, wide opening	32 x 11.6	Clear	2.0	1.50	200	<120	100
<b>2</b> 10521593	1.5mL Screw neck vial, 10-425 thread, 1st hydrolytic class, wide opening, label + filling lines	32 x 11.6	Clear	2.0	1.50	200	<120	100
<b>3</b> 11531474	1.5mL Screw neck vial, 10-425 thread, 1st hydrolytic class, wide opening, label + filling lines	32 x 11.6	Amber	2.0	1.50	200	<120	100
<b>4</b> 11752418	0.1mL Micro-insert, 1st hydrolytic class, 15mm top (silanised version available Cat. No 11531314)	31 x 6	Clear	0.34	0.25	30	<4	10 x 100
<b>5</b> 11777557	0.1mL Micro-insert, 1st hydrolytic class, 12mm top	31 x 6	Clear	0.35	0.30	30	<4	10 x 100
<b>6</b> 11805863	0.1mL Micro-insert, 1st hydrolytic class, with assembled plastic spring (silanised version available Cat. No 11541314)	29 x 5.7	Clear	0.3	0.25	30	<4	10 x 100
<b>7</b> 11762418	0.2mL Micro-insert, 1st hydrolytic class, flat bottom	31 x 6	Clear	0.5	0.35	40	<8	10 x 100

### Polypropylene screw caps and seals ND10

*fisherbrand*

Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
<b>1</b> 11551474	PP screw cap black, 7mm centre hole	Natural rubber red-orange/TEF transparent	60° Shore A	1.3	100
<b>2</b> 11561474	PP screw cap black, 7mm centre hole	Silicone white/PTFE red UltraClean	45° Shore A	1.3	100
<b>3</b> 10051132	PP screw cap black, 7mm centre hole	Silicone white/PTFE beige UltraClean	45° Shore A	1.5	100
<b>4</b> 11571474	PP screw cap black, 7mm centre hole	PTFE red/silicone white/PTFE red	45° Shore A	1.0	100
<b>5</b> 11581474	PP screw cap black, 7mm centre hole	Silicone white/PTFE blue, with slit	55° Shore A	1.5	100
<b>6</b> 11501484	PP screw cap black, 7mm closed top	Natural rubber red-orange/TEF transparent	60° Shore A	1.3	100

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*fisherbrand*

TFVol. = Total Volume/Filling Volume (mL)

UsVol. = Usable Volume (mL)

MWVol. = Minimum Working Volume (μL)

Res. Vol. = Residual Volume (μL)

## CRIMP NECK VIALS ND11

These vials are preferentially used on autosampler models from the following manufacturers: Agilent, Carlo Erba, CTC, DANI, Fisons, Gerstel, Jasco, PerkinElmer, Shimadzu, Spark, Thermo Scientific and Varian.

- Vials with integrated micro-insert are also available now in clear and amber glass
- Use our TopSert microvial with fused-in micro-inserts, absolutely centred and which forms a tight seal up against the septa due to its slightly proud top rim
- Vials with a barcode label can be obtained as well as pre-crimped vials
- Standard vials for GC and HPLC
- Microlitre vials (11505894/11545914) are ideal for sample preparation (reactions, concentrations) or as an alternative for crimp neck vials with conical inserts

## Crimp neck vials ND11, wide opening and microvials with crimp neck ND11

fisherbrand

Cat. No	Description	Dimensions, mm	Glass type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res.Vol (μL)	Pack qty
<b>1</b> 10326042	1.5mL Crimp neck vial, 1st hydrolytic class, wide opening small opening 10081022 (silanised version available Cat. No 11555904)	32 x 11.6	Clear	2.0	1.50	200	<100	100
<b>2</b> 11535884	1.5mL Crimp neck vial, 1st hydrolytic class, wide opening, label + filling lines (silanised version available Cat. No 15572310)	32 x 11.6	Clear	2.0	1.50	200	<100	100
<b>3</b> 11545884	1.5mL Crimp neck vial, 1st hydrolytic class, wide opening, label + filling lines (silanised version available Cat. No 11525904)	32 x 11.6	Amber	2.0	1.50	200	<100	100
<b>4</b> 11565894	Crimp neck vial with integrated 0.2mL Micro-insert, 1st hydrolytic class, label + filling lines 'Top Bonded'	32 x 11.6	Clear	0.4	0.21	25	<1	100
<b>5</b> 10678005	Crimp neck vial with integrated 0.2mL Micro-insert, 1st hydrolytic class, label + filling lines 'Top Bonded'	32 x 11.6	Amber	0.4	0.2	25	<1	100
<b>6</b> 12672465	Snap/crimp vial ND11 with integrated Micro- Insert, 1st hydrolytic class 'Base Bonded'	32 x 11.6	Clear	0.4	0.3	30	<3	100
<b>7</b> 15219468	Snap/crimp vial ND11 with integrated micro- insert, 1st hydrolytic class 'Base Bonded'	32 x 11.6	Amber	0.4	0.3	30	<3	1000
<b>8</b> 11505894	1.1mL Microlitre vial, 1st hydrolytic class (silanised version available Cat. No 11595904)	32 x 11.6	Clear	1.8	1.5	40	<8	100
<b>9</b> 11545914	0.9mL Total microlitre snap/crimp ring Vial ND11, 1st hydrolytic class	32 x 11.6	Clear	1.4	1.2	25	<1	100
<b>10</b> 11505884	1.1mL Microvial, 1st hydrolytic class, conical	32 x 11.6	Clear	1.3	1.1	30	<4	100
<b>11</b> 11865813	0.9mL Microvial, 1st hydrolytic class, conical	32 x 10	Clear	1.1	0.9	30	<2	10 x 100
<b>12</b> 11585914	TopSert TPX snap/crimp vial ND11, with integrated 0.2mL glass micro-insert (silanised version available Cat. No 11505924)	32 x 11.6	Clear	0.35	0.2	30	<4	100
<b>13</b> 11525924	TopSert TPX snap/crimp vial ND11, with integrated 0.2mL glass micro-insert (silanised version available Cat. No 11545924)	32 x 11.6	Amber	0.35	0.2	30	<4	100



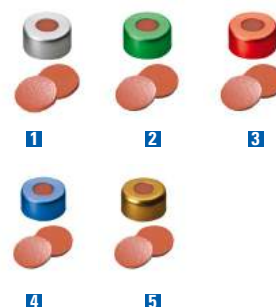
## Aluminium crimp caps with seals ND11

fisherbrand

### Natural rubber/TEF seals

- Three layer septa of natural rubber/butyl/TEF combines the good physical properties of natural rubber (resealability) with the good chemical properties of butyl (cleanliness)
- Temperature resistant from -40°C up to +120°C
- Standard seal for GC and HPLC
- Ideal for multiple injections due to high resealability

Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
<b>1</b> 10457692	Aluminium cap clear lacquered, 5.5mm centre hole	Natural rubber red-orange/TEF transparent approved IMQ*	60° Shore A	1.0	100
<b>1</b> 10204712	Aluminium cap clear lacquered, 5.5mm centre hole	Natural rubber red-orange/butyl red/TEF transparent	45° Shore A	1.0	100
<b>1</b> 15239468	Aluminium cap clear lacquered, 5.5mm centre hole	Natural rubber red-orange/TEF transparent	60° Shore A	1.0	1000
<b>2</b> 11591494	Aluminium cap green lacquered, 5.5mm centre hole	Natural rubber red-orange/butyl red/TEF transparent	45° Shore A	1.0	100
<b>3</b> 11501504	Aluminium cap red lacquered, 5.5mm centre hole	Natural rubber red-orange/butyl red/TEF transparent	45° Shore A	1.0	100
<b>4</b> 11511504	Aluminium cap blue lacquered, 5.5mm centre hole	Natural rubber red-orange/butyl red/TEF transparent	45° Shore A	1.0	100
<b>5</b> 11521504	Aluminium cap gold lacquered, 5.5mm centre hole	Natural rubber red-orange/butyl red/TEF transparent	45° Shore A	1.0	100



TFVol. = Total Volume/Filling Volume (mL)  
 UsVol. = Usable Volume (mL)  
 MWVol. = Minimum Working Volume (μL)  
 Res. Vol. = Residual Volume (μL)

## Red rubber/PTFE seals ND11

- Temperature resistant from -40°C up to +110°C
- Softer alternative to natural rubber/TEF and butyl/PTFE
- Cleaner than natural rubber or butyl; low fragmentation
- Red rubber is a synthetic rubber



	Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
1	11595864	Aluminium cap clear lacquered, 5.5mm centre hole	Red rubber/PTFE beige approved IMQ*	45° Shore A	1.0	100
2	11505874	Aluminium cap green lacquered, 5.5mm centre hole	Red rubber/PTFE beige approved IMQ*	45° Shore A	1.0	100
3	10044364	Aluminium cap red lacquered, 5.5mm centre hole	Red rubber/PTFE beige approved IMQ*	45° Shore A	1.0	100
4	11525874	Aluminium cap blue lacquered, 5.5mm centre hole	Red rubber/PTFE beige approved IMQ*	45° Shore A	1.0	100
5	11535874	Aluminium cap gold lacquered, 5.5mm centre hole	Red rubber/PTFE beige approved IMQ*	45° Shore A	1.0	100

## Other aluminium crimp caps with seals ND11

- PTFE is very inert and high temperature resistant mainly for uncritical HPLC analysis
- Total phthalate-free seal (TPF seal), septa material free of any elastomers and halogens
- Butyl as synthetic rubber is much cleaner than natural rubber
- Butyl is temperature resistant from -40°C up to +120°C



	Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
1	15522310	11mm TPF combination seal: aluminium cap, clear lacquered, 5.5mm centre hole	Aluminium liner, (sealed by an additional assembled ring)	-	0.06	100
2	15532310	11mm Combination seal: aluminium cap, clear lacquered, 5.5mm centre hole	PTFE virginal (sealed by an additional assembled ring)	53° Shore D	0.25	100
3	10162562	Aluminium cap clear lacquered, 5.5mm centre hole, roll groove	PTFE virginal	53° Shore D	0.25	100
4	10033482	Aluminium cap clear lacquered, 5.5mm centre hole	Butyl red/PTFE grey	55° Shore A	1.3	100
5	11585864	Aluminium cap clear lacquered, 5.5mm centre hole	PTFE grey/butyl red/PTFE grey	55° Shore A	1.3	100

## Silicone/PTFE seals ND11

- Cross-slitted liner as penetration aid and for low coring, but also for avoiding vacuum in the vial during multiple injections
- Temperature resistant from -60°C up to +200°C
- Much cleaner than natural rubber, red rubber or butyl



	Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
1	10264612	Aluminium cap clear lacquered, 5.5mm centre hole	Silicone white/PTFE red UltraClean	45° Shore A	1.3	100
1	11565854	Aluminium cap clear lacquered, 5.5mm centre hole	Silicone cream/PTFE red	55° Shore A	1.5	100
2	11535864	Aluminium cap clear lacquered, 5.5mm centre hole	Silicone dark blue/PTFE white	45° Shore A	1.3	100
3	11551494	Aluminium cap clear lacquered, 5.5mm centre hole	PTFE red/silicone white/PTFE red	45° Shore A	1.0	100
4	10274802	Aluminium cap clear lacquered, 5.5mm centre hole	Silicone white/PTFE blue cross-slitted	55° Shore A	1.5	100
5	11565864	Aluminium cap green lacquered, 5.5mm centre hole	Silicone white/PTFE red UltraClean	45° Shore A	1.3	100
6	11505864	Aluminium cap red lacquered, 5.5mm centre hole	Silicone white/PTFE red UltraClean	45° Shore A	1.3	100
7	11515864	Aluminium cap blue lacquered, 5.5mm centre hole	Silicone white/PTFE red UltraClean	45° Shore A	1.3	100
8	11555864	Aluminium cap gold lacquered, 5.5mm centre hole	Silicone white/PTFE red UltraClean	45° Shore A	1.3	100

## Magnetic crimp caps and seals ND11 (for CTC PAL and Thermo Scientific TriPlus autosamplers)



	Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
1	11531504	Magnetic cap, gold lacquered, 5mm centre hole	Silicone white/PTFE red UltraClean	45° Shore A	1.3	100
2	11541504	Magnetic cap, gold lacquered, 5mm centre hole	PTFE red/silicone white/PTFE red	45° Shore A	1.0	100

\*Instrument Manufacturer Quality (IMQ)

## SNAP RING VIALS ND11

These vials are preferentially used with autosampler models from the following manufacturers: Agilent, CTC, DANI, Dionex, Jasco, Shimadzu, Spark, Thermo Scientific, Varian, VWR (Merck™)/Hitachi and Waters.

- We recommend this vial/closure system for HPLC applications only
- Universally usable vials for almost all autosamplers, even for those with robotic handling
- Micro-inserts can be delivered pre-assembled in vials
- Vials can also be crimped with a standard 11mm aluminium crimp seal, as the two snap ring lips have the same height as a crimp neck
- Wide opening enables easy filling with viscous materials

## Snap ring vials ND11, wide opening

*fisherbrand*

	Cat. No	Description	Dimensions, mm	Glass type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res.Vol (μL)	Pack qty
1	11525894	1.5mL Snap ring vial, 1st hydrolytic class, wide opening (silanised version available Cat. No 11565904)	32 x 11.6	Clear	1.9	1.5	200	<100	100
2	11535894	1.5mL Snap ring vial, 1st hydrolytic class, wide opening, label + filling lines (silanised version available Cat No 15582310)	32 x 11.6	Clear	1.9	1.5	200	<100	100
3	11545894	1.5mL Snap ring vial, 1st hydrolytic class, wide opening, label + filling lines (silanised version available Cat. No 11515914)	32 x 11.6	Amber	1.9	1.5	200	<100	100
4	11545914	0.9mL Total microlitre snap ring vial ND11, 1st hydrolytic class	32 x 11.6	Clear	1.4	1.2	25	<1	100
5	12672465	Snap/crimp vial with integrated micro-insert, 1st hydrolytic class 'Base Bonded'	32 x 11.6	Clear	0.4	0.3	30	<3	100
6	15219468	Snap/crimp vial with integrated micro-insert, 1st hydrolytic class 'Base Bonded'	32 x 11.6	Amber	0.4	0.3	30	<3	1000
7	11585914	TopSert TPX snap/crimp vial ND11, with integrated 0.2mL glass micro-insert (silanised version available Cat. No 11505924)	32 x 11.6	Clear	0.35	0.2	20	<4	100
8	11525924	TopSert TPX snap/crimp vial ND11, with integrated 0.2mL glass micro-insert (silanised version available Cat. No 11545924)	32 x 11.6	Amber	0.35	0.2	20	<4	100
9	11575964	0.3mL PP snap ring microvial	32 x 11.6	Transparent	0.4	0.25	30	<4	100
10	11595964	0.3mL TPX snap ring microvial	32 x 11.6	Clear	0.4	0.25	30	<4	100
11	10705203	0.7mL PP snap ring microvial	32 x 11.6	Transparent	0.9	0.64	50	<25	100
12	10488082	0.3mL PP snap ring microvial	32 x 11.6	Amber	0.4	0.25	30	<4	100









## PE snap ring caps and seals ND11

- Choose synthetic red rubber/PTFE as a cost-effective alternative, but unlike natural rubber, synthetic rubber is not suitable for multiple injections but is nevertheless softer for safer needle penetration
- Snap ring caps are also available in a softer PE material in red or blue. They are easier to handle and push on/remove than the hard-cap version, but are less tight-fitting
- Snap ring cap with the design of a crimp cap; therefore suitable for robotic handling
- For quick and simple vial closing, saving time cost and effort
- Vials can also be sealed with an aluminium crimp seal ND11







### PE snap ring cap ND11 transparent, 6mm centre hole, hard or soft version

*fisherbrand*

					
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Cat. No	Septa material		Durometer	Thickness, mm	Pack qty
<b>Hard cap</b>					
<b>10233872</b>	Natural rubber red-orange/TEF transparent		60° Shore A	1.0	100
<b>15272056</b>	Red rubber/PTFE beige IMQ*		45° Shore A	1.0	100
<b>11545934</b>	Silicone white/PTFE red UltraClean		45° Shore A	1.3	100
<b>10631793</b>	PTFE red/silicone white/PTFE red		45° Shore A	1.0	100
<b>10192172</b>	Silicone white/PTFE blue, cross-slitted		55° Shore A	1.0	100
<b>11525964</b>	Silicone white/PTFE red, pre-cut (Y)		45° Shore A	1.3	100
<b>Soft cap</b>					
<b>10516655</b>	Natural rubber red-orange/TEF transparent		60° Shore A	1.0	100
<b>10658205</b>	Red rubber/PTFE beige IMQ*		45° Shore A	1.0	100
<b>10195474</b>	Silicone white/PTFE red UltraClean		45° Shore A	1.3	100
<b>10379884</b>	PTFE red/silicone white/PTFE red		45° Shore A	1.0	100
<b>10014224</b>	Silicone white/PTFE blue, cross-slitted		55° Shore A	1.0	100
<b>10768975</b>	Silicone white/PTFE red, pre-cut (Y)		45° Shore A	1.3	100

### PE snap ring cap ND11 blue, 6mm centre hole, hard or soft version

*fisherbrand*

					
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Cat. No	Septa material		Durometer	Thickness, mm	Pack qty
Hard cap					
<b>1</b>	<b>11575934</b>	Natural rubber red-orange/TEF transparent	60° Shore A	1.0	100
<b>2</b>	<b>15522320</b>	Red rubber/PTFE beige, IMQ*	45° Shore A	1.0	100
<b>3</b>	<b>10355962</b>	Silicone white/PTFE red UltraClean	45° Shore A	1.3	100
<b>4</b>	<b>11585934</b>	PTFE red/silicone white/PTFE red	45° Shore A	1.0	100
<b>5</b>	<b>11595934</b>	Silicone white/PTFE blue, cross-slitted	55° Shore A	1.0	100
<b>6</b>	<b>10668205</b>	Silicone white/PTFE red, pre-cut (Y)	45° Shore A	1.3	100
Soft cap					
<b>1</b>	<b>10421245</b>	Natural rubber red-orange/TEF transparent	60° Shore A	1.0	100
<b>2</b>	<b>11595944</b>	Red rubber/PTFE beige, IMQ*	45° Shore A	1.0	100
<b>3</b>	<b>10369694</b>	Silicone white/PTFE red UltraClean	45° Shore A	1.3	100
<b>4</b>	<b>10267964</b>	PTFE red/silicone white/PTFE red	45° Shore A	1.0	100
<b>5</b>	<b>10004754</b>	Silicone white/PTFE blue, cross-slitted	55° Shore A	1.0	100
<b>6</b>	<b>10094364</b>	Silicone white/PTFE red, pre-cut (Y)	45° Shore A	1.3	100

## SCREW NECK VIALS ND13

These vials are preferentially used on autosampler models from the following manufacturers: Dionex, Shimadzu, Spark, Varian, VWR (Merck)/Hitachi and Waters (Wisp 48 Position Carousel)

- Vials are packed in a cleanroom in reclosable, tamper-proof evident PP-boxes
- Any combination of 4mL screw neck vial ND13 with one of our 13mm PP screw seals can be obtained as a 2-in-1 kit
- Upon request barcode labelled vials can also be supplied
- For storage purposes also available with closed top screw seals
- Acrylic vial racks with 40 cavities for 4mL vials

### Screw neck vials ND13 and appropriate micro-inserts

*fisherbrand*



	Cat. No	Description	Dimensions, mm	Glass type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res.Vol (μL)	Pack qty
1	10571013	4mL Screw neck vial, 1st hydrolytic class	45 x 14.7	Clear	5	4.1	800	<400	100
2	11576044	4mL Screw neck vial, 1st hydrolytic class, label + filling lines	45 x 14.7	Clear	5	4.1	800	<400	100
3	11556044	4mL Screw neck vial, amber glass, 1st hydrolytic class	45 x 14.7	Amber	5	4.1	800	<400	100
4	11586044	4mL Screw neck vial, 1st hydrolytic class, label + filling lines	45 x 14.7	Amber	5	4.1	800	<400	100
5	11826912	0.3mL Micro-insert, 1st hydrolytic class, 15mm top metal spring required!	40 x 6	Clear	0.5	0.4	40	<9	10 x 100
6	10682733	Spring, for micro-insert 11826912	50 x 7.5	-	-	-	-	-	100

### Polypropylene screw caps with seals ND13

*fisherbrand*

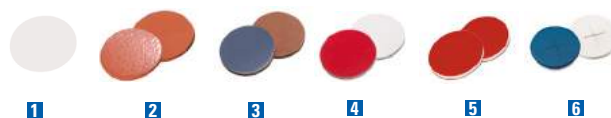


- Ready to use combination seals; no time consuming and 'tricky' assembly
- No contamination of the liner that normally is caused by manual assembly
- Available as closed or open top screw seals with 13-425 thread

	Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
1	10531593	Polypropylene screw cap black, 8.5mm centre hole	Natural rubber red-orange/TEF transparent	60° Shore A	1.3	100
2	11506064	Polypropylene screw cap black, 8.5mm centre hole	Butyl red/PTFE grey	55° Shore A	1.3	100
3	10010922	Polypropylene screw cap black, 8.5mm centre hole	Silicone cream/PTFE red	55° Shore A	1.5	100
4	11556054	Polypropylene screw cap black, 8.5mm centre hole	Silicone dark blue/PTFE white	45° Shore A	1.3	100
5	10265232	Polypropylene screw cap black, 8.5mm centre hole	PTFE red/silicone white/PTFE red	45° Shore A	1.0	100
6	10080962	Polypropylene screw cap black, 8.5mm centre hole	Silicone white/PTFE blue, cross-slitted	55° Shore A	1.5	100
7	11506054	Polypropylene screw cap black, closed top	Natural rubber red-orange/TEF transparent	60° Shore A	1.3	100
8	12911221	Polypropylene screw cap black, closed top	Butyl red/PTFE grey	55° Shore A	1.3	100
9	11536054	Polypropylene screw cap black, closed top	Silicone cream/PTFE red	55° Shore A	1.5	100

### Septa 12mm for vial seals ND13

*fisherbrand*



	Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
1	11804950	PTFE virginal	53° Shore D	0.25 (only unassembled)	1000
2	11814950	Natural rubber red-orange/TEF transparent	60° Shore A	1.3	1000
3	11757597	Butyl red/PTFE grey	55° Shore A	1.3	1000
4	11894940	Silicone cream/PTFE red	55° Shore A	1.5	1000
5	11844950	PTFE red/silicone white/PTFE red	45° Shore A	1.0	1000
6	11824950	Silicone white/PTFE blue	55° Shore A	1.5 cross-slitted	1000

### Polypropylene screw caps ND13

*fisherbrand*



	Cat. No	Description	Pack qty
1	11596034	Polypropylene screw cap, black, 8.5mm centre hole	100
2	11506044	Polypropylene screw cap, black, closed top	100
3	11526044	Polypropylene screw cap, white, 8.5mm centre hole	100
4	11516044	Polypropylene screw cap, white, closed top	100

TFVol. = Total Volume/Filling Volume (mL)

UsVol. = Usable Volume (mL)

MWVol. = Minimum Working Volume (μL)

Res. Vol. = Residual Volume (μL)



## SHELL VIALS

These vials are preferentially used on autosampler models from the following manufacturers: Alcott, Gilson, Shimadzu and Waters (Wisp 96 48-position carousel)

- PE plugs of 10145424/10506075, 11516074/10455982, 1155914/11565914 may be used for the fixation of a micro-insert eliminating the need for springs
- For the 1mL Shell vials, plugs with and without insertion barriers for the micro-inserts are available. The option without barrier demonstrates a better valving effect with regard to vacuum formation
- Star-shaped diaphragm enables easy penetration of the PE plug
- 10145424 + 10506075 with soft style plug for Waters™ and Shimadzu
- Recommended for HPLC usage
- A handy and inexpensive vial/closure combination for uncritical analyses

### Shell vials 1mL and 4mL and appropriate micro-inserts

fisherbrand



Cat. No	Description	Dimensions, mm	Glass type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res.Vol (μL)	Pack qty
<b>1 10306062</b>	1mL Shell vial, 1st hydrolytic class, 6mm PE plug, transparent, for ALCOTT	35 x 7.8	Clear	1.1	0.8	60	<25	100
<b>2 10145424*</b>	1mL Shell vial, 1st hydrolytic class, 8mm PE plug, soft, without insertion barrier for micro-insert, transparent for Waters™ Wisp 96 pos. carousel, Shimadzu	40 x 8.2	Clear	1.4	1	100	<80	100
<b>3 10506075*</b>	1mL Shell vial, 1st hydrolytic class, 8mm PE plug, soft, without insertion barrier for micro-insert, transparent for Waters™ Wisp 96 pos. carousel, Shimadzu	40 x 8.2	Amber	1.4	1	100	<80	100
<b>4 11792368</b>	0.1mL Micro-insert, 1st hydrolytic class, 13mm top (only in comb. With 11561374 + 10224852)	34 x 5	Clear	0.2	0.15	25	<0.1	10 x 100
<b>5 11516074</b>	4mL Shell vial, 1st hydrolytic class, 15mm PE plug, transparent for Waters™ Wisp 48 pos. carousel	44.6 x 14.65	Clear	5.5	4	1000	<800	100
<b>6 10455982</b>	4mL Shell vial, 1st hydrolytic class, 15mm PE plug, transparent for Waters™ Wisp 48 pos. carousel	44.6 x 14.65	Amber	5.5	4	1000	<800	100
<b>7 11728276</b>	0.3mL Micro-insert, 1st hydrolytic class, 13mm top	43.45 x 6	Clear	0.4	0.3	50	<8	10 x 100

### Shell vials 2mL and appropriate micro-inserts

fisherbrand



Cat. No	Description	Dimensions, mm	Glass type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res.Vol (μL)	Pack qty
<b>1 11555914</b>	2mL Shell vial, 1st hydrolytic class, 12mm PE plug, transparent for various instruments	31.5 x 11.6	Clear	2.3	1.5	200	<100	100
<b>2 11565914</b>	2mL Shell vial, 1st hydrolytic class, 12mm PE plug, transparent for various instruments	31.5 x 11.6	Amber	2.3	1.5	200	<100	100
<b>3 10244802</b>	0.1mL Micro-insert, 1st hydrolytic class, 15mm top (silanised version available Cat. No 11531314)	31 x 6	Clear	0.34	0.25	30	<4	100
<b>4 10770215</b>	0.1mL Micro-insert, 1st hydrolytic class, 12mm top	31 x 6	Clear	0.35	0.3	30	<4	10 x 100
<b>5 11521314</b>	0.2mL Micro-insert, 1st hydrolytic class, flat bottom (silanised version available Cat. No 12396192)	31 x 6	Clear	0.5	0.35	40	<8	10 x 100

\*If a micro-insert is used in combination with the shell vial, please use 11561374 and 10224852, respectively, as they have an insertion barrier for micro-inserts. However, please note that the flexibility of the plug with the insertion barrier is reduced, so that plug push-in and needle penetration is more difficult.

TFVol. = Total Volume/Filling Volume (mL)

UsVol. = Usable Volume (mL)

MWVol. = Minimum Working Volume (μL)

Res. Vol. = Residual Volume (μL)

## HEADSPACE ND20 (ND18) VIALS

fisherbrand

This headspace vial range has been specially selected to help you quickly identify those consumables (vials and seals) suited to your own instruments.



Cat. No	Description	Dimensions, mm	Glass type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res.Vol (μL)	Compatibility	Pack qty
<b>10663303</b>	5mL Head-space vial, 1st hydrolytic class, rounded bottom	38.2 x 22	Clear	9.4	5	1500	800	Perkin Elmer	100
<b>1 10192652</b>	5mL Crimp neck vial, 1st hydrolytic class, flat bottom	38 x 20	Clear	8	5	1500	800	Varian	100
<b>10681033</b>	10mL Head-space vial, 1st hydrolytic class, DIN-crimp neck, rounded bottom	46 x 22.5	Clear	12.3	10	1500	800	Carlo Erba, CTC, Fisons, Varian (CP)	100
<b>2 10195012</b>	10mL Head-space vial, 1st hydrolytic class, DIN-crimp neck, rounded bottom	46 x 22.5	Amber	12.3	10	1500	800	Carlo Erba, CTC, Fisons, Varian (CP)	100
<b>11520545</b>	10mL Crimp neck vial, 1st hydrolytic class, flat bottom	54.5 x 20	Clear	12.2	10	1500	800	Varian	100
<b>10680843</b>	10mL Head-space vial, 1st hydrolytic class, DIN-crimp neck, long neck, flat bottom	46 x 22.5	Clear	11.7	10	1500	800	Carlo Erba, Dani, Fisons, Agilent	100
<b>10080822</b>	20mL Head-space vial, 1st hydrolytic class, rounded bottom	75.5 x 23	Clear	22	20	1500	800	Perkin Elmer, Tekmar	100
<b>12981241</b>	20mL Head-space vial, 1st hydrolytic class, rounded bottom	75.5 x 23	Amber	22	20	1500	800	Perkin Elmer, Tekmar	100
<b>10152512</b>	20mL Head-space vial, 1st hydrolytic class, rounded bottom, label + filling lines	75.5 x 23	Clear	22.4	20	1500	800	Perkin Elmer, Tekmar	100
<b>3 15552340</b>	20mL Head-space vial, 1st hydrolytic class, bevelled crimp neck, long neck, flat bottom	75.5 x 22.75	Clear	21.2	20	1500	800	Agilent	100
<b>12971231</b>	20mL Head-space vial, 1st hydrolytic class, DIN-crimp neck, long neck, flat bottom	75.5 x 22.5	Clear	21.2	20	1500	800	Carlo Erba, Dani, Fisons, Agilent	100
<b>4 10070952</b>	20mL Head-space vial, 1st hydrolytic class, DIN-crimp neck, long neck, rounded bottom	75.5 x 22.5	Clear	20.9	20	1500	800	CTC PAL (Varian, Gerstel, Atas, Shimadzu), TriPlus HS	100

TFVol. = Total Volume/Filling Volume (mL)

UsVol. = Usable Volume (mL)

MWVol. = Minimum Working Volume (μL)

Res. Vol. = Residual Volume (μL)

Cat. No	Description	Dimensions, mm	Glass type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res.Vol (μL)	Compatibility	Pack qty
<b>12910991</b>	20mL Head-space vial, 1st hydrolytic class, DIN-crimp neck, long neck, rounded bottom	75.5 x 22.5	Amber	20.9	20	1500	800	CTC PAL (Varian, Gerstel, Atas, Shimadzu), TriPlus HS	100
<b>10510323</b>	20mL SPME Vial, 1st hydrolytic class, rounded bottom, special crimp neck	75.5 x 22.5	Clear	21.2	20	1500	800	SPME Vial for CTC PAL	100
<b>11506114</b>	10mL Precision thread vial ND18, 1st hydrolytic class, rounded bottom	46 x 22.5	Clear	10.8	8	1500	800	CTC PAL (Varian, Gerstel, Atas, Shimadzu, Agilent)	100
<b>5 11526114</b>	10mL Precision thread vial ND18, 1st hydrolytic class, rounded bottom	46 x 22.5	Amber	10.8	8	1500	800	CTC PAL (Varian, Gerstel, Atas, Shimadzu, Agilent)	100
<b>6 12941221</b>	20mL Precision thread vial ND18, 1st hydrolytic class, rounded bottom	75.5 x 22.5	Clear	20.6	18	1500	800	CTC PAL (Varian, Gerstel, Atas, Shimadzu, Agilent)	100
<b>12951221</b>	20mL Precision thread vial ND18, 1st hydrolytic class, rounded bottom	75.5 x 22.5	Amber	20.6	18	1500	800	CTC PAL (Varian, Gerstel, Atas, Shimadzu, Agilent)	100

## Other headspace crimp neck vials ND20 fisherbrand and screw neck vial ND18



Cat. No	Description	Dimensions, mm	Glass Type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res. Vol. (μL)	Pack qty
<b>1 11530535</b>	50mL Crimp neck vial, 1st hydrolytic class	101 x 31	Clear	58	50	3080	1500	100
<b>2 11560535</b>	100mL Crimp neck vial, 3rd hydrolytic class	94.5 x 51.6	Clear	118.8	100	10000	6000	88
<b>3 12990951</b>	20mL Head-space vial, 1st hydrolytic class, rounded bottom, with screw thread ND18 Perkin Elmer	75.5 x 23	Clear	21.2	20	1500	800	100

## Aluminium crimp caps and liners ND20

Our range of aluminium crimp caps is featured below, all of which can be used with a broad variety of different liners.



### Crimp caps with butyl seals ND20, non-laminated

- Temperature resistant from -40°C up to +120°C
- N.B. Liners do not possess a PTFE lamination so only suitable for non-critical analyses
- Budget product



Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
<b>1</b> 12991231	Aluminium cap, plain, 10mm centre hole	Chloro-butyl, dark grey	55° Shore A	3.0	100
<b>2</b> 12901241	Headspace cap, clear lacquered				100
<b>3</b> 10492435	Centre tear-off cap, clear lacquered				100
<b>4</b> 12950971	Complete tear-off cap, clear lacquered				100
<b>5</b> 11570505	Magnetic cap, gold, 5mm centre hole				100
<b>6</b> 11510515	Magnetic cap, gold, 8mm centre hole				100

### Crimp caps with Pharma-fix seals ND20, partially laminated

- Special moulded butyl/PTFE liner that is only laminated where the liner is in direct contact with the sample. On the periphery, the unlaminated elastic butyl achieves a very tight seal with the vial top
- Temperature resistant from -40°C up to +120°C
- Achieves a tighter seal than completely laminated butyl/PTFE liners (see page 58)



Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
<b>1</b> 10500633	Aluminium cap, plain, 10mm centre hole	Pharma-fix-septa, bromo-butyl/PTFE	50° Shore A	3.0	100
<b>2</b> 10090772	Headspace cap, clear lacquered				100
<b>3</b> 12900971	Centre tear-off cap, clear lacquered				100
<b>4</b> 12910971	Complete tear-off cap, clear lacquered				100
<b>5</b> 11560505	Magnetic cap, gold, 5mm centre hole				100
<b>6</b> 10294892	Magnetic cap, gold, 8mm centre hole				100

### Crimp caps with butyl/PTFE seals ND20, laminated

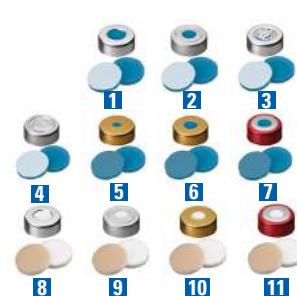
- Temperature resistant from -40°C up to +120°C
- Completely laminated with PTFE



Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
<b>1</b> 10112372	Aluminium cap, plain, 10mm centre hole	Bromo-butyl/PTFE, grey	50° Shore A	3.0	100
<b>2</b> 12921241	Headspace cap, clear lacquered				100
<b>3</b> 12930971	Centre tear-off cap, clear lacquered				100
<b>4</b> 12920971	Complete tear-off cap, clear lacquered				100
<b>5</b> 11550505	Magnetic cap, gold, 5mm centre hole				100
<b>6</b> 11520515	Magnetic cap, gold, 8mm centre hole				100
<b>7</b> 12970981	Magnetic bimetal cap, red, 8mm centre hole				100

### Crimp caps with silicone/PTFE seals ND20, fully laminated

- Temperature resistant from -60°C up to +200°C
- Clean/UltraClean liners for sensitive analyses
- White/beige liner corresponds to competitor HT liner
- Completely laminated with PTFE
- Soft liners for easy penetration



Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
<b>1</b> 10739834	Aluminium cap, plain, 10mm centre hole	Silicone blue transparent/PTFE white UltraClean	45° Shore A	3.0	100
<b>2</b> 12951241	Headspace cap, clear lacquered				100
<b>3</b> 12960971	Centre tear-off cap, clear lacquered				100
<b>4</b> 12970971	Complete tear-off cap, clear lacquered				100
<b>5</b> 12920981	Magnetic cap, gold, 5mm centre hole	Silicone blue transparent/PTFE transparent UltraClean	45° Shore A	3.0	100
<b>6</b> 10172272	Magnetic cap, gold, 8mm centre hole				100
<b>7</b> 10617445	Magnetic bimetal cap, red, 8mm centre hole				100
<b>8</b> 10316012	Aluminium cap, plain, 10mm centre hole				100
<b>9</b> 10633113	Headspace cap, clear lacquered	Silicone white/PTFE beige (HT Quality)	45° Shore A	3.2	100
<b>10</b> 11540525	Magnetic cap, gold, 8mm centre hole				100
<b>11</b> 11368641	Magnetic bimetal cap, red, 8mm centre hole				100

## Crimp caps with silicone/aluminium foil seals ND20

fisherbrand

- Temperature resistant from -60°C up to +220°C
- Often used on PerkinElmer instruments
- Completely laminated with aluminium foil silver



Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
<b>1</b> 10623113	Aluminium cap, plain, 10mm centre hole	Silicone white/aluminium foil silver	50° Shore A	3.0	100
<b>2</b> 10102182	Headspace cap, clear lacquered	Silicone white/aluminium foil silver	50° Shore A	3.0	100
<b>3</b> 12930981	Magnetic cap, gold, 5mm centre hole	Silicone white/aluminium foil silver	50° Shore A	3.0	100

## Crimp cap, magnetic, with seal for SPME vial (Cat. No 10510323) for CTC

fisherbrand

- Special silicone/PTFE liner with a thin 0.05mm PTFE film instead of the standard 0.13mm PTFE lamination, allowing even easier needle penetration
- Should only be used in combination with the SPME vial (Cat. No 10510323) which has a much thicker crimp neck than all standard headspace vials



Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
<b>11540515</b>	Magnetic cap, gold, 8mm centre hole	Silicone white/PTFE blue	55° Shore A	1.5	100

## Septa/stoppers 20mm only, for vials ND20

fisherbrand



Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
<b>1</b> 10255044	Moulded septa butyl, dark grey	55° Shore A	3.0	1000
<b>2</b> 11825020	Moulded septa butyl/PTFE, grey	50° Shore A	3.0	1000
<b>3</b> 11815020	Pharma-fix-septa (butyl/PTFE)	50° Shore A	3.0	1000
<b>4</b> 10602245	Silicone blue transparent/PTFE white	45° Shore A	3.0	1000
<b>5</b> 12666505	Silicone blue transparent/PTFE transparent	45° Shore A	3.0	1000
<b>6</b> 11805030	Silicone white/PTFE beige (HT quality)	45° Shore A	3.2	1000
<b>7</b> 11895020	Silicone white/aluminium foil silver	50° Shore A	3.0	1000
<b>8</b> 11500555	20mm Butyl injection stopper, grey			100

## Crimp caps magnetic universal screw and seals ND18

fisherbrand

- For precision thread vials 11506114, 11526114, 12941221, 12951221 for CTC, Agilent, Shimadzu, Varian, Gerstel and PerkinElmer instruments
- 12971221 and 12981221 have been tested and approved by CTC
- Closed top versions for sample storage
- Precision thread vials and closures now also used on PerkinElmer TurboMatrix 16, 40 and 110 autosamplers constructed after 01.09.2006
- 10607445\* especially suitable for SPME due to the pre-cut septa



Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
<b>1</b> 12961221	Magnetic screw cap silver, 8mm centre hole	Silicone white/PTFE red	45° Shore A	1.3	100
<b>2</b> 12971221	Magnetic screw cap silver, 8mm centre hole	Silicone blue transparent/PTFE white	45° Shore A	1.3	100
<b>3</b> 12981221	Magnetic screw cap silver, 8mm centre hole	Silicone white/PTFE blue	55° Shore A	1.5	100
<b>4</b> 10729264	Magnetic screw cap silver, 8mm centre hole	Butyl red/PTFE grey	55° Shore A	1.6	100
<b>5</b> 12980951	Magnetic screw cap silver, 8mm centre hole	Silicone white/aluminium foil silver	50° Shore A	1.3	100
<b>6</b> 10607445	Magnetic screw cap silver, 8mm centre hole (SPME)	Silicone white/PTFE red, pre-cut star (*)	55° Shore A	1.5	100
<b>7</b> 12901231	Magnetic screw cap silver, closed top	Silicone white/PTFE red	45° Shore A	1.3	100
<b>8</b> 12911231	Magnetic screw cap silver, closed top	Butyl red/PTFE grey	55° Shore A	1.6	100

## Polypropylene screw cap seal ND18

fisherbrand

- Especially for headspace vial Cat. No 12990951
- These screw seals are not suitable for the following vials: 11506114, 12941221, 11526114 and 12951221



Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
<b>1</b> 11576114	Polypropylene screw cap black, 12mm centre hole	Butyl red/PTFE grey	55° Shore A	1.6	100
<b>2</b> 10590623	Polypropylene screw cap black, closed top	Butyl red/PTFE grey	55° Shore A	1.6	100
<b>3</b> 12900961	Polypropylene screw cap black, 12mm centre hole	Butyl red/PTFE grey	55° Shore A	2.0	100
<b>2</b> 12910961	Polypropylene screw cap black, closed top	Butyl red/PTFE grey	55° Shore A	2.0	100
<b>4</b> 12940961	Polypropylene screw cap black, 12mm centre hole	Silicone white/PTFE red	55° Shore A	1.5	100
<b>5</b> 12930961	Polypropylene screw cap black, closed top	Silicone white/PTFE red	55° Shore A	1.5	100
<b>6</b> 10142752	Polypropylene screw cap black, 12mm centre hole	Silicone blue transparent/PTFE white	45° Shore A	1.7	100

## SCREW NECK VIALS ND24 (EPA)

The vials are preferentially used on autosampler models from the following manufacturers: Agilent, Dionex, Shimadzu, Tekmar, Thermo Scientific and Varian

- All types of EPA vials can be delivered against a small surcharge with a certificate of cleanliness that might be needed especially for TOC analysis
- EPA Vials can be obtained with any type of screw seal ND24 already screwed on
- Broad range of EPA vials in clear and amber glass
- Volumes of 20mL, 30mL, 40mL and 60mL available

### Screw neck vials ND24 (EPA)

*fisherbrand*



Cat. No	Description	Dimensions, mm	Glass type	TFVol. (mL)	UsVol. (mL)	MWVol. (μL)	Res.Vol (μL)	Pack qty
<b>10000782</b>	20mL EPA screw neck vial, 1st hydrolytic class	57 x 27.5	Clear	23.3	20	1	0.5	100
<b>10458082</b>	20mL EPA screw neck vial, 1st hydrolytic class	57 x 27.5	Amber	23.3	20	1	0.5	100
<b>10758874</b>	30mL EPA screw neck vial, 1st hydrolytic class	72.5 x 27.5	Clear	31.1	27.4	1.4	0.7	100
<b>11510585</b>	30mL EPA screw neck vial, 1st hydrolytic class	72.5 x 27.5	Amber	31.1	27.4	1.4	0.7	100
<b>10465982</b>	40mL EPA screw neck vial, 1st hydrolytic class	95 x 27.5	Clear	42.9	40	1.4	0.7	100
<b>11530585</b>	40mL EPA screw neck vial, 1st hydrolytic class	95 x 27.5	Amber	42.9	40	1.4	0.7	100
<b>11540585</b>	60mL EPA screw neck vial, 1st hydrolytic class	140 x 27.5	Clear	64.4	60	1.4	0.7	100
<b>11550585</b>	60mL EPA screw neck vial, 1st hydrolytic class	140 x 27.5	Amber	64.4	60	1.4	0.7	100

### UltraBond seals ND24

*fisherbrand*

- With UltraBond, cap and liner form a bonded and inseparable unit, so that the liner cannot detach



Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
<b>10729454</b>	PP screw cap white, centre hole	Silicone natural/PTFE beige (EPA-Quality)	45° Shore A	3.2	100
<b>10132322</b>	PP screw cap white, closed top	Silicone natural/PTFE beige (EPA-Quality)	45° Shore A	3.2	100

### Septa 22mm for vial seals ND24

*fisherbrand*

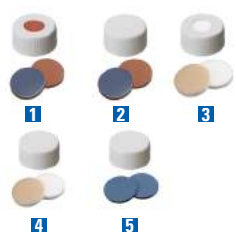


Cat. No	Septa material	Durometer	Thickness, mm	Pack qty
<b>11835070</b>	Butyl red/PTFE grey	55° Shore A	1.6	1000
<b>11845070</b>	Butyl red/PTFE grey	55° Shore A	2.5	1000
<b>11787617</b>	Silicone white/PTFE beige	45° Shore A	3.2 (EPA-Quality)	1000
<b>11815070</b>	Silicone white/PTFE blue	55° Shore A	1.5, cross-slitted	1000
<b>12950991</b>	Silicone white/aluminium foil silver	50° Shore A	3.0	1000

## Polypropylene screw cap and UltraBond seals, ND24

*fisherbrand*

- Special moulded butyl/PTFE liner that is only laminated where the liner is in direct contact with the sample. On the periphery, the unlaminated elastic butyl achieves a very tight seal with the vial top
- Temperature resistant from -40°C up to +120°C
- Achieves a tighter seal than completely laminated butyl/PTFE liners (see page 58)



### Polypropylene screw caps ND24

*fisherbrand*



Cat. No	Description	Pack qty
<b>10590053</b>	Polypropylene screw cap, white, 12.5mm centre hole	100
<b>10759644</b>	Polypropylene screw cap, white, closed top	100

### Polypropylene screw cap seals ND24

Cat. No	Description	Septa material	Durometer	Thickness, mm	Pack qty
<b>11530595</b>	PP screw cap white, 12.5mm centre hole	Butyl red/PTFE grey	55° Shore A	2.5	100
<b>10090962</b>	PP screw cap white, closed top	Butyl red/PTFE grey	55° Shore A	2.5	100
<b>10541013</b>	PP screw cap white, 12.5mm centre hole	Silicone white/PTFE beige (EPA-Quality)	45° Shore A	3.2	100
<b>10132422</b>	PP screw cap white, closed top	Silicone white/PTFE beige (EPA-Quality)	45° Shore A	3.2	100
<b>12921001</b>	PP screw cap white, closed top	PTFE/EPDM/PTFE	65° Shore A	2.0	100

TFVol. = Total Volume/Filling Volume (mL)    MWVol. = Minimum Working Volume (μL)

UsVol. = Usable Volume (mL)    Res. Vol. = Residual Volume (μL)



## Specially assembled EPA vials with screw seals ND24

fisherbrand

## Stainless steel cleanroom crimping and decapping tools

fisherbrand

Cat. No	Description	Description assembled seal	Durometer	Thick ness, mm	Pack qty
12901001	20mL Screw neck vial, 57 x 27.5mm, clear glass, 1st hydrolytic class, EPA (vial Cat. No.10000782)	UltraBond seal, white, centre hole, silicone natural/PTFE beige (EPA-Quality) (seal Cat. No.10729454)	45° Shore A	3.2	100
12970991	40mL Screw neck vial, 95 x 27.5mm, clear glass, 1st hydrolytic class, EPA (vial Cat. No.10465982)	PP screw cap, white, centre hole, silicone white/PTFE beige (seal Cat.No.10541013)	45° Shore A	3.2	100
11510595	40mL Screw neck vial, 95 x 27.5mm, clear glass, 1st hydrolytic class, EPA (vial Cat. No.10465982)	UltraBond seal, white, centre hole, silicone natural/PTFE beige (EPA-Quality) (seal Cat. No.10729454)	45° Shore A	3.2	100
11500595	40mL Screw neck vial, 95 x 27.5mm, clear glass, 1st hydrolytic class, EPA (vial Cat. No.10465982)	UltraBond seal, white, closed top, silicone natural/PTFE beige (EPA-Quality) (seal Cat. No.10132322)	45° Shore A	3.2	100
12911251	40mL Screw neck vial, 95 x 27.5mm, amber glass, 1st hydrolytic class, EPA (vial Cat. No.11530585)	PP screw cap, white, centre hole, silicone white/PTFE beige (seal Cat.No.10541013)	45° Shore A	3.2	100
12980991	60mL Screw neck vial, 140 x 27.5mm, clear glass, 1st hydrolytic class, EPA (vial Cat. No.11530585)	PP screw cap, white, centre hole, silicone white/PTFE beige (seal Cat.No.10541013)	45° Shore A	3.2	100
12990991	60mL Screw neck vial, 140 x 27.5mm, clear glass, 1st hydrolytic class, EPA (vial Cat. No.11530585)	UltraBond seal, white, centre hole, silicone natural/PTFE beige (seal Cat.No.10729454)	45° Shore A	3.2	100

- The crimping/decapping mechanism is corrosion and heat resistant while the stainless steel construction removes the need for any protective coating on the handle or crimp head
- Can withstand repeated sterilisation for cleanroom use without the risk of damaging the tool
- Available in 11mm, 13mm and 20mm sizes
- Crimping tools have adjustable crimping pressure and height to offer optimal crimping results on varying vial styles
- As no lubricant is used and the handles are from non-lacquered stainless steel, the crimper can be used in cleanroom environments without limitation



## Manual crimping tools, cleanroom stainless steel

fisherbrand

Cat. No	Description	Pack qty
11737746	11mm crimper made of stainless steel, sterilisable, for cleanroom applications	1
11747746	13mm crimper made of stainless steel, sterilisable, for cleanroom applications	1
11757746	20mm crimper made of stainless steel, sterilisable, for cleanroom applications	1

## Manual crimping tools

fisherbrand

- Crimping tools provide a reproducible, secure vial closure
- Easy and convenient handling
- High quality construction for durability and long life
- Painted, plated and coated for maximum corrosion resistance
- Textured handle surface provides an assured grip



Cat. No	Description	Pack qty
11707567	Crimper for 8mm aluminium caps	1
11757577	Crimper for 11mm aluminium caps	1
11748276	Crimper for 13mm aluminium caps	1
11550525	Crimper for 20mm aluminium caps	1
11839440	Crimper for 28mm aluminium caps	1
11815863	Crimper for 32mm aluminium caps	1
11777597	Crimper for 13mm flip top/flip off seals	1
11844970	Crimper for 13mm flip tear up seals	1
11801613	Crimper for 20mm flip top/flip off seals	1
11875050	Crimper for 20mm flip tear up seals	1
11829440	Crimper for 28mm flip top/flip off seals	1

## Manual decapping tools, cleanroom stainless steel

fisherbrand

Cat. No	Description	Pack qty
11845722	11mm decapper made of stainless steel, sterilisable, for cleanroom applications	1
11586034	13mm decapper made of stainless steel, sterilisable, for cleanroom applications	1
11520535	20mm decapper made of stainless steel, sterilisable, for cleanroom applications	1



## Manual decapping tools

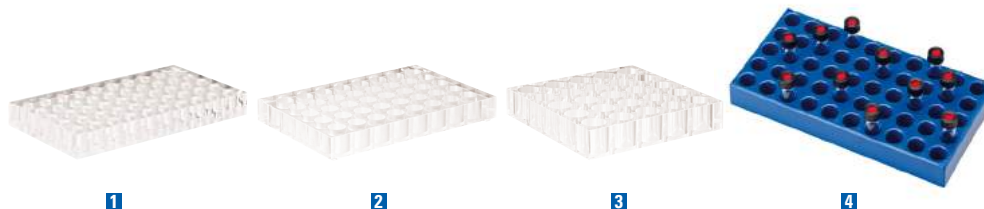
fisherbrand

Cat. No	Description	Pack qty
11758276	Decapper for 8mm aluminium caps	1
11768276	Decapper for 11mm aluminium caps	1
11787597	Decapper for 13mm aluminium caps	1
11500535	Decapper for 20mm aluminium caps	1
11849440	Decapper for 28mm aluminium caps	1
10621210	Decapper for 32mm aluminium caps	1

## Vial racks and storage boxes

fisherbrand

- Easy handling and transportation of sample vials
- Acrylic racks allow clear visibility of contents
- Stable standing position because of solid construction
- Silicone base provides stability when stacked
- Racks for 8mm respectively 11mm vials can even hold conically shaped sample vials

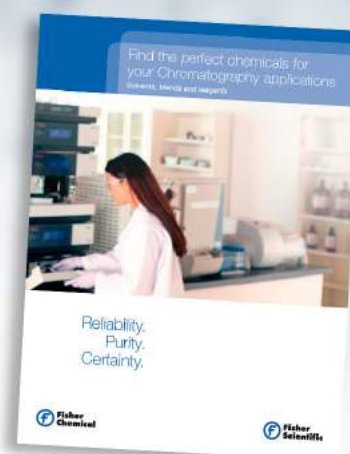


Cat. No	Description	Dimensions, mm	Compatible with vial Cat. Nos:	Pack qty
<b>1 11708256</b>	Vial rack, acrylic, 50 placements with a diameter of 8.5/3mm	173 x 95 x 20	11541364, 11561364, 11571364, 11521374, 11531374, 11541374, 11551374, 11561374, 10224852, 10306062, 10145424, 10506075, 10672733	1
<b>1 11767597</b>	Vial rack, acrylic, 50 placements with a diameter of 12mm	173 x 95 x 20	11511474, 10521593, 11531474, 11565874, 10560053, 10326042, 11595874, 11505884, 11515884, 11525884, 11525884, 11545884, 10162512, 11575884, 10080952, 11505894, 11515894, 11525894, 11535894, 11545894, 11555894, 11565894, 11575894, 11585894, 11595894, 10678005, 10145714, 12951011, 11535914, 11545914, 12672465, 11555914, 11565914, 11575914, 11585914, 11515924, 11525924, 11565964, 11575964, 11585964, 11595964, 11505974, 10509482, 11545974, 10705203	1
<b>2 11728256</b>	Vial rack, acrylic, 40 placements with a diameter of 15.1mm	175.8 x 115.5 x 20	10571013, 11556044, 11576044, 11586044, 15582330, 11516074, 10455982	1
<b>3 11738256</b>	Vial rack, acrylic, 25 placements with a diameter of 24mm	160 x 160 x 30	12990951, 10495982, 10749644, 11506114, 12941221, 11526114, 12951221, 10080822, 10663303, 10152512, 10680843, 12971231, 10192652, 11520545, 10070952, 10510323, 12981241, 10681033, 12910991, 10195012	1
<b>4 11767746</b>	Vial rack, PP, for 1.5mL vials, 50 placements, blue, stackable	200 x 105 x 17	11511474, 10521593, 11531474, 11565874, 10560053, 10326042, 11595874, 11505884, 11515884, 11525884, 11525884, 11545884, 10162512, 11575884, 10080952, 11505894, 11515894, 11525894, 11535894, 11545894, 11555894, 11565894, 11575894, 11585894, 11595894, 10678005, 10145714, 12951011, 11535914, 11545914, 12672465, 11555914, 11565914, 11575914, 11585914, 11515924, 11525924, 11565964, 11575964, 11585964, 11595964, 11505974, 10509482, 11545974, 10705203	1
<b>4 12672495</b>	Vial rack, PP, for 4mL vials, 50 placements, blue, stackable	230 x 117 x 28	10571013, 11556044, 11576044, 11586044, 15582330, 11516074, 10455982	1

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The Fisher Chemical range of solvents meets the challenges of chromatography from HPLC to UHPLC-MS applications.

We can supply the solvents, blends and reagents you need, in the grades, sizes and packaging that meet your requirements.



**See Fisher Chemical range of products on page 125 to 132**



## FISHERBRAND SPOTLIGHT

Identify the appropriate solvent grade for your particular chromatography application from the Fisher Chemical range



### FISHER CHEMICAL SOLVENT SELECTION GUIDE

Chromatography Application	Instrument and Detector Type	Fisher Chemical Solvent Grade
UHPLC-MS	UHPLC coupled with mass detector	Optima UHPLC-MS
High HPLC-MS	LC and UHPLC coupled with mass detector	Optima LC/MS
HPLC-MS	LC coupled with mass detector	LC/MS grade
UHPLC	UHPLC coupled with UV detector	UHPLC gradient grade
High HPLC gradient	LC gradient coupled with UV detector	HPLC advanced grade
HPLC gradient	LC gradient coupled with UV detector	HPLC gradient grade
HPLC	LC coupled with UV detector	HPLC grade

To ensure suitability for specific detectors (e.g. ECD & fluorescence) several other application specific solvent grades are also available.

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Take advantage of our long-standing expertise and experience in distillation, processing, testing and packaging high purity solvents to make Fisher Chemical your brand of choice for your chromatography applications.



**Water, HPLC for gradient analysis**  
Cat. No 10367171

**Methanol for LC-MS Optima**  
Cat. No 10031094

**Acetonitrile for LC-MS Optima**  
Cat. No 10001334

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## CRYOGENICS

Fisherbrand offers a range of cryogenic consumables including vials and storage boxes as well as larger items of equipment such as ultra-low temperature freezers. All of these products are designed to make the short or long term cold storage of your precious samples easier, more retrievable, safer and secure.

### Cryoboxes, polypropylene, 81 place, colour-coded

- Store 1.5/2.0mL microtubes or cryogenic vials in these polypropylene storage boxes
- Easy open, friction-fit lids
- Rack (l x w x h) 130mm x 130mm x 47mm
- Autoclavable

*fisherbrand*



Cat. No	Colour	Pack qty
10273222	Blue	5
10070182	Pink	5
10325002	Yellow	5
10385042	Orange	5
10500203	Natural	5
10050182	Green	5
10243272	Assorted colours (blue, green, pink, yellow and orange)	5

### Cryoboxes, polypropylene, 81 place, with grid inserts

*fisherbrand*

- Autoclavable, temperature resistant from -90°C to +121°C
- High quality polypropylene
- 81 places, 9 x 9 grid, numerically coded
- Robust hinge with safe snap-on lid
- For sample storage and transportation



Cat. No	Colour	Accommodates	Pack qty
Dimensions (l x w x h), 133mm x 133mm x 52mm, 81 place, 9 x 9 fixed grid			
11856893	Natural	81 x 1.2mL to 2.0mL vials	5
11826903	Yellow	81 x 1.2mL to 2.0mL vials	5
11836903	Red	81 x 1.2mL to 2.0mL vials	5
11856903	Blue	81 x 1.2mL to 2.0mL vials	5
11866903	Natural	81 x 3.0mL to 5.0mL vials	5
11876903	Yellow	81 x 3.0mL to 5.0mL vials	5
11886903	Red	81 x 3.0mL to 5.0mL vials	5
11896903	Green	81 x 3.0mL to 5.0mL vials	5
11806913	Blue	81 x 3.0mL to 5.0mL vials	5

### Cryoboxes, microcentrifuge, polypropylene, 100 place

*fisherbrand*

- Durable 100 well storage racks feature three point hinges and clasp for secure lid closure
- Hold 1.5mL to 2mL microtubes and cryovials
- User friendly racks feature moulded grid lines on the lid, imprinted coordinates on the bottom of the base and on the box
- Racks measure 141mm x 151mm x 57mm
- Stackable
- Autoclavable



Cat. No	Description	Pack qty
11700344	Assorted colours (blue, green, purple, yellow and orange)	5

### Cryoboxes, polycarbonate, Arctic Squares™

*fisherbrand*

- Boxes will safely store vials from -196°C to +121°C in mechanical freezers as well as liquid nitrogen
- The forward sloped base, high contrast and printed indexing on the transparent lid enable quick visual identification
- All boxes have vent and draining holes
- Autoclavable at 121°C



Cat. No	Description	Colour	Dimensions (l x d x h), mm	Pack qty
11938084	5 x 5 array for 1.2mL/2mL vials	Red	76 x 76 x 53	8
11394055	9 x 9 array tall boxes for 3mL/5mL vials	Purple	133 x 133 x 96	5
11998004	9 x 9 array for 1.2mL/2mL vials, includes picking tool	Assorted (red, purple, blue and green)	133 x 133 x 53	4
11978004	10 x 10 array for 1.2mL/2mL vials, includes picking tool	Blue	133 x 133 x 53	4

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## Cryoboxes, polypropylene, flat-pack corrugated

fisherbrand

- Cryoboxes are supplied flat-pack eliminating the inconvenience of stacking and reduces the amount of space needed for storage
- Boxes fit in standard freezer racks
- Easy to assemble
- Dividers included with the boxes
- Store down to temperatures of -80°C
- More durable than cardboard boxes as they are not susceptible to moisture
- Significantly reduces the chance of mould



Cat. No	Colour	Well count	Well diameter, mm	Accommodates	Dimensions (l x w x h), mm	Pack qty
Corrugated polypropylene for 0.2/0.5/2.0/5mL tubes						
15316528	Natural	144	7.9	0.2mL tubes	133 x 130 x 30	10
15326528	Blue	144	7.9	0.2mL tubes	133 x 130 x 30	10
15336528	Red	144	7.9	0.2mL tubes	133 x 130 x 30	10
15346528	Purple	144	7.9	0.2mL tubes	133 x 130 x 30	10
15356528	Natural	81	12	0.5mL tubes	133 x 130 x 42	10
15366528	Blue	81	12	0.5mL tubes	133 x 130 x 42	10
15376528	Red	81	12	0.5mL tubes	133 x 130 x 42	10
15386528	Purple	81	12	0.5mL tubes	133 x 130 x 42	10
15226996	Natural	81	12	1.5/2.0mL tubes	133 x 133 x 51	10
15396528	Blue	81	12	1.5/2.0mL tubes	133 x 133 x 51	10
15306538	Red	81	12	1.5/2.0mL tubes	133 x 133 x 51	10
15316538	Purple	81	12	1.5/2.0mL tubes	133 x 133 x 51	10
15326538	Natural	25	22.6	5mL tubes	133 x 133 x 75	10
15336538	Blue	25	22.6	5mL tubes	133 x 133 x 75	10
15346538	Red	25	22.6	5mL tubes	133 x 133 x 75	10
15356538	Purple	25	22.6	5mL tubes	133 x 133 x 75	10
Corrugated polypropylene for 15mL and 50mL tubes						
15366538	Natural	36	19.8	15mL tubes	145 x 147 x 120	10
15376538	Blue	36	19.8	15mL tubes	145 x 147 x 120	10
15386538	Red	36	19.8	15mL tubes	145 x 147 x 120	10
15396538	Purple	36	19.8	15mL tubes	145 x 147 x 120	10
15306548	Natural	16	31.6	50mL tubes	145 x 147 x 120	10
15316548	Blue	16	31.6	50mL tubes	145 x 147 x 120	10
15326548	Red	16	31.6	50mL tubes	145 x 147 x 120	10

## Cryoboxes, polystyrene

fisherbrand

- Two-piece racks are constructed of expanded polystyrene (EPS) foam
- Lightweight microtube racks are ideal for long term studies or tube storage
- Extra spacing between wells allows for easy gripping with fingertips
- Racks stack securely with nesting features on lid and base



Cat. No	Colour	Well count	Accommodates	Dimensions (l x w x h), mm	Pack qty
11774016	White	100	1.5/2.0mL tubes	336 x 95 x 73	10
11948084	White	50	1.5/2.0mL tubes	210 x 110 x 71	10

## Cryogenic storage racks, expanding

fisherbrand

- The opening and closing mechanism allows these racks to expand, creating room for sample manipulation and easy retrieval
- When done, simply collapse the rack back to its compact form and it's ready for the freezer
- Reduces sampling handling time
- Helps reduce cross-contamination
- Temperature range -80 to 121°C fitting into standard 53mm freezer racking



Cat. No	Description	Pack qty
15162855	Expanding rack, 64 well, for 1.5 to 2mL microtubes and 2mL cryovials	1
15310380	Expanding rack Work2Store micro, reversible 64 x 0.5mL and 96 x 0.2mL microtubes	1

## Cryogenic storage boxes, TracRack™

fisherbrand

- Removable segments allows users to easily open, identify and extricate only those segments containing the samples needed
- Eliminates the need of taking an entire rack of samples out of cold storage which could reduce the risk of potential cross-contamination
- Eight individual segments per box
- Box is made from a thin film PP that can be stored down to -196°C
- Moisture resistant, significantly reducing the chance of mould



Cat. No	Description	Pack qty
15346548	TracRack™ cryostorage box, 64 well, for 1.5/2.0mL tubes	1
15356548	TracRack™ micro reversible cryostorage box, for up to 64 x 0.5mL and/or 96 x 0.2mL tubes	1

## Tube rack and box, polypropylene, adjustable

fisherbrand

- Robust, rigid storage box with removable inserts to hold either 15mL or 50mL tubes
- Deep grid wells securely hold tubes upright
- With keyed lid and imprinted grid to locate tubes easily
- Can be used without inserts
- Tubes can be seen through transparent lid and box sides
- Fill with ice and use as a temporary workstation

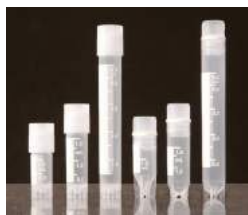


Cat. No	Description	Dimensions (l x w x h), mm	Pack qty
11700634	Interchangeable modules hold 16 x 15mL or 9 x 50mL tubes	132 x 132 x 129	5



## Vials, cryogenic storage, external and internal thread *fisherbrand*

- A choice of externally threaded PP vials with HDPE closures for aseptic technique, or internally threaded PP vials featuring polypropylene closures with silicone gasket for tight seal
- Sterile, not autoclavable
- Self-standing
- Choice of bottom shape
- Noncytotoxic, nonpyrogenic
- Large white writing area
- Graduations in 0.5mL increments
- Suitable for storage of biological materials in mechanical freezers or in the vapour phase of liquid nitrogen
- Vials are for research use only, not for *in vitro* diagnosis or parenterals



Cat. No	Base shape	Volume, mL	Closure material	Thread style	Pack qty
<b>11777939</b>	Conical	1.2	HDPE	External	100
<b>11787939</b>	Conical	2	HDPE	External	100
<b>11797939</b>	Conical	5	HDPE	External	50
<b>11311675</b>	Conical	1.2	Polypropylene	Internal	1000
<b>11321675</b>	Round	2	Polypropylene	Internal	1000
<b>11331675</b>	Round	5	Polypropylene	Internal	1000

## Isotemp™ ultra-low temperature chest freezers *fisherbrand*

These Isotemp™ chest freezers feature improved compressor technology, user-friendly control panels and standard RS-232 and 4-20mA outputs for easy connection of independent monitoring devices. The two-stage refrigeration system has a compressor which allows for quiet and reliable performance. The control panel allows for user defined alarms and setpoints and feature audible and visual alarms.



- State-of-the-art LED control panel
- Intuitive settings controls temperature, alarm setpoints, audible/ visual alarm and 12-character message system
- Temperature range: -86° to -50°C
- CFC-free refrigerants
- Steel cabinet with corrosion-resistant coating and a minimum 12.7cm CFC-free, foamed-in-place urethane insulation layer
- Optional CO<sub>2</sub> and LN<sub>2</sub> safety back-up systems provide additional product protection in the event of a power or mechanical failure
- For long-term storage of biological and chemical samples
- Warranty: Two year

Cat. No	Description	Dimensions, int. (d x w x h), mm	Dimensions, ext. (d x w x h), mm	Pack qty
<b>12619265</b>	Chest freezer, ULT -86°C Isotemp 90L	470 x 470 x 419	759 x 724 x 1113	1
<b>12696025</b>	Chest freezer, ULT -86°C Isotemp 360L	470 x 1080 x 711	848 x 1829 x 1029	1
<b>12649265</b>	Chest freezer, ULT -86°C Isotemp 566L	470 x 1689 x 711	848 x 2438 x 1029	1

## Isotemp™ ultra-low temperature upright freezers *fisherbrand*

- Programmable microprocessor control for superior performance
- Temperature range: -86° to -50°C
- Easy-to-read door-mounted LED with touchpad data entry
- Continuously monitors sensors to ensure proper performance
- Key-operated main power and alarm switch
- Control setpoint in 1°C increments
- Temperature deviation or power failure triggers audible/visual alarms
- 'Clean Filter', 'Alarm Battery Low' and 'Voltage' indicators
- CFC-free refrigerants
- Steel cabinet with corrosion-resistant coating and a minimum 12.7cm CFC-free, foamed-in-place urethane insulation layer
- Outer door gasket seals with five points of sealing contact
- Inner doors are high-impact ABS plastic with recessed handles
- Stainless steel interior shelves
- Heavy-duty 5cm locking, tandem wheel casters
- Factory-installed options also available
- Warranty: Two year



Cat. No	Description	Dimensions, int. (d x w x h), mm	Dimensions, ext. (d x w x h), mm	Pack qty
<b>12689265</b>	Upright freezer ULT -86°C Isotemp 368L	490 x 584 x 1308	836 x 846 x 1979	1
<b>12656035</b>	Upright freezer ULT -86°C Isotemp 490L	642 x 584 x 1308	940 x 846 x 1979	1
<b>12609275</b>	Upright freezer ULT -86°C Isotemp 650L	642 x 777 x 1308	94 x 1036 x 1979	1
<b>12676035</b>	Upright freezer ULT -86°C Isotemp 793L	685 x 930 x 1308	940 x 1189 x 1979	1

You may also be interested in our range of **Traceable™ Thermometers and Traceable™ Datalogging Thermometers** on pages 73 to 78



## ELECTROCHEMISTRY

This section describes our comprehensive range of Fisherbrand benchtop and portable pH meters, conductivity testers and accessories. These have been specifically designed for accurate and reproducible electrochemical measurement either in the lab or out in the field.

## accumet™ AE150 benchtop pH meters

fisherbrand

All the essential functions needed for routine measurements without complicated features and processes at a budget-friendly price.

- One to five point pH calibration
- Automatic buffer recognition with selection of two pH buffer sets
- pH slope and offset display
- Automatic or manual temperature compensation
- 'Ready' icon to indicate measurement stability
- Electrode condition icon to indicate status
- 100 dataset storage with non-volatile memory
- pH range 0.00 to 14.00 pH
- pH resolution 0.01 pH
- Warranty: Three years (meter only)



Cat. No	Description	Pack qty
15514693	Benchtop pH Meter AE150 meter only, with stand	1
15544693	Benchtop pH Meter AE150 3-in-1 set with 3-in-1 single junction electrode	1
15524693	Benchtop pH Meter AE150 education set with single junction electrode	1
15534693	Benchtop pH Meter AE150 bio set with double junction electrode	1

### Accessories - pH electrodes

Cat. No	Description	Temperature range	Length	Detection range	Pack qty
15563633	Single junction gel pH electrode	0° to 80°C	90mm	1 to 13 pH	1
15593633	Double junction gel pH electrode	0° to 80°C	90mm	1 to 13 pH	1
15503643	pH/ATC gel electrode	0° to 80°C	90mm	1 to 13 pH	1

### Accessories - ATC temperature probes

Cat. No	Description	Pack qty
15573633	ATC electrode	1
15583633	ATC electrode	1

## accumet™ AB200 benchtop pH/conductivity meters

fisherbrand

Provides intuitive, simple operation and high accuracy measurements in a compact, affordable meter. The AB200 pH/conductivity meter combines the benefits of a pH meter and conductivity meter in one easy-to-use, reliable measurement system. The large backlit display offers great visibility in laboratory environments.



- An accurate, affordable, multi-parameter instrument
- Multiple views
- Backlight display
- Date/time for GLP requirements
- User buffer calibration options
- Three position electrode holder
- Stirring capability
- Upgradeable software
- Wall mounting available
- Warranty: Three years (meter only)

Cat. No	Description
12800643	AB200 Meter - Includes meter, electrode arm, RS232 & USB cables, 100/240V power supply, and manual
12810643	AB200 Kit - Includes meter, TRIS compatible pH/ATC electrode (Cat. No 11500194), conductivity/temperature probe (Cat. No 11550164), electrode arm, RS232 & USB cables, 100/240V power supply, and manual

### Conductivity/temperature electrodes for AB200

Cat. No	Sensor type	Body type	Nominal cell constant	Ideal range	Pack qty
11540164	2-Cell	Plastic	0.1	0.5 to 2000µS	1
11530164	2-Cell	Plastic	10	1 to 200mS	1
11560164	4-Cell	Glass	10	1 to 200mS	1
11530084	4-Cell	Plastic	1	10µS to 100mS	1
11540084	4-Cell	Plastic	10	1 to 200mS	1

## accumet™ AB150 benchtop pH meters

fisherbrand

Intuitive, simple operation and high accuracy measurements in a compact, affordable meter. accumet AB150 pH benchtop meters have a large backlit display which offers great visibility in laboratory environments.

- Multiple views with backlight display
- Date/time for GLP requirements
- User buffer calibration options
- Three position electrode holder and stirring capability
- Upgradeable software
- Wall mounting available
- Warranty: Three years (meter only)



Cat. No	Description	Pack qty
12840633	AB150 Meter - Includes meter, electrode arm, RS232 & USB cables, 100/240V power supply, and manual	1
12870633	AB150 Kit - Includes meter, Tris-compatible pH/ATC electrode, electrode arm, RS232 and USB cables, 100/240V power supply, and manual	1
12880633	AB150 BioBasic Kit - Includes meter, TRIS compatible accuTupH pH electrode (Cat. No 11550174), ATC probe (Cat. No 10236064), electrode arm, 110/220V power supply, and manual	1

## accumet™ AB250 benchtop pH/ISE meters

fisherbrand

Intuitive, simple operation and high accuracy in a compact, affordable meter



- Measures pH and ISE ion concentrations
- Compact size conserves valuable bench space
- Large display shows measurement and temperature at all times
- Selectable preferred language for instrument display
- Automatic Temperature Compensation (ATC) in °C or °F
- Graphic display with adjustable backlight
- 500-point memory: log manually or at intervals
- Easy-to-understand prompts
- Easily view calibration data
- 100 to 240V power supply includes multi-plugs for use around the globe
- Warranty: Three years (meter only)

Cat. No	Description	Pack qty
12850633	AB250 Meter - Includes meter, electrode arm, RS-232 & USB cables, 100/240V power supply, and manual	1
12860633	AB250 Kit - Includes meter, TRIS compatible pH/ATC electrode (Cat. No 11500194), electrode arm, RS-232 & USB cables, 100/240V power supply, and manual	1

## Replacement parts and accessories for AB series meters

- Compatible with Fisherbrand accumet™ meters
- Can be used in a variety of applications

fisherbrand



Cat. No	Description	Pack qty
<b>12840653</b>	accumet™ stirring probe	1
<b>12860653</b>	Replacement paddle with stirring rod for accumet™ stirring probe	1
<b>11550174</b>	TRIS compatible accuTupH combination electrode, double-junction, glass body, refillable	1
<b>11500194</b>	TRIS compatible pH/ATC combination electrode, double-junction, plastic body, refillable	1
<b>10236064</b>	ATC probe for AB series benchtop meters	1

## accumet™ AET15 portable pH tester fisherbrand

The AET15 pH tester has a large screen dual LCD display for enhanced readability, provides comprehensive meter information

- pH range: 1.0 to 15.0
- Waterproof, dustproof housing is IP67 rated, maintains the integrity of your tester even in harsh conditions
- Floats if dropped in water
- User-replaceable sensor
- Push-button calibration with auto-buffer recognition - quick, easy calibration with no calibration mistakes
- Automatic Temperature Compensation (ATC) - ensures optimum accuracy under fluctuating temperatures
- Temperature display readout simultaneously
- Auto power-off saves battery power after non-use
- 'Hold' function freezes reading momentarily for easy viewing
- Self-diagnostic for easy troubleshooting (e.g battery indicator, message codes)
- Enhanced power saving allows extended power consumption up to 500 hours with single battery set
- Warranty: Two years



Cat. No	Description	Pack qty
<b>15553653</b>	pH Tester accumet™ AET15 with ATC and temperature readout. Includes replaceable double junction pH sensor, lanyard and alkaline button cell batteries	1
<b>Replacement accessories</b>		
<b>15523643</b>	pH sensor	1

You may also be interested in our range of **pH buffers** on page 126



## accumet™ AET30 portable conductivity tester

fisherbrand

Multi-range with selectable or auto-ranging options - one tester measures from pure water to waste water

- User-replaceable sensor
- Sensors last longer with element made of SS316 stainless steel and sensor casing made of VALOX™
- Large display screen with simultaneous temperature readouts, displays mode, ATC, battery level
- Single and multi-point calibrations with automatic or manual options
- Waterproof, anti-roll design: the IP67 waterproof housing keeps tester good even under wet conditions. Unique anti-roll ribbed design ensures firm user grip
- Innovative cup-style sensor housing design can be used as dip-style or cup-style for holding small volume of samples
- Conductivity ranges: 0 to 200.0µS/cm; 0 to 2000µS/cm; 0 to 20.00mS/cm
- Warranty: Two years



Cat. No	Description	Pack qty
<b>15563653</b>	Conductivity tester, accumet™ AET30 with ATC and temperature display. Includes replaceable cup type sensor, lanyard and alkaline button cell batteries	1
<b>Replacement accessories</b>		
<b>15533643</b>	Conductivity sensor	1

## accumet™ AE6 series portable pH meters

fisherbrand

Versatile, hand-held instrument for a range of lab or environmental applications

- Multi-point calibration (up to five points) with auto-buffer recognition - choice of USA, NIST or pure water buffer standards with  $\pm 0.01$  pH accuracy
- Automatic Temperature Compensation (ATC) for the highest accuracy under fluctuating temperatures
- 'Hold' function momentarily freezes reading for easy viewing and recording
- Auto power-off saves battery power after non-use
- Self-diagnostic with message codes for easy troubleshooting
- Large custom LCD provides optimum viewing even at a distance
- Protective rubber boot shields meter from accidental knocks and features a sturdy built-in stand for easy bench-top operation
- Rugged carrying case (optional) provides handy on-site meter calibration and measurement
- pH Range: 0.00 to 14.00 pH
- Warranty: Three years



Cat. No	Description	Pack qty
<b>15523653</b>	Portable pH meter accumet™ AE6. Includes a pH/temp electrode, rubber armour/stand, batteries and manual	1
<b>15533653</b>	Portable pH/ORP meter, accumet™ AE6B. Includes double junction pH electrode and ATC probe, rubber armour/stand, batteries and manual	1
<b>Replacement accessories</b>		
<b>15563633</b>	Single junction gel pH electrode	1
<b>15503643</b>	pH/ATC gel pH electrode	1
<b>15593633</b>	DJ gel pH electrode	1
<b>15573633</b>	ATC electrode 90mm	1
<b>15583633</b>	ATC electrode 120mm	1
<b>15543643</b>	Grip-clip electrode holder	1

## accumet™ AE6C portable conductimeter

fisherbrand

Multi-range with selectable or auto-ranging options

- Measures everything from pure water to waste water!
- User-replaceable long-lasting sensor made of SS316 stainless steel and VALOX™ casing
- Large display screen with simultaneous temperature readouts, displays mode, ATC, battery level
- Single and multi-point calibrations with automatic or manual options
- Waterproof, anti-roll design ensures firm grip
- Innovative cup-style for small sample volumes
- Conductivity ranges 0 to 200.0µS/cm; 0 to 2000µS/cm; 0 to 20.00mS/cm
- Temperature range 0 to 50.0°C
- Power requirement: 4 x 1.5 V 'A76' micro alkaline batteries (included)
- Dimensions/Weight: 16.5cm x 3.8cm; 90g
- Warranty: Three years



Cat. No	Description	Pack qty
<b>15543653</b>	Portable conductivity meter, accumet™ AE6C. Includes conductivity/ ATC electrode, rubber armour/stand, batteries and manual	1
<b>Replacement accessories</b>		
<b>15513643</b>	Conductivity/ATC electrode	1
<b>15573633</b>	ATC electrode 90mm	1
<b>15583633</b>	ATC electrode 120mm	1
<b>15543643</b>	Grip-clip electrode holder	1

## accumet™ AP100 series portable pH meters

fisherbrand

accumet™ AP100 series meters are versatile and durable making them ideal for the most demanding applications, featuring soft touch keys with comfort grip for one handed operation. Meters are small enough for a shirt pocket, enhancing portability and also saving valuable bench space if used indoors.

- Pocket-sized portable meters for indoor or outdoor use
- Large LCD with backlighting and plain language text making it easy to view and use
- Durable waterproof IP67 housing
- pH resolution and date/time to meet GLP (AP115, AP125)
- 200 data point internal memory
- Three year meter warranty and one year electrode warranty



Cat. No	Description	Application	Includes	Ion range	Temperature range	pH range	Range (mV)
<b>11580184</b>	AP110 Meter only	pH, mV, Temperature	Meter, 9V battery	-	-5° to +100°C	2 to 20	±2000mV
<b>11590184</b>	AP110 Meter kit	pH, mV, temperature	Meter, pH/ATC electrode, refill solution, hard carrying case, sample bottles, pH calibration packets, 9V battery	-	-5° to +100°C	-2 to 20	±2000mV
<b>11560184</b>	AP115 Meter only	pH, mV, temperature	Meter, 9V battery	-	-5° to +100°C	2 to 20	±2000mV
<b>11570184</b>	AP115 Meter kit	pH, mV, temperature	Meter, pH/ATC electrode, refill solution, hard carrying case, sample bottles, pH calibration packets, 9V battery	-	-5° to +100°C	2 to 20	±2000mV
<b>11540184</b>	AP125 Meter only	pH, ion, mV, temperature	Meter, 9V battery	0.001 to 99999	-5° to +100°C	2 to 20	±2000mV
<b>11550184</b>	AP125 Meter kit	pH, ion, mV, temperature	Meter, pH/ATC electrode, refill solution, hard carrying case, sample bottles, pH calibration packets, 9V battery	0.001 to 99999	-5° to +100°C	2 to 20	±2000mV
<b>Replacement parts and accessories</b>							
<b>11560194</b>	pH/ATC electrode refillable, single-junction epoxy body for AP100 series portable meters						
<b>11540234</b>	ATC/Temperature compensation probe for AP100, stainless steel, 0.9m cable						

## pH electrodes

fisherbrand

A range of general purpose electrodes for many common sample types such as aqueous samples and drinking water.



Cat. No	pH Range	Dimensions, mm	Electrolyte	Body material	Temp range °C	Connector	Style	Application	Pack qty
<b>11706358</b>	0 to 13	12 x 120	Gel	Plastic	0 to 80	BNC	Standard	General lab or field	1
<b>11776348</b>	0 to 13	12 x 120	Gel	Plastic	0 to 80	DIN	Standard	General lab or field	1
<b>11749798</b>	0 to 13	12 x 120	KCl 4M + AgCl	Glass	0 to 80	BNC	Standard	General lab or field	1
<b>11739798</b>	0 to 13	12 x 120	KCl 4M + AgCl	Glass	0 to 80	BNC	Standard	General lab or field	1
<b>11786348</b>	0 to 14	12 x 120	Gel	Plastic	0 to 80	S7	Standard	General lab or field	1
<b>11786338</b>	0 to 14	12 x 160	KCl 4M + AgCl	Glass	0 to 80	S7	Standard	Laboratory purpose	1
<b>11769798</b>	0 to 13	6 x 115	KCl 4M + AgCl	Glass	0 to 80	BNC	Micro electrode	Small samples	1
<b>11709818</b>	0 to 13	6 x 115	KCl 4M + AgCl	Glass	0 to 80	DIN	Micro electrode	Small samples	1
<b>11755638</b>	0 to 14	12 x 120	Gel	Plastic	-5 to 100	BNC	Tuff-Tip	Environmental samples	1
<b>11765638</b>	0 to 14	12 x 120	Gel	Plastic	-5 to 100	DIN	Tuff-Tip	Environmental samples	1
<b>11775638</b>	0 to 13	12 x 120	Gel	Plastic	-5 to 100	BNC	Tuff-Tip, double junction	Environmental samples	1
<b>11785638</b>	0 to 13	12 x 120	Gel	Plastic	-5 to 100	DIN	Tuff-Tip, double junction	Environmental samples	1
<b>11736209</b>	1 to 11	6 x 92	Gel	Glass	0 to 70	S7	Spear tip	Food and drink	1
<b>11726358</b>	0 to 14	12 x 120	KCl 3M + AgCl	Glass	0 to 80	S7	Sleeve junction	Laboratory purpose	1

\* Tuff-Tip is a robust alternative to conventional laboratory pH electrodes where membrane breakage is a problem. The rugged pH bulb is protected by unique Tuff-Tip shape making this electrode shock-proof

## ORP electrodes

fisherbrand

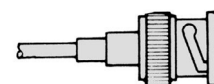
ORP electrode with BNC epoxy body.



Cat. No	pH Range	Material	Dimensions, mm	Electrolyte	Temperature range, °C	Cable	Connector	Pack qty
<b>11768452</b>	±1500mV	Plastic	12 x 120	Gel	0 to 80	1m	BNC	1
<b>11778452</b>	±1500mV	Plastic	12 x 120	Gel	0 to 80	1m	DIN	1
<b>11758452</b>	±1500mV	Plastic	12 x 120	Gel	0 to 80	-	S7	1

## General meter accessories

fisherbrand



Cat. No	Description	Dimensions, mm	Pack qty
<b>Electrode connector cables</b>			
<b>11746348</b>	Connector cable S7 to BNC, 1m	12 x 120	1
<b>11736348</b>	Connector cable S7 to DIN, 1m	12 x 120	1
<b>Printer</b>			
<b>12880653</b>	Compact thermal printer for AB and XL series, 100 to 240V. Includes two rolls paper and four plug types for global use		1
<b>12890653</b>	Replacement thermal paper for printer (Cat. No 12880653) (pack of 2 rolls)		1



## pH indicator paper, rolls

fisherbrand

Provides rapid and precise readings. Fisherbrand™ universal pH indicator paper includes a colour scale printed on the cover for convenience.

- Filter paper strips soaked with one or several coloured indicators of pH
- Economical selection of indicator papers cover the entire range of pH 0 to 14
- Available in a variety of formats to meet individual needs
- Reference chart shows colour changes in steps of pH2



Cat. No	Length	Format	pH Range	Pack qty
15505679	5m	Roll	1 to 14	1 roll
15515679	5m	Roll	1 to 14	4 rolls
15535679	5m	Refill	1 to 14	3 refills
15585669	5m	Roll	1 to 11	1 roll
15565669	5m	Roll	0 to 10	1 roll
15595669	5m	Roll	0 to 11	4 rolls
15545679	5m	Roll	5.5 to 9.0	1 roll
15555679	5m	Roll	6.4 to 8.0	4 rolls

## pH indicator paper, non-bleed, strips

fisherbrand

- pH indicator strips
- Indicator paper is sealed onto each strip
- Non-bleeding
- Supplied with colour comparison chart
- 85mm x 6mm
- The sticks are sufficiently long to avoid contact between the fingers and the test sample



Cat. No	pH Range	Pack qty
10018080	0.0 to 6.0	100
10642751	0.0 to 14.0	100
11346454	0.3 to 2.3	100
10017950	1.7 to 3.8	100
11316454	2.0 to 9.0	100
10353641	3.6 to 6.1	100
10333501	4.5 to 10.0	100
11376454	5.1 to 7.2	100
11386454	6.0 to 7.7	100
10271751	7.0 to 14.0	100
11396454	7.5 to 9.5	100
11306464	7.9 to 9.8	100

## Litmus indicator strips, red

fisherbrand

Paper strips for basic pH testing, turns red to blue if dipped in an alkaline solution



Cat. No	Pack qty
15629504	200

## pH indicator paper, strips

fisherbrand

- For quick and easy pH determination
- Simply dip a piece of pH paper into the solution to be tested and compare the colour with the colour chart provided



Cat. No	pH Range	Pack qty
15575669	0 to 11	200
15525679	1 to 14	200

## Fisher Chemical - pH Buffers

Standard (and colour coded) NIST certified solutions for pH. Ready to use, with accuracy factor of +/-0.02pH at 20°C.

Also available as concentrates, packaged in ampoules.



See Fisher Chemical range of products on page 125 to 132



## ELECTROPHORESIS

Everything you need for your most demanding electrophoretic requirements including a range of versatile and easy-to-use horizontal and vertical gel tanks, blotting modules and power supplies, plus accessories for gel casting, loading and staining.

## Horizontal gel system, Mini

fisherbrand

Simply pour gel, load contrast strips, and press start. The Fisherbrand Mini electrophoresis system is ideal for personal use, for small laboratories or the classroom.

- Quick and easy gel casting
- No clamps or spacers required
- Compact design
- Runs one gel 105 x 60mm or two gels 50 x 60mm
- Warranty: One year



Cat. No	Description	Dimensions, ext. (l x w x h), mm	Electrical requirements	Timer	Buffer volume	Pack qty
15530340	Mini gel system, includes two casting sets, lid and power supply	190 x 130 x 55	115V or 230V, 50/60Hz	0 to 99 min. or continuous	230mL	1

## Horizontal gel system, MultiSUB Mini

fisherbrand

- Economical buffer and gel consumption due to small bench footprint
- Designed for quick checks of low to medium numbers of samples
- Includes two eight-sample 1mm combs, and casting dams
- Injection moulded
- Can run up to 64 samples simultaneously
- Supplied with 70mm x 70mm and 70mm x 100mm gel trays
- Warranty: One year



Cat. No	Description
11863303	MultiSUB Mini horizontal gel system, includes 70mm x 70mm and 70mm x 100mm gel trays

Combs	Thickness 0.75mm		Thickness 1.0mm		Thickness 1.5mm		Thickness 2.0mm		Pack qty
	Cat. No	Sample size, µL	Cat. No	Sample size, µL	Cat. No	Sample size, µL	Cat. No	Sample size, µL	
Prep 1, Marker 1	11873473	152	11823483	203	11833483	304	11843483	405	1
Prep 2, Marker 2	11833493	68	11843493	90	11857553	135	11867553	180	1
Prep 4, Marker 2	11877553	36	11887553	48	11897553	72	11807563	96	1
8 sample, MC	11857563	8	11867563	11	11877563	17	11887563	23	1
8 sample	11817563	19	11827563	25	11837563	37	11847563	50	1
10 sample	11883473	14	11893473	18	11803483	27	11813483	36	1
12 sample, MC	11853483	10	11863483	14	11873483	20	11883483	27	1
16 sample	11893483	7	11803493	10	11813493	15	11823493	20	1

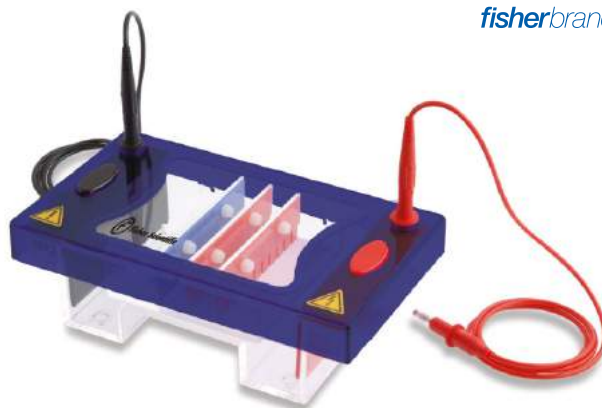
## Accessories

Cat. No	Description	Pack qty
11837633	Casting dams (x2) for 70mm gel trays	1
11847573	UV tray 70mm x 70mm	1
11837573	UV tray 70mm x 100mm	1
11857573	UV gel scoop, 70mm	2
11863473	MultiSUB Mini/Midi gel flexi caster	1
11867573	Viewing platform	1
11807583	Cool-pack and platform	1
11877633	Buffer saver blocks (x 2)	2
11897563	Adhesive loading guides	1

## Horizontal gel system, MultiSUB Midi

fisherbrand

- Ideal for quick checks of samples from PCR and cloning
- Includes two sixteen-sample 1mm combs and casting dams
- Injection moulded
- Can run up to 100 samples simultaneously
- Supplied with 100mm x 70mm and 100mm x 100mm gel trays
- Warranty: One year



Cat. No	Description	Pack qty
11853303	MultiSUB Midi, 100mm x 70mm and 100mm x 100mm UV Trays, 2 x 16 sample combs (1mm), loading guides and dams	1

Combs	Thickness 0.75mm		Thickness 1.0mm		Thickness 1.5mm		Thickness 2.0mm		Pack qty
	Cat. No	Sample size, µL	Cat. No	Sample size, µL	Cat. No	Sample size, µL	Cat. No	Sample size, µL	
Prep 1, Marker 1	11883303	270	11833313	360	11843313	540	11853313	720	1
Prep 2, Marker 2	11843323	118	11893323	158	11803333	236	11813333	315	1
Prep 4, Marker 2	11863333	57	11873333	77	11883333	115	11893333	153	1
8 sample	11803343	30	11813343	41	11823343	61	11813353	81	1
10 sample MC	11893303	20	11803313	27	11813313	41	11823313	54	1
12 sample	11863313	17	11873313	23	11883313	34	11893313	45	1
16 sample	11803323	12	11813323	16	11823323	24	11833323	32	1
20 sample MC	11853323	10	11863323	14	11873323	20	11883323	27	1
25 sample	11823333	7	11833333	10	11843333	15	11853333	20	1

## Accessories

Cat. No	Description	Pack qty
11823353	Adhesive loading guides	1
11803363	Viewing platform	1
11897573	Cool-pack and platform	1
11867633	Buffer saver blocks (x 2)	2
11893353	UV gel scoop, 100mm	1
11873353	UV tray 100mm x 70mm	1
11863353	UV tray 100mm x 100mm	1
11807633	Casting dams	1
11863473	MultiSUB Mini/Midi gel flexi caster	1

## Fisher BioReagents - Essentials for Electrophoresis

From buffer solutions which act to reduce pH changes and over-heating the gel, to DNA ladders for accurate estimation of fragment size, Fisher BioReagents have your horizontal gel electrophoresis needs covered.

For essentials such as PAGE buffers, detergents and denaturing reagents as well as protein standards, simply focus on Fisher BioReagents for your vertical gel electrophoresis needs.



See Fisher BioReagents range of products on page 117 to 124

## Horizontal gel system, MultiSUB Midi Plus

- Ideal for restriction fragment analysis, sample preparation or checking of high numbers of samples
- Can run up to 210 samples
- Low requisite buffer volumes
- Multichannel pipettor compatible combs for fast gel loading
- Injection moulded
- Includes 150mm x 70mm, 150mm x 100mm and 150mm x 150mm gel trays
- Warranty: One year



Cat. No	Description	Pack qty
11833293	MultiSUB Midi Plus, includes 150mm x 70mm, 150mm x 100mm and 150mm x 150mm gel trays	1

Combs	Thickness 0.75mm		Thickness 1.0mm		Thickness 1.5mm		Thickness 2.0mm		Pack qty
	Cat. No	Sample size, µL	Cat. No	Sample size, µL	Cat. No	Sample size, µL	Cat. No	Sample size, µL	
Prep 1, Marker 1	11823363	371	11813373	495	11823373	743	11833373	990	1
Prep 2, Marker 2	11803393	169	11853393	225	11863393	338	11873393	450	1
Prep 4, Marker 2	11803413	91	11813413	122	11823413	182	11833413	243	1
10 sample	11833363	34	11843363	45	11853363	68	11863363	90	1
10 sample, MC	11873363	22	11883363	29	11893363	44	11803373	59	1
12 sample	11843373	30	11853373	41	11863373	61	11873373	81	1
14 sample, MC	11883373	22	11893373	29	11803383	44	11813383	59	1
16 sample, MC	11823383	20	11833383	27	11843383	41	11853383	54	1
18 sample, MC	11863383	8	11873383	11	-	-	11893383	23	1
20 sample	11813393	16	11823393	21	11833393	32	11843393	43	1
28 sample, MC	11883393	8	11893393	11	11803403	17	11813403	23	1
30 sample, MC	11823403	9	11833403	13	11843403	19	11853403	25	1
35 sample	11863403	7	11873403	10	11883403	15	11893403	20	1

### Accessories

Cat. No	Description	Pack qty
11803423	UV tray 70mm x 150mm	1
11883413	UV tray 100mm x 150mm	1
11893413	UV tray 150mm x 150mm	1
11843413	Viewing platform	1
11877573	Cool-pack and platform	1
11813423	UV gel scoop, 150mm	1

## Vertical gel systems, Verti-Gel Mini

Gel casting and running utilise the same insert, so no transfer of glass plates during gel casting is necessary.

- Sliding clamps allowing very rapid set up of both hand cast and precast gels
- Ultra soft silicone seals and pressure bars surround the glass plates guarantee leak proof gel casting
- 2mm thick glass plates prevent breakage and have bonded spacers for convenience
- Accessory electroblotting and tube gel modules are available which use the same outer tank and lid
- Injection molded construction, durable and leakproof
- Sealing system is compatible with all major types of 80mm x 100mm and 100mm x 100mm precast gels
- Low requisite buffer volumes
- Runs up to two gels
- Warranty: One year



Cat. No	Description	Pack qty
11893293	Verti-Gel Mini 100mm x 100mm, no caster (for pre-cast gels)	1
11843293	Verti-Gel Mini 100mm x 100mm including caster (for handcast gels)	1
11883293	Verti-Gel Mini 100mm x 100mm complete system for vertical electrophoresis and blotting, with full complement of accessories	1

## Verti-Gel Mini combs

fisherbrand



Cat. No	Thickness	Comb	Sample size, µL	Pack qty
11837583	0.50mm	1 prep, 1 marker	330	1
11887603	0.50mm	5 sample	45	1
11837613	0.50mm	8 sample MC	25	1
11887613	0.50mm	9 sample	23	1
11857583	0.50mm	10 sample	20	1
11837593	0.50mm	12 sample	16	1
11887593	0.50mm	16 sample MC	13	1
11837603	0.50mm	20 sample	10	1
11847583	0.75mm	1 prep, 1 marker	500	1
11897603	0.75mm	5 sample	70	1
11847613	0.75mm	8 sample MC	40	1
11897613	0.75mm	9 sample	35	1
11867583	0.75mm	10 sample	30	1
11847593	0.75mm	12 sample	25	1
11897593	0.75mm	16 sample MC	20	1
11847603	0.75mm	20 sample	15	1
11807593	1.0mm	1 prep, 1 marker	650	1
11807613	1.0mm	5 sample	100	1
11857613	1.0mm	8 sample MC	60	1
11807623	1.0mm	9 sample	50	1
11877583	1.0mm	10 sample	40	1
11857593	1.0mm	12 sample	35	1
11807603	1.0mm	16 sample MC	25	1
11857603	1.0mm	20 sample	20	1
11817593	1.5mm	1 prep, 1 marker	1000	1
11817613	1.5mm	5 sample	140	1
11867613	1.5mm	8 sample MC	80	1
11817623	1.5mm	9 sample	70	1
11887583	1.5mm	10 sample	60	1
11867593	1.5mm	12 sample	50	1
11817603	1.5mm	16 sample MC	40	1
11867603	1.5mm	20 sample	30	1
11827593	2.0mm	1 prep, 1 marker	1300	1
11827613	2.0mm	5 sample	200	1
11877613	2.0mm	8 sample MC	120	1
11827623	2.0mm	9 sample	100	1
11897583	2.0mm	10 sample	80	1
11877593	2.0mm	12 sample	70	1
11827603	2.0mm	16 sample MC	50	1
11877603	2.0mm	20 sample	40	1

## Verti-Gel Mini accessories

fisherbrand



Cat. No	Description	Pack qty
<b>Accessories – General</b>		
11847623	Casting base 100mm x 100mm	1
11857623	Replacement silicone mat for 100mm x 100mm casting base	1
11853293	Inner running module sliding clamps	1
11887623	Mini cooling pack	1
11857643	Plain glass plates 100mm x 100mm with 0.5mm bonded spacers	2
11897633	Notched glass plates 100mm x 100mm with 0.5mm bonded spacers	2
11807643	Notched glass plates 100mm x 100mm with 0.75mm bonded spacers	2
11867643	Plain glass plates 100mm x 100mm with 0.75mm bonded spacers	2
11817643	Notched glass plates 100mm x 100mm with 1mm bonded spacers	2
11877643	Plain glass plates 100mm x 100mm with 1mm bonded spacers	2
11827643	Notched glass plates 100mm x 100mm with 1.5mm bonded spacers	2
11887643	Plain glass plates 100mm x 100mm with 1.5mm bonded spacers	2
11837643	Notched glass plates 100mm x 100mm with 2mm bonded spacers	2
11897643	Plain glass plates 100mm x 100mm with 2mm bonded spacers	2
11887633	Notched glass plates 100mm x 100mm	2
11847643	Plain glass plates 100mm x 100mm	2
11817583	Replacement platinum wire - 500mm x 0.2mm	1
11877623	Dummy plate 100mm x 100mm	1
11807653	Spacers 10mm x 100mm 0.5mm thick	2
11817653	Spacers 10mm x 100mm 0.75mm thick	2
11827653	Spacers 10mm x 100mm 1mm thick	2
11837653	Spacers 10mm x 100mm 1.5mm thick	2
11847653	Spacers 10mm x 100mm 2mm thick	2
11863293	Caster stand	1
<b>Accessories - Blotting</b>		
11837623	Mini blotting module	1
11827583	Verti-Gel blot mini cassette	1
11857653	Fibre pad for blotting 100mm x 100mm gels	8
<b>Accessories - 2D Electrophoresis</b>		
11867623	Mini IEF module	1
11877653	Capillary tube 75mm long, 1mm I.D.	10
11867653	Blanking ports	10

You may also be interested in our range of **Fisher BioReagents** on pages 117 to 124



## Electrophoresis power supplies, Mini 300V

*fisherbrand*

The Mini 300V Plus offers good performance at an affordable price. With maximum constant current output of 400mA and constant voltage up to 300V, the Mini 300V Plus is capable of running all Fisherbrand horizontal and vertical PAGE mini gel systems, either on a continuous run or on a timed setting up to 999 minutes. The Mini 300V user-friendly interface with a clear LED display is easily adjustable in 1V and 1mA increments making it perfect for separations where precise settings are required. It has an ultra compact footprint and two pairs of parallel power terminals allow electrophoresis units to be run simultaneously.



- With alarm function and wipe-clean polycarbonate housing
- Stackable design
- Enhanced in-built safety features
- Three-digit LED display
- Individual indication of control parameter
- Warranty: One year

Cat. No	Description	Dimensions (d x w x h), mm	Pack qty
12643546	Mini 300V Plus power supply, 300V, 400mA, 60W, 100-240V a.c., twin output	140 x 191 x 84	1

## Electrophoresis power supplies, Midi 300V

*fisherbrand*

The Midi 300V/4 has nearly twice the current and power of an alternative market leading product, and at 700mA and 150W, offers a specification comparable to any equivalent power supply presently available on the market. The Midi 300V/4 is suitable for use with all Fisherbrand horizontal MultiSUB systems and Verti-Gel units. Microprocessor controlled, with four sets of power terminals that allow simultaneous operation of up to four electrophoresis units either at constant voltage or constant current. The timer function may be set to run continuously or up to a maximum 999 minutes with an alarm that sounds to signify termination of the run. A user friendly keypad houses a clear three-digit LED to aid set up, as well as a convenient 'pause/resume' key, particularly useful during extended runs when it is necessary to access the gel tank to monitor buffer levels and sample migration.



- Stackable design
- Rigorous in-built safety mechanisms
- Automatic crossover
- Dual voltage compatibility
- Warranty: One year

Cat. No	Description	Dimensions (d x w x h), mm	Pack qty
12613546	Midi 300V/4 power supply, 300V, 700mA, 150W, 100-240V a.c., four output	190 x 305 x 95	1

## Electroporation Cuvette Plus™

*fisherbrand*

- Disposable, colour-coded cuvettes
- Fit most electroporators
- Includes embedded aluminium electrodes
- Polycarbonate
- Sterile



Cat. No	Capacity, µL	Width, mm	Pack qty
15532423	90	1	50
15542423	400	2	50
15552423	800	4	50

*fisherbrand*

Focus on Fisherbrand

for all your **sampling and storage** needs



For full range refer to  
[www.eu.fishersci.com/go/fisherbrand](http://www.eu.fishersci.com/go/fisherbrand)

**fisher**scientific  
 by Thermo Fisher Scientific



## FILTRATION

Essential products to help you with your sample collection, purification and preparation.

### Cell strainers

*fisherbrand*

Sterile, rapid, easy to use device for isolating primary cells to consistently obtain a uniform single-cell suspension from tissues.

- Available in three mesh sizes, 40µm, 70µm, and 100µm
- Polypropylene frame with nylon mesh
- Sterile
- Individually packed
- Fits 50mL conical tubes



Cat. No	Mesh size	Pack qty
11587522	40µm	50
11597522	70µm	50
11517532	100µm	50

### Extraction cartridge, Grade 8

*fisherbrand*

Suitable for all extractor systems, these thimbles offer high mechanical strength and excellent retention capacity. They are made with high purity cellulose fibres and are pH neutral and fat free.



- Use for extraction of sulphur in gaseous masses, determination of dust and tar in industrial air and gases
- Grade 8 fibreglass extraction cartridge
- No binder

Cat. No	Dimensions (d x l), mm	Pack qty
11734546	25 x 80	25

### Extraction thimbles, Grade 7

*fisherbrand*

Suitable for all extractor systems, these thimbles offer high mechanical strength and excellent retention capacity. They are made with high purity cellulose fibres and are pH neutral and fat free.



Applications include:

- Extraction of free lipids in food
- Extraction of sulfur from gases
- Lacquer and binder analysis in paint colours

Cat. No	Dimensions (d x l), mm	Pack qty
11724043	19 x 90	25
11734043	22 x 80	25
11744043	25 x 80	25
11754043	25 x 100	25
11774043	26 x 60	25
11784043	28 x 80	25
11794043	28 x 100	25
11542103	28 x 120	25
11714053	30 x 100	25
11724053	33 x 80	25
11734053	33 x 100	25
11744053	37 x 130	25
11754053	41 x 123	25

### Filter discs, glass microfibre

*fisherbrand*

Composed of 100% borosilicate glass, binder-free glass microfibre filters promote both rapid filtration and retention of very fine particles (up to one micron). They are therefore particularly suitable for the microfiltration of air, gases, water or aerosols. Resistant to moisture and heat (up to 500°C) and low metal content, glass microfibre filters are compatible with most chemical reagents.

Cat. No	Diameter, mm	Pore size, µm	Pack qty
This filter is mainly used for water analysis; for example, suspended solids in natural, industrial and potable waters			
15659494	25	1.2	100
15669494	45	1.2	100
15679494	90	1.2	100
This filter is suitable for general filtration of solvents, analysis of HPLC samples, filtration of proteins and biochemical solutions plus other applications where fine particulates are involved			
15689494	25	0.7	100
15699494	47	0.7	100

### Filter paper, standard sheets

*fisherbrand*

- Standard filter papers are made of 100% cellulose
- Smooth, medium filtration for general applications
- Pore size 10 to 20µm

Cat. No	Format	Dimensions, mm	Pack qty
15679504	Sheet	520 x 420	500

### Filter papers, medium flow, standard discs

*fisherbrand*

Standard, general purpose filter paper discs with medium flow up to 240mm diameter. Suitable for general filtration of many types of sample.



- Plain cellulose discs
- Particle retention 5 to 13µm

Cat. No	Diameter, mm	Flow	Pack qty
15565679	42.5	Medium	100
15575679	55	Medium	100
15585679	70	Medium	100
15595679	85	Medium	100
15505689	90	Medium	100
15515689	110	Medium	100
15525689	125	Medium	100
15535689	150	Medium	100
15545689	185	Medium	100
15555689	240	Medium	100

## Filter papers, fast flow, standard discs *fisherbrand*

- Filter paper discs for general laboratory work
- Range of diameters available
- Fast flow
- Pore size 17 to 30µm



Cat. No	Diameter, mm	Flow	Pack qty
15565689	70	Fast	100
15575689	90	Fast	100
15585689	100	Fast	100
15595689	150	Fast	100
15505699	250	Fast	100

## Filter papers, suitable for chromatography *fisherbrand*

High quality filter papers for chromatography



Cat. No	Description	Dimensions, mm	Pack qty
15639494	Sheets, 0.2mm thickness, 90g/m <sup>2</sup>	200 x 200	100
15649494	Sheets, 0.36mm thickness, 180g/m <sup>2</sup>	460 x 570	100

## Filter papers, fast flow, folded discs *fisherbrand*

- Filter paper discs for general laboratory work
- Fast flow
- Available prefolded fluted for ready-to-use convenience
- Pore size 17 to 30µm



Cat. No	Diameter, mm	Flow	Pack qty
15515699	100	Fast	100
15525699	150	Fast	100
15535699	190	Fast	100
15545699	250	Fast	100
15555699	330	Fast	100

## Syringe filters *fisherbrand*

- High sample throughputs
- Sterile and non-sterile options
- Polypropylene housing - strong and chemically resistant
- Suitable for a broad range of applications



Cat. No	Diameter, mm	Sterile	Membrane material	Pore size, µm	Pack qty
15181489	25	No	Hydrophilic PTFE	0.2	50
15101499	25	No	Hydrophilic PTFE	0.45	50
15121499	25	No	Nylon	0.2	50
15131499	25	No	Nylon	0.45	50
15141499	25	No	PTFE	0.2	50
15151499	25	No	PTFE	0.45	50
15161499	13	No	PTFE	0.2	100
15171499	13	No	PTFE	0.45	100
15181499	33	Yes	PVDF	0.2	50
15191499	33	Yes	PVDF	0.45	50
15206869	33	Yes	PES	0.2	50
15216869	33	Yes	PES	0.45	50

## Filter papers, quantitative, blue *fisherbrand*

- Fine pore Grade 15 quantitative filter paper (ashless)
- Very slow filtering
- 2-4µm particle retention
- Ideal for extremely difficult filtration conditions such as cold barium sulphate, metastannic acid or cuprous oxide



Cat. No	Diameter, mm	Pack qty
15669504	185	100

You may also be interested in our range of **pumps on pages 99 to 101**



## GLASSWARE AND PLASTICWARE

This section features everyday, familiar labware items such as beakers, bottles, cylinders, flasks, funnels, microplates, tubes and vials that are an essential component of practically all laboratory workflows. Choosing your glassware and plasticware from Fisherbrand is the smart way to achieve cost savings over branded products without having to compromise on quality.

## Beakers, squat form, borosilicate glass 3.3

fisherbrand

- With spout
- Graduated
- ISO 3819 DIN 12331



Cat. No	Volume, mL	Height, mm	Exterior diameter, mm	Pack qty
15469073	25	50	34	10
15479073	50	60	42	10
15489073	100	70	50	10
15499073	150	80	60	10
15409083	250	95	70	10
15419083	400	110	80	10
15429083	600	125	90	10
15439083	800	135	100	10
15449083	1000	143	105	10
15459083	2000	185	130	1
15469083	3000	210	150	1
15479083	5000	270	170	1
15489083	10000	350	217	1

## Beakers, squat form, borosilicate glass 3.3, heavy duty

fisherbrand

- Heavy wall construction for increased mechanical strength
- With spout
- Graduated
- Reinforced rim with 'easy pour' pouring spout
- Uniform wall thickness for optimum optical clarity



Cat. No	Volume, mL	Pack qty
15446123	150	10
15476123	250	10
15486123	400	10
15496123	600	10
15406133	1000	10
15426133	2000	4
15436133	4000	1

## Beakers, tall form, borosilicate glass 3.3

fisherbrand

- With spout
- Graduated
- ISO 3819 DIN 12331



Cat. No	Volume, mL	Pack qty
15499083	50	10
15409093	100	10
15419093	150	10
15429093	250	10
15439093	400	10
15449093	600	10
15459093	800	10
15469093	1000	10
15479093	2000	1
15489093	3000	1

## Beakers, polypropylene, tri-cornered

fisherbrand

- Suitable for use with commonly used acids, alkalis and solvents
- Each beaker has three drip-free pouring spouts
- Moulded graduations, stackable



Cat. No	Volume, mL	Graduations, mL	Height, mm	O.D., mm	Pack qty
11749398	50	5	57	49	100
11759398	100	10	72	58	100
11769398	250	10	90	76	100
11779398	400	20	108	85	100
11789398	800	50	133	107	100
11799398	1000	50	145	115	100

## Beakers, PTFE, squat form

fisherbrand

- Non-contaminating and inert to highly corrosive reagents
- Non-wettable, lightweight and heat resistant
- Can be heated on a hotplate up to 280°C
- Easy to clean
- Spout for easy pouring
- Isostatically moulded from pure PTFE



Cat. No	Volume, mL	Pack qty
10733271	5	1
10166570	10	1
10288380	25	1
10628461	50	1
10792921	100	1
10248480	150	1
10713101	250	1
10349740	500	1
10044630	1000	1
10762751	2000	1
10237860	5000	1

## Beakers, PTFE, Thermotech™

fisherbrand

- Pure PTFE body with a specially formulated stabilising PTFE carbon base as a single moulding
- Totally inert pure PTFE inner surface
- Heatable to 270°C
- Improved heat transfer



Cat. No	Volume, mL	Height, mm	O.D., mm	Pack qty
10630034	100	74	56	1
10736934	250	94	75	1
10746934	400	112	85	1

## Bottles, reagent and media, clear borosilicate glass, wide screw neck

fisherbrand

- Graduated and supplied with blue polypropylene cap and pouring ring
- ISO/GL 45 screw thread standard to all sizes, conforms to ISO R1115 and DIN 168
- Chemically resistant and can be repeatedly sterilised to 140°C
- Autoclavable, but do not autoclave bottles with a tightly screwed cap
- Internal neck diameter, mm: 27



Cat. No	Volume, mL	Wall thickness, mm	O.D., mm	Height, mm (bottle only)	Pack qty
15446113	100	1.5	56	100	10
15456113	250	1.5	70	138	10
15476113	500	1.5	86	176	10
15486113	1000	1.7	101	225	10
15406123	2000	2.0	136	260	1
15416123	5000	2.0	181	330	1
15436123	10000	2.7	227	410	1

## Bottles, soda glass, straight sided

fisherbrand

- Ideal for soil sampling and environmental applications
- Straight sided walls allow for the complete removal of contents
- Bottles are autoclavable but the caps are not autoclavable
- Bottles are packed with PTFE or PV lined caps ready-fitted
- Available certified cleaned as per EPA guidelines for semi-volatiles, pesticides, PCBs and metals. A certificate of analysis is attached to each lot
- For full range visit eu.fishersci.com



Cat. No	Volume, mL	Thread style	Dia x H, mm	Mouth ID, mm	Pack qty
For general use, with white polypropylene cap with PTFE faced foamed polyethylene liner, clear glass					
11714339	30	43/400	43 x 43	27.7	48
11724339	60	53/400	55 x 48	40.1	24
11734339	125	58/400	60 x 68	40.1	24
11778789	250	70/400	73 x 88	47.0	12
11744339	500	89/400	91 x 95	69.8	12
11754339	1000	89/400	95 x 170	74.1	12

For general use, with white polypropylene cap with polyvinyl liner, clear glass					
11764339	30	43/400	43 x 43	27.7	48
11774339	60	53/400	55 x 48	40.1	24
11784339	125	58/400	60 x 68	40.1	24
11794339	250	70/400	73 x 88	53.1	12
11704349	500	89/400	91 x 95	69.8	12
11714349	1000	89/400	95 x 170	74.1	12

Certified clean, with white polypropylene cap with PTFE faced foamed polyethylene liner, clear glass					
11784289	60	53/400	55 x 48	40.1	24
11794289	125	58/400	60 x 68	40.1	24
11704299	250	70/400	73 x 88	53.1	24
11714299	500	89/400	91 x 95	69.8	12
11724299	1000	89/400	95 x 170	74.1	12

For general use, with white polypropylene cap with PTFE faced foamed polyethylene liner, amber					
11583782	125	58/400	60 x 68	40.1	24
11734349	250	70/400	73 x 88	53.1	12

## Caps and pouring rings for reagent and media bottles

fisherbrand



Cat. No	Colour	ISO thread GL	Pack qty
Polypropylene screw caps, with lip seal, autoclavable to 140°C			
11547033	Yellow	45	10
11537033	Green	45	10
Polypropylene pouring rings, autoclavable to 140°C			
11597033	Yellow	45	10

## Bottles, soda glass, Boston round, narrow mouth

fisherbrand

- Narrow mouth, ideal for solvents, chemicals and sample storage
- Available in clear and amber
- Bottles are packed with caps attached
- Bottles are autoclavable but the caps are not
- For full range visit eu.fishersci.com



Cat. No	Volume, mL	Thread style	Mouth ID, mm	Dia x H, mm	Pack qty
For general use, with white polypropylene cap with PTFE faced foamed polyethylene liner, clear glass					
11728889	30	20/400	10.3	31 x 79	48
11738889	60	20/400	10.3	39 x 94	24
11748889	125	22/400	12.2	48 x 112	24
11758889	250	24/400	13.1	60 x 136	12
11768889	500	28/400	15.5	75 x 168	12
11778889	1000	33/400	20.1	94 x 206	12
For general use, with white polypropylene cap with PTFE faced foamed polyethylene liner, amber glass					
11708919	30	20/400	10.3	31 x 79	48
11718919	60	20/400	10.3	39 x 94	24
11728919	125	22/400	12.2	48 x 112	24
11738919	250	24/400	13.1	60 x 136	12
11748919	500	28/400	15.5	75 x 168	12
11758919	1000	33/400	20.1	94 x 206	12

## NEED MORE GLASS AND PLASTICWARE PRODUCTS?



For further information on the products featured visit [www.eu.fishersci.com/go/fisherbrand](http://www.eu.fishersci.com/go/fisherbrand)

**fisherbrand**

## Bottles, soda glass, wide mouth packers

**fisherbrand**

- Ideal for storage of dry powders
- Wide mouth bottles allow for easy accessibility for removal of contents
- Available in clear and amber
- Bottles are autoclavable but the caps are not



Cat. No	Volume, mL	Dia x H, mm	Thread style	Mouth ID, mm	Pack qty
For general use, with white polypropylene cap with PTFE faced foamed polyethylene liner, clear					
<b>11718749</b>	125	52 x 84	48/400	35.0	24
<b>11704329</b>	250	63 x 110	58/400	44.1	24
<b>11714329</b>	500	79 x 133	63/400	50.1	24
<b>11734329</b>	2000	122 x 213	83/400	69.9	6
<b>11553672</b>	3810	157 x 256	89/400	74.1	4
For general use, with white polypropylene cap with polyvinyl liner, clear					
<b>11744329</b>	125	52 x 84	48/400	35.0	24
<b>11754329</b>	250	63 x 110	58/400	44.1	24
<b>11764329</b>	500	79 x 133	63/400	50.1	24
<b>11784329</b>	2000	122 x 213	83/400	69.9	6
<b>11593662</b>	3810	157 x 256	89/400	74.1	4
For general use, bottle only, clear					
<b>11563672</b>	125	52 x 84	48/400	35.0	24
<b>11573672</b>	250	63 x 110	58/400	44.1	24
<b>11583672</b>	500	79 x 133	63/400	50.1	24
<b>11503682</b>	2000	122 x 213	83/400	69.9	6
<b>11513682</b>	3810	157 x 256	89/400	74.1	4
For general use, with white polypropylene cap with PTFE faced foamed polyethylene liner, amber					
<b>11754249</b>	30	37 x 65	28/400	15.5	24
<b>11764249</b>	60	44 x 75	33/400	20.1	24
<b>11774249</b>	125	54 x 95	38/400	25.1	24
<b>11784249</b>	250	66 x 119	45/400	31.8	24
<b>11794249</b>	500	80 x 146	53/400	40.1	12
<b>11704259</b>	1000	99 x 178	53/400	40.1	12
<b>11563702</b>	1250	106 x 190	70/400	57.2	6
<b>11714259</b>	2500	140 x 239	70/400	54.9	12
For general use, with Poly-Seal™ lined cap, amber. Cap colour may vary					
<b>11728749</b>	30	37 x 65	28/400	15.5	24
<b>11738749</b>	60	44 x 75	33/400	20.1	24
<b>11748749</b>	125	54 x 95	38/400	25.1	24
For general use, with white polypropylene cap with polyvinyl liner, amber					
<b>11724259</b>	6	24 x 44	20/400	11.9	720
<b>11533682</b>	8	25 x 52	20/400	10.3	912
<b>11734259</b>	15	31 x 50	28/400	15.5	624
<b>11754319</b>	30	37 x 65	28/400	15.5	24
<b>11563682</b>	30	37 x 65	28/400	15.5	432
<b>11758749</b>	60	44 x 75	33/400	20.1	24
<b>11744259</b>	60	44 x 75	33/400	20.1	216
<b>11593682</b>	15	54 x 95	38/400	25.1	24
<b>11754259</b>	125	54 x 95	38/400	25.1	180
<b>11774319</b>	250	66 x 119	45/400	31.8	24
<b>11523692</b>	250	66 x 119	45/400	31.8	84
<b>11784319</b>	500	80 x 146	53/400	40.1	12
<b>11734319</b>	500	80 x 146	53/400	40.1	60
<b>11778849</b>	1000	99 x 178	53/400	40.1	12
<b>11744319</b>	1000	99 x 178	53/400	40.1	36
Certified clean, with white polypropylene cap with PTFE faced foamed polyethylene liner, amber					
<b>11734299</b>	30	37 x 65	28/400	15.5	24
<b>12548716</b>	60	44 x 75	33/400	20.1	24
<b>11744299</b>	125	54 x 95	38/400	25.1	12
<b>11754299</b>	250	66 x 119	45/400	31.8	12
<b>11764299</b>	500	80 x 146	53/400	40.1	12
<b>12558716</b>	1000	99 x 178	53/400	40.1	12

Custom cleaned, with white polypropylene cap with PTFE faced foamed polyethylene liner, amber					
<b>11704289</b>	60	44 x 75	33/400	20.1	24
<b>11714289</b>	125	54 x 95	38/400	25.1	24
<b>11724289</b>	250	66 x 119	45/400	31.8	24
<b>11734289</b>	500	80 x 146	53/400	40.1	12
<b>13161794</b>	1000	99 x 178	53/400	40.1	12
For general use, with white polypropylene cap with PTFE faced foamed polyethylene liner, clear, graduated					
<b>11718769</b>	30	34 x 68	33/400	20.1	48
<b>11728769</b>	60	42 x 83	38/400	25.1	48
<b>11738769</b>	125	51 x 102	48/400	35.0	24
<b>11744199</b>	250	62 x 127	58/400	44.1	24
<b>11748769</b>	500	76 x 145	70/400	57.2	24
For general use, with Poly-Seal™ lined cap, clear, graduated					
<b>11798759</b>	30	34 x 68	33/400	20.1	48
<b>11553742</b>	30	42 x 83	33/400	25.1	432
<b>11708769</b>	60	42 x 83	38/400	25.1	48
<b>11573742</b>	60	42 x 83	38/400	25.1	288
For general use, bottle only, clear, graduated					
<b>11533752</b>	30	34 x 68	33/400	20.1	432
<b>11543752</b>	60	42 x 83	38/400	25.1	288
<b>11553752</b>	125	51 x 102	48/400	35.0	144
<b>11563752</b>	250	62 x 127	58/400	44.1	96
<b>11573752</b>	500	76 x 145	70/400	57.2	48
For general use, with white polypropylene cap with polyvinyl liner, clear, graduated					
<b>11768859</b>	30	34 x 68	33/400	20.1	48
<b>11553732</b>	30	34 x 68	33/400	20.1	432
<b>11778859</b>	60	42 x 83	38/400	25.1	48
<b>11573732</b>	60	42 x 83	38/400	25.1	288
<b>11788859</b>	125	51 x 102	48/400	35.0	24
<b>11593732</b>	125	51 x 102	48/400	35.0	144
<b>11798859</b>	250	62 x 127	58/400	44.1	24
<b>11513742</b>	250	62 x 127	58/400	44.1	96
<b>11708869</b>	500	76 x 145	70/400	57.2	24
<b>11794319</b>	500	76 x 145	70/400	57.2	48
Certified low particulate, with white polypropylene cap with PTFE faced foamed polyethylene liner, clear, graduated					
<b>13158063</b>	125	51 x 102	48/400	35.0	24
<b>13174364</b>	500	76 x 145	70/400	57.2	24

## Bottles, soda glass, lightweight, round, screw neck

**fisherbrand**


- ISO range for liquids with fitted 28mm white polypropylene screw cap and PP/SOR liner
- Type III soda lime glass

Cat. No	Volume, mL	Thread style	Height, mm	Diameter, mm	Pack qty
Clear					
<b>12890874</b>	30	R3/28	67	35	40
<b>12800884</b>	60	R3/28	94	38.6	40
<b>12810884</b>	100	R3/28	104.8	46.1	20
<b>12820884</b>	150	R3/28	122.8	51.6	20
<b>12840884</b>	300	R3/28	151.3	65.6	20
<b>12850884</b>	500	R3/28	176.8	76.8	10
<b>12860884</b>	1000	R3/28	215.6	97.5	10
Amber					
<b>12337128</b>	60	R3/28	94	38.6	40
<b>12347128</b>	100	R3/28	104.8	46.1	20
<b>12810944</b>	150	R3/28	122.8	51.6	20
<b>12830944</b>	500	R3/28	176.8	76.8	10
<b>10595924</b>	1000	R3/28	215.6	97.5	10



## Bottles, tamper-evident

- ISO range for liquids
- Fitted 28mm white polypropylene tamper evident vistop closure and polycone liner
- Type III soda lime glass



Cat. No	Volume, mL	Thread style	Height, mm	Diameter, mm	Pack qty
Clear					
12880884	30	R3/28	67.0	35.0	40
12890884	60	R3/28	94.0	38.6	40
12800894	100	R3/28	104.8	46.1	20
12820894	150	R3/28	122.8	51.6	20
12830894	250	R3/28	142.9	61.7	20
12840894	300	R3/28	151.3	65.6	20
12850894	500	R3/28	176.8	76.8	10
12860894	1000	R3/28	215.6	97.5	10
Amber					
12850944	15	R3/28	52.0	33.0	40
11367114	30	R3/28	67.0	35.0	40
11377114	60	R3/28	94.0	38.6	40
12880944	100	R3/28	104.8	46.1	20
12890944	150	R3/28	122.8	51.6	20
12800954	250	R3/28	142.9	61.7	20
12810954	500	R3/28	176.8	76.8	10
12820954	1000	R3/28	215.6	97.5	10

## Bottles, narrow mouth, leakproof HDPE

- Clear or translucent HDPE
- Narrow mouth
- No drip lip ensures safe, clean pouring
- Linerless screw caps attached
- Economical bottles with a double-seal, leakproof closure



Cat. No	Volume, mL	Dimensions (d x h), mm	Pack qty
Clear			
11735383	30	38 x 84	72
11745383	60	48 x 99	72
11765383	250	61 x 132	72
11775383	500	71 x 171	48
11785383	1000	91 x 213	24
Translucent			
11907974	125	48 x 99	500
11937964	250	61 x 132	250
11997954	500	71 x 171	125
11977924	1000	91 x 213	50

## Bottles, wide mouth, leakproof HDPE

fisherbrand

- Higher temperature-use rating than LDPE: up to 120°C (248°F) for short periods and 110°C (230°F) for continuous use
- Brittleness temperature at -100°C (-148°F)
- Bottles may be radiation, EtO or chemically sterilised
- Not autoclavable



Cat. No	Volume, mL	Dimensions (d x h), mm	Pack qty
Clear			
11775243	30	36 x 64	72
11785243	60	38 x 86	72
11795253	250	62 x 132	72
11775253	500	74 x 168	48
11745253	1000	81 x 201	24
Translucent			
11917974	125	51 x 99	500
11947964	250	62 x 132	250
11907964	500	74 x 168	125
11987924	1000	81 x 201	50

## Bottles, LDPE, translucent wide mouth

fisherbrand

- Virtually unbreakable, yet very flexible
- Chemically resistant to most weak and strong acids and organic solvents, but can be slowly attacked by strong oxidising agents and some solvents that can cause softening and swelling
- Maximum use temperature 80°C (176°F) with brittleness temperature of -100°C (-148°F)
- Bottles can be radiation, gas, EtO or chemically sterilised
- Not autoclavable



Cat. No	Volume, mL	Dimensions (d x h), mm	Threaded neck size, mm	Pack qty
11957934	30	36 x 64	28	72
11967934	60	38 x 86	28	72
11977934	125	51 x 99	38	72
11987934	250	62 x 132	43	72
11937924	500	74 x 168	53	48
11967904	1000	81 x 201	63	24

## Bottles, polypropylene, wide mouth

fisherbrand

- Can be heated up to 120°C (248°F) for short periods and 100°C (212°F) continuously (bottle may reach maximum temperature only if empty)
- Brittleness temperature of 0°C (32°F)
- Rigid walls
- Excellent chemical resistance
- Can be sterilised by all normal methods, except dry heat and radiation
- Completely disengage threads or remove cap before autoclaving



Cat. No	Volume, mL	Dimensions (d x h), mm	Threaded neck size, mm	Pack qty
11917934	30	36 x 64	28	72
11927934	60	38 x 86	28	72
11937934	125	51 x 99	38	72
11947934	250	62 x 132	43	72
11927924	500	74 x 168	53	48
11957904	1000	81 x 201	63	24

## Bottles media, PETG

fisherbrand

- Reduce the risk of cross contamination with these sterile, disposable media bottles
- An inexpensive and shatterproof alternative to glass media bottles
- Non-pyrogenic and non-cytotoxic to protect cells
- Moulded in graduations do not rub off
- Made from clear, lightweight, polyethylene terephthalate copolyester (PETG) providing impact resistance and excellent gas barrier properties
- Closure is high density polyethylene (HDPE)
- Bottles packed in a shrink-wrapped tray to stay clean
- Heat-shrink band around cap and bottle neck provides visual assurance of sterility for individual bottles until band is removed



Cat. No	Volume, mL	Pack qty
12074118	125	24
12084118	250	24
12064118	500	12
12094118	1000	12

## Bottles, HDPE, Winchester pattern, UN approved

fisherbrand

- Tested and certified to meet UN standards for the safe transportation of hazardous materials
- Supplied with tamper evident polypropylene cap. 2.5L and 5L sizes have moulded in carrying/pouring handle



Cat. No	Volume, L	Height, mm	Width, mm	Neck size, mm	Pack qty
Clear					
10653802	1.0	210	100	45	4
10111751	2.5	295	130	45	4
10203181	5.0	330	170	45	1
Black					
10509741	2.5	295	130	45	4
10614382	5.0	330	170	45	1

## Burettes, borosilicate glass Class A with PTFE tap

fisherbrand

- Constructed of borosilicate glass
- Single bore with interchangeable PTFE stopcock
- 0.10mL blue ceramic graduations
- Class A, BS-ISO 385 Compliance



Cat. No	Volume, mL	Graduations, mL	Pack qty
10450893	25	0.10	1
10738081	50	0.10	1
Accessories			
Cat. No	Description		Pack qty
12967730	Burette tip for Fisherbrand burettes borosilicate glass		5

## Burettes, borosilicate glass Class B with stopcock

fisherbrand

- Manufactured from borosilicate glass
- Complies with BS-ISO 385
- Single bore
- Interchangeable glass or PTFE stopcock
- 0.10mL blue ceramic graduations



Cat. No	Volume, mL	Stopcock type	Pack qty
Glass stopcock			
10448972	50	Glass	1
PTFE stopcock			
10569771	50	PTFE	1
Accessories			
Cat. No	Description		Pack qty
12967730	Burette tip for Fisherbrand burettes borosilicate glass		5

## Carboys, HDPE

fisherbrand

- Durable construction for long life
- Space-saving rectangular design
- Carboys ideal for storing and dispensing lab water and reagents
- Not autoclavable



Cat. No	Volume, L	Spigot	Pack qty
13438039	9	Yes	1
13408039	20	Yes	1

## Carboys, polypropylene

fisherbrand

- Durable construction for long life
- Space-saving rectangular design
- Carboys ideal for storing and dispensing lab water and reagents
- Autoclavable



Cat. No	Volume, L	Spigot	Pack qty
13418039	9	Yes	1
13428039	20	Yes	1

FISHERBRAND  
SPOTLIGHT

The Fisherbrand digital colorimeter is an easy-to-use instrument and is a perfect accompaniment to the range of Fisherbrand cuvettes. Samples can be measured in either standard 10mm pathlength cuvettes (a minimum of 400µL is required) or in 16mm diameter test tubes (adapters for 10/12mm test tubes are available as an optional accessory)

**Digital colorimeter**

Cat. No 11805962 (EU plug)

Cat. No 11528092 (UK plug)

For further information on the products featured visit  
[www.eu.fishersci.com/go/fisherbrand](http://www.eu.fishersci.com/go/fisherbrand)

Cuvettes, UV, polystyrene single use *fisherbrand*

- Use these cuvettes for more constant sample temperatures during photometric measurements
- Cuvettes have improved photometric properties
- Very low variation of extinction values
- Excellent optical transmission range
- Small wall thickness for increased heat transfer



Cat. No	Volume, µL	Material	Dimensions (w x h), mm	Pathlength, mm	Wavelength range, nm	Pack qty
10349334	4000	PS	12.5 x 12.5 x 45	10	220 to 900	100
10594175	1600	PS	12.5 x 12.5 x 45	10	220 to 900	100

Cuvettes, UV/Visible, polystyrene *fisherbrand*

- Feature excellent optical transmission range and small wall thickness for increased heat transfer



Cat. No	Volume, µL	Material	Pathlength, mm	Wavelength range, nm	Pack qty
11847832	1600	PS	10	Visible	1000
11837832	4000	PS	10	Visible	1000
11827922	1600	PS	10	UV/visible	1000
11817922	4000	PS	10	UV/visible	1000

Cuvettes, visible, polystyrene single use *fisherbrand*

- Transparency: approximately 90% between 400nm and 800nm



Cat. No	Material	Dimensions (w x h), mm	Capacity, µL	Pathlength, mm	Wavelength range, nm	Pack qty
11537692	PS	12.5 x 45	4000	10	336 to 850	100
11547692	PS	12.5 x 45	1600	10	336 to 850	100

Cylinders, measuring, borosilicate glass, Class A *fisherbrand*

- Graduated in blue ceramic markings
- Individual reorder code on each item
- Pouring spout
- Hexagonal base
- DIN12680 BS604 ISO4788



Cat. No	Volume, mL	Graduations, mL	Pack qty
12952310	5	0.1	2
11517832	10	0.2	2
11527832	25	0.5	2
11537832	50	1.0	2
11547832	100	1.0	2
11557832	250	2.0	2
11567832	500	5.0	2
11577832	1000	10	2
12962320	2000	20	1

Cylinders, measuring, borosilicate glass, Class B, blue ceramic graduations *fisherbrand*

Class B cylinders are ideal for basic measurement of liquids in qualitative work such as measuring solvents for reactions, making up solutions or adding an excess of a reagent, and are ideal for schools, universities and for general research laboratories.

- Graduated in blue ceramic markings
- Hexagonal base
- Individual reorder code on each item
- DIN 12680 BS 604 ISO 4788
- With blue polypropylene stopper



Cat. No	Volume, mL	Graduations, mL	Pack qty
11884263	25	0.5	2
12065645	50	1.0	2
11903365	100	1.0	2
12075645	250	2.0	2
11708265	500	5.0	2
12055645	1000	10	2
12045645	2000	20	1

Cuvettes, disposable, PS and PMMA *fisherbrand*

- Disposable 10mm pathlength cuvettes designed for visible and UV/Vis assay
- Moulded-in arrow indicates direction of transmission on standard and semi-micro cuvettes to assure uniformity
- Clear four sided cuvettes are ideal for fluorimetry and nephelometry, as well as spectrophotometry
- Each case contains cuvettes with same mould impression number
- In stackable trays



Cat. No	Volume, µL	Type	Material	Pathlength, mm	Wavelength range, nm	Inner pack qty	Pack qty
11682599	4000	Standard/macro	Polystyrene	10	340 to 750	100	500
11602609	1500	Semi-micro	Polystyrene	10	340 to 750	100	500
11954395	4500	Four clear sides	Polystyrene	10	340 to 750	100	500
11944385	4500	Standard/macro	Methacrylate	10	285 to 750	100	500
11904385	1500	Semi-micro	Methacrylate	10	285 to 750	100	500
11924405	4500	Four clear sides	Methacrylate	10	285 to 750	100	500

## Cylinders, measuring, borosilicate glass, Class B, spouted

- Graduated in blue ceramic markings
- Hexagonal base
- Individual reorder code on each item
- DIN 12680 BS 604 ISO 4788
- Pouring spout

fisherbrand



Cat. No	Volume, mL	Graduations, mL	Pack qty
11507702	5	0.1	2
11517702	10	0.2	2
11527702	25	0.5	2
11537702	50	1.0	2
11547702	100	1.0	2
11557702	250	2.0	2
11567702	500	5.0	2
11577702	1000	10	2
11587702	2000	20	1

## Cylinders, borosilicate glass, squat form, spouted, Class B

- Graduated in blue ceramic markings
- Hexagonal base
- Individual reorder code on each item
- DIN 12680 BS 604 ISO 4788

fisherbrand



Cat. No	Volume, mL	Graduations, mL	Pack qty
11902158	10	1.0	2
11912158	25	1.0	2
11922158	50	2.0	2
11932158	100	2.0	2
11942158	250	5.0	2
11952158	500	10	2
11962158	1000	20	2

## Cylinders, borosilicate glass, spouted, left handed, Class B

- Graduated in blue ceramic markings
- Hexagonal base
- Individual reorder code on each item
- DIN 12680 BS 604 ISO 4788
- With blue polypropylene stopper

fisherbrand



Cat. No	Volume, mL	Graduations, mL	Pack qty
11972158	10	0.2	2
11982158	25	0.5	2
11992158	50	1.0	2
11902168	100	1.0	2
11912168	250	2.0	2

## Cylinders, Nessler

- Manufactured from borosilicate glass
- Nessler cylinders have a completely flat base

fisherbrand



Cat. No	Volume, mL	Pack qty
11922168	50	2
11932168	100	2

## Cylinders, PPCO and PMP, graduated, with spout

- Large rounded bases ribbed for reinforcement and stability
- Calibrated 'To Contain/To Deliver' at 20°C - meets ASTM laboratory standards
- Chemical, heat and impact resistant makes these cylinders excellent for long term use
- No meniscus to confuse readings - eliminates guesswork



Cat. No	Volume, mL	Pack qty
Cylinders, PPCO		
11947884	10	12
11957884	25	12
11967884	50	12
11977874	100	8
11907884	250	8
11967874	500	6
11937874	1000	4
11927874	2000	2
Cylinders, PMP		
11907894	25	18
11917894	50	18
11977884	100	12
11917884	500	8
11977874	1000	6
11947874	2000	4

## Flasks, borosilicate glass, conical, wide neck

- Erlenmeyer, graduated

fisherbrand



Cat. No	Volume, mL	Height, mm	Widest OD, mm	Neck OD, mm	Pack qty
15489103	50	85	51	34	10
15499103	100	105	64	34	10
15409113	250	140	85	50	10
15419103	250	145	85	34	10
15419113	300	156	87	50	10
15429113	500	175	105	50	10
15466133	1000	220	131	50	10

## Flasks, borosilicate glass, conical, narrow neck, ISO 1773

- Erlenmeyer, graduated

*fisherbrand*



Cat. No	Volume, mL	Height, mm	Widest OD, mm	Neck OD, mm	Pack qty
15499093	50	90	51	22	10
15409103	200	135	79	34	10
15429103	300	160	87	34	10
15439103	500	180	105	34	10
15449103	1000	220	131	42	10
15459103	2000	280	166	50	1
15469103	3000	310	187	50	1
15479103	5000	365	220	50	1

## Flasks, Erlenmeyer, borosilicate glass, *fisherbrand* fluted narrow neck

- Fluted, with four indents down the length of the wall to significantly increase the oxygen intake in the flask



Cat. No	Volume, mL	Height, mm	Widest OD, mm	Neck OD, mm	Pack qty
11532283	250	140	85	30	1
11542283	500	180	105	30	1
11552283	1000	225	130	34	1
11562283	2000	280	165	41	1

## Flasks, filter, borosilicate glass, heavy duty

*fisherbrand*

- With side arm
- Also with heavier walls than standard Erlenmeyer flasks
- Designed to take 1 atmosphere of vacuum (677mbar)
- Sizes 125mL to 500mL have side hose connection designed to accept 7.8mm I.D. flexible tubing
- Sizes 1000mL and larger accept 9.6mm I.D. tubing



Cat. No	Capacity, mL	Height, mm	Stopper size	Internal diameter, mm	Pack qty
15426153	250	163	6	83	6
15436153	500	190	7	104	6
15446153	1000	238	8	135	6
15456153	2000	300	11	168	1
15466153	4000	380	12	208	1

## Flasks, Erlenmeyer, borosilicate glass 3.3, narrow neck, heavy duty

- Borosilicate glass, graduated
- Reinforced top tooled with a rounded finish
- White ceramic enamel marking spot

*fisherbrand*



Cat. No	Volume, mL	Height, mm	Widest OD, mm	Stopper size	Pack qty
15476133	25	65	39	0	12
15496133	50	78	50	1	12
15406143	125	108	66	5	12
15426143	250	130	82	7	12
15436143	500	174	102	7	6
15446143	1000	213	128	9	6
15456143	2000	275	161	10	4
15466143	4000	355	208	10	1
15439113	6000	395	241	10	1

## Flasks volumetric, borosilicate Class A certified

*fisherbrand*

- ISO 1042, DIN 12664
- One mark graduation
- Interchangeable polyethylene stopper
- Details on each flask include confirmation of compliance to International Standards as well as an individual reorder code
- Batch certificate available



Cat. No	Volume, mL	Tolerance, mL	Stopper dia., mm	Neck O.D., mm	Pack qty
Flasks, clear, white markings					
11576923	5	0.03	10/19	13	5
11586923	10	0.03	10/19	13	5
11596923	20	0.04	10/19	13	5
11506933	25	0.04	10/19	13	5
11516933	50	0.06	14/23	15	5
11526933	100	0.10	12/21	15	5
11536933	200	0.15	14/23	17	2
11546933	250	0.15	14/23	17	2
11556933	500	0.25	19/26	22	2
11566933	1000	0.40	24/29	28	2
11576933	2000	0.60	29/32	28	1
Flasks, amber, white markings					
11379433	10	0.025	10/19	13	5
11389433	20	0.04	10/19	13	5
11399433	25	0.04	10/19	13	5
11309443	50	0.06	12/21	15	5
11319443	100	0.08	12/21	15	5
11329443	200	0.10	14/23	17	2
11339443	250	0.12	14/23	17	2
11349443	500	0.20	19/24	22	2
11359443	1000	0.30	24/29	28	2

## Flasks, Erlenmeyer, borosilicate glass 3.3, wide neck, heavy duty

- Borosilicate glass, graduated
- Heavy duty tooled top
- Graduations measure approximate volumes
- Matte-finish ceramic marking spot takes writing and erases easily
- High resistance to heat, chemical attack, and mechanical shock

*fisherbrand*



Cat. No	Volume, mL	Height, mm	Widest OD, mm	Stopper size	Pack qty
15486143	125	108	66	6	12
15496143	250	130	77	8	12
15406153	500	172	97	10	6
15416153	1000	216	122	11	6



## Flasks, shaker, polycarbonate

*fisherbrand*

- For suspension cultures, media preparation or storage
- Moulded in graduations
- Polycarbonate with polypropylene closure; vented closure has 0.22µm pore PTFE
- Sterile, non-pyrogenic and non-cytotoxic
- Certified sterile at 10<sup>-6</sup> SAL USP Class VI (5 year shelf life)
- For single use; individually packed for easy storage and handling
- Available with plain bottom for use on bench top, or baffled bottom for shaker table use
- Flask and non-vented closures are autoclavable



Cat. No	Capacity, mL	Height, mm	Diameter, mm	Internal neck diameter, mm	Style	Pack qty
<b>Plain bottomed flask</b>						
<b>11735373</b>	125	113	66	26	Vented	24
<b>11765253</b>	250	137	83	26	Vented	12
<b>11725263</b>	500	178	102	38	Vented	12
<b>11755253</b>	1000	224	130	36	Vented	6
<b>11775263</b>	2000	274	162	36	Vented	4
<b>11765373</b>	2800	239	203	61	Vented	4
<b>11735263</b>	125	113	66	26	Non-vented	24
<b>11725253</b>	250	137	83	26	Non-vented	12
<b>11785253</b>	500	178	102	38	Non-vented	12
<b>11705253</b>	1000	224	130	36	Non-vented	6
<b>Baffled bottomed flask</b>						
<b>11755263</b>	125	113	66	26	Vented	24
<b>11735253</b>	250	137	83	26	Vented	12
<b>11705263</b>	500	178	102	38	Vented	12
<b>11715253</b>	1000	224	130	36	Vented	6
<b>11725373</b>	2000	274	162	36	Vented	4

## Funnels, borosilicate glass, conical

*fisherbrand*

- Plain glass funnel manufactured from borosilicate glass
- Ideal for funneling liquids



Cat. No	Top diameter, mm	Stem length, mm	Stem outer diameter, mm	Pack qty
<b>11572423</b>	55	60	8	10
<b>11582423</b>	75	80	9	10
<b>11592423</b>	100	110	12	10
<b>11502433</b>	155	150	19	1
<b>11512433</b>	215	180	24	1

## Funnels, borosilicate glass, conical, powder

*fisherbrand*

- Manufactured from borosilicate glass
- Wide bore short stem
- Less likely to clog or cake when funneling powdery substances



Cat. No	Top diameter, mm	Stem length, mm	Stem outer diameter, mm	Pack qty
<b>12983591</b>	55	20	13	1
<b>12993591</b>	75	25	16	1
<b>12903601</b>	100	30	22	1

## Funnels, borosilicate glass, conical, short stem

*fisherbrand*

- Manufactured from borosilicate glass
- These short stem funnels are less likely to clog when funneling thicker substances
- Ideal for filtering applications



Cat. No	Top diameter, mm	Stem length, mm	Stem outer diameter, mm	Pack qty
<b>10710105</b>	30	35	6	10
<b>10042222</b>	35	40	7	10
<b>10720295</b>	45	50	7	10
<b>10730295</b>	50	55	7	10
<b>10124352</b>	55	60	8	10
<b>10134352</b>	60	65	8	10
<b>10082242</b>	75	80	9	10
<b>10767414</b>	80	85	9	10
<b>10123682</b>	100	110	12	10
<b>10082252</b>	120	120	17	10

## Funnels, borosilicate glass, conical, sintered, filter

*fisherbrand*

- Funnels constructed of borosilicate glass.
- Funnel filters constructed of sintered glass
- Filters medium precipitates with grade 3 and grade 4 porosity



Cat. No	Volume, mL	Porosity	Disc diameter, mm	Pack qty
<b>11902148</b>	35	3	30	1
<b>11912148</b>	35	4	30	1
<b>11922148</b>	80	3	40	1
<b>11932148</b>	80	4	40	1
<b>11942148</b>	125	3	65	1
<b>11952148</b>	125	4	65	1
<b>11962148</b>	500	3	95	1

## Funnels, borosilicate glass, separating, conical, glass or PTFE stopcocks, ISO 4800

*fisherbrand*

- Manufactured from borosilicate glass and complies with ISO 4800 standards
- Available with interchangeable glass or PTFE stopcock
- All are supplied with a glass and plastic stopper



Cat. No	Volume, mL	Stopper size	Pack qty
<b>PTFE stopcock, interchangeable</b>			
<b>11562782</b>	50	19/26	1
<b>11572782</b>	100	19/26	1
<b>11582782</b>	250	24/29	1
<b>11592782</b>	500	24/29	1
<b>11502792</b>	1000	29/32	1
<b>Glass stopcock, interchangeable</b>			
<b>11942128</b>	50	19/26	1
<b>11952128</b>	100	19/26	1
<b>11962128</b>	250	24/29	1
<b>11972128</b>	500	24/29	1
<b>11982128</b>	1000	29/32	1

## Funnels, borosilicate glass, separating, pear-shaped, ISO 4800

fisherbrand

- Constructed from chemically resistant borosilicate glass
- ISO 4800 certified
- Separates mixtures into immiscible solvents
- Available with interchangeable glass or PTFE stopcock
- All supplied with a glass and plastic stopper
- Easy-open stopper helps to reduce pressure buildup during processing



Cat. No	Capacity, mL	Stopper size	Pack qty
Glass stopcock, interchangeable			
11992128	50	19/26	1
11902138	100	19/26	1
11912138	250	24/29	1
11922138	500	24/29	1
11932138	1000	29/32	1
PTFE stopcock, interchangeable			
11942138	50	19/26	1
11952138	100	19/26	1
11962138	250	24/29	1
11972138	500	24/29	1
11982138	1000	29/32	1

## Funnels, polypropylene

fisherbrand

- Autoclavable
- Suitable for general laboratory use
- Durable replacements for glass funnels



Cat. No	Capacity, mL	Top diameter, mm	Stem diam. x L, mm	Pack qty
Analytical funnel				
11947914	12	34	6 x 52	36
11957914	23	48	7 x 50	36
11967914	37	55	7 x 61	36
11977914	50	66	7 x 65	36
11987914	100	77	7 x 80	36
11977904	150	104	9 x 99	24
11987904	225	158	14 x 151	24
Powder funnel				
11997914	50	65	16 x 22	36
11907924	100	79	16 x 29	36
11997904	225	104	21 x 33	24
11907914	750	147	27 x 30	24
Utility funnel				
11997934	40	68	14 x 21	72
11907944	100	87	13 x 22	72
11917944	140	109	18 x 37	72
11927944	210	127	19 x 46	72
11917914	410	160	48 x 66	24
11997884	500	203	19.8 x 45.5	12

## Funnels, PTFE, conical

fisherbrand

- Chemically inert with super smooth, non-stick internal finish



Cat. No	Top diameter, mm	Stem length, mm	Stem O.D., mm	Pack qty
10232242	33	30	10	1
10314032	52	52	16	1
10189951	79	63	18	1
10140002	104	79	22	1
10620463	158	84	24	1

## Jerrycans, narrow neck

fisherbrand

- Integrally moulded handle and tamper evident screw cap



Cat. No	Capacity, L	Height, mm	Neck O.D., mm	Neck I.D., mm	Pack qty
11597433	1.0	165	38	125	1
11507443	2.5	205	45	150	1
11517443	5.0	282	38	189	1
11527443	10	314	61	230	1
11537443	25	470	61	295	1

## Joint sleeves, for glassware, PTFE thin-wall

fisherbrand

- These PTFE sleeves are inserted between standard ground glass joints to eliminate the use of grease and prevent sticking
- Sleeves available for a range of different joint sizes
- Self-release seal to prevent sticking
- Operates at medium to low vacuum
- Use up to 280°C (540°F)
- Eliminates the need for grease
- Wall thickness of 0.05mm
- Sleeves are inert



Cat. No	Joint size	Pack qty
11703219	12/21	10
11773219	14/23	10
11783219	19/26	10
11793219	24/29	10
11703229	29/32	10
11713229	34/35	10
11723229	40/38	10

## Microplates, 96 well polystyrene, non-sterile

*fisherbrand*

- Quality 96 well standard microplates
- Range of well shape styles
- Ideal for antibiotic screens, cell-based assays and screening compounds



Cat. No	Well volume, µL	Colour	Sterile	Well Shape	Material	Well number	Pack qty
<b>13575480</b>	250	Clear	No	Round	PS	96	180
<b>11987944</b>	300	Clear	No	Round	PS	96	80
<b>11997944</b>	400	Clear	No	Flat	PS	96	80
<b>13525440</b>	400	White	No	Flat	PS	96	180
<b>13535440</b>	400	Black	No	Flat	PS	96	180

## Microplates, 96 well, polypropylene, storage

*fisherbrand*

- Resistant to most reagents
- Withstand temperatures from -80°C to 121°C making these plates ideal for storage
- Round bottom wells for optimal sample recovery
- Come in a variety of colours for quick identification during storage



Cat. No	Well volume, µL	Colour	Sterile	Well shape	Material	Well number	Pack qty
<b>11907954</b>	500	Natural	No	Round	PP	96	80
<b>11917954</b>	500	Red	No	Round	PP	96	80
<b>11927954</b>	500	Yellow	No	Round	PP	96	80
<b>11937954</b>	500	Blue	No	Round	PP	96	80
<b>13505450</b>	500	Natural	Yes	Round	PP	96	120
<b>11381555</b>	1000	Natural	No	Round	PP	96	50
<b>13515450</b>	1000	Natural	Yes	Round	PP	96	50
<b>13535450</b>	2000	Natural	No	Square	PP	96	60
<b>13545450</b>	2000	Natural	Yes	Round	PP	96	60

## Microplates, polypropylene, storage, deep 96 well

*fisherbrand*

- Applications include sample storage for SPE, HPLC, MS, liquid handling, automation, robotics
- Unique, patented sealing cap allows penetration of a needle through the cap into each well, minimising coring of the needle as the base of each well of the cap has been reduced in thickness
- Manufactured from inert polypropylene for heat and solvent resistance
- Conical well base aids sample concentration, reconstitution and centrifugation
- Radius on all corners to prevent sample precipitation and improve concentration
- DNase and RNase free



Cat. No	Well volume, µL	Well shape	Pack qty
<b>12439307</b>	350	Square	50
<b>12449307</b>	1000	Square	50
<b>11511963</b>	2000	Square	50
<b>Accessory</b>			
<b>12419307</b>	Pierceable sealing cap (EVA), square well, non-autoclavable		50

## Microplates, 384 well polystyrene

*fisherbrand*

- Process four times as many of your samples as standard 96-well plates
- Optimised for robotic instruments, plate readers and liquid handling systems
- Highly specified polystyrene
- Ideal for low-volume assays such as colorimetric, enzymatic, cloning, replication, and array, as well as storage
- Working volume: 10 to 100µL
- 384-well microplates conserve samples and reagents, providing cost savings and greater screening productivity
- Untreated surfaces
- Non-sterile



Cat. No	Well volume, µL	Material	Well number	Colour	Well shape	Sterile	Pack qty
<b>11947954</b>	120	PS	384	Clear	Round	N	90
<b>13545440</b>	120	PS	384	White	Round	N	100
<b>13555440</b>	120	PS	384	Black	Round	N	100
<b>13565440</b>	120	PS	384	Clear	Triangular	N	100

## Microplates, 384 well polypropylene

*fisherbrand*

Feature higher well density for economical use of expensive reagents.

- Ideal for storage of compounds and nucleic acid libraries
- Chemical resistant
- Withstand temperatures from -80° to +80°C (-112° to +176°F)
- Conform to ANSI™ standard footprint for optimal use in automated handling and liquid-dispensing systems



Cat. No	Well volume, µL	Colour	Sterile	Well number	Well shape	Pack qty
<b>11957954</b>	120	Natural	No	384	Round	120
<b>11967954</b>	120	Red	No	384	Round	120
<b>11977954</b>	120	Yellow	No	384	Round	120
<b>11987954</b>	120	Blue	No	384	Round	120

## Microplates, 384 shallow well, polypropylene

*fisherbrand*

- Features a shared-wall design which permits increased well volume
- Automation compatible, ANSI standard
- Low-binding and chemically resistant surface
- Natural plates for storage or colorimetric assays
- White plates for luminescent assays, including SPA
- Black plates for fluorescent assays
- Round bottom wells for optimal sample recovery
- Rounded square wells minimise wicking (capillary action)
- Lids not included
- Ideal for small volume applications



Cat. No	Well volume, µL	Colour	Well shape	Sterile	Material	Application	Pack qty
<b>13575450</b>	35 to 58	Natural	Round	Yes	Polypropylene	Storage or colorimetric assays	100
<b>13565450</b>	35 to 120	Natural	Round	No	Polypropylene	Storage or colorimetric assays	100
<b>13595450</b>	35 to 120	Black	Round	No	Polypropylene	Fluorescent assays	100
<b>13585450</b>	35 to 120	White	Round	No	Polypropylene	Luminescent assays	100

## Microplates, 384 deep well, polypropylene

fisherbrand

- Deeper wells for storage of more sample
- Working volume range: 5 to 240µL/well
- Excellent for storing DMSO and other strong chemicals and solvents
- Ideal for compound library storage
- Well shape maximises sample retrieval
- Compatible with robotics and automation
- Rounded square wells minimise wicking (capillary action)
- Sealable with chemical-resistant well cap mats



Cat. No	Well volume, µL	Colour	Well shape	Sterile	Well number	Application	Pack qty
13555450	250	Natural	Square	No	384	For storage of compounds and nucleic acid libraries	60

## Petri dishes, polystyrene

fisherbrand

- Quality, general purpose Petri dishes for routine microbiological work
- Range of sizes and vented or non-vented options
- Dishes by aseptic production: the melting temperature of the raw material used during their manufacture is approximately 250°C. This is considered to be sufficient to destroy bacteria. The dishes are then packed under very strict aseptic conditions
- Dishes sterilised by irradiation: sterilised petri dishes are recommended for most microbiological tests. A yellow label is affixed to each case that turns red after sterilisation



Cat. No	Description	Height, mm	Diameter, mm	Pack qty
<b>Aseptic production</b>				
12694785	Triple vent	14.2	90	600
12644785	No vent	16.2	90	600
12654785	Single vent	16.2	90	600
12664785	Triple vent	16.2	90	600
<b>Sterile by irradiation, with peelable sterilisation certificate</b>				
12604795	Triple vent	14.2	90	600
12674785	Single vent	16.2	90	600
12684785	Triple vent	16.2	90	600

## Lid for 96/384 well polystyrene plates fisherbrand

- Protect samples from contamination and evaporation during assay processing, incubation or storage



Cat. No	Colour	Format	Sterile	Material	For use with	Pack qty
11927964	Clear	Microplate lid	No	Polystyrene	96/384 well standard microplates	180

You may also be interested in our **tally counters and Counter-Pen™** on page 69 and also **Fisher BioReagents agar** on page 117



## Microplates, 1536 well polystyrene fisherbrand

Engineered for high throughput screening, allowing end users to screen four times as many samples in one plate

- Optimised for robotic instruments, plate readers and liquid handling systems
- Highly specified polystyrene
- Available in black, white and clear
- Low plate height optimised for stacking efficiency
- Working volume range: 1–10µL/well
- Untreated
- Non-sterile
- Lids sold separately



Cat. No	Well volume, µL	Material	Well number	Colour	Well shape	Sterile	Pack qty
13575440	13.4	PS	1536	Clear	Flat	N	100
13585440	13.4	PS	1536	Black	Flat	N	100
13595440	13.4	PS	1536	White	Flat	N	100

## Syringes, plastic disposable

fisherbrand

- Plastic disposable syringes for general laboratory use
- Graduated
- Range of capacities available
- Luer-lock or Luer-slip fittings



Cat. No	Capacity, mL	Product type	Pack qty
12981021	2	Luer-Lock	100
12901031	5	Luer-Lock	100
12921031	10	Luer-Lock	100
12941031	20	Luer-Lock	100
12991021	2	Luer-Slip	100
12911031	5	Luer-Slip	100
12931031	10	Luer-Slip	100
12951031	20	Luer-Slip	100

## Test tubes, borosilicate glass, medium wall

- Borosilicate glass test tubes, grade 3.3
- All ISO 4142

fisherbrand



Cat. No	Length, mm	Diameter (external), mm	Wall thickness, mm	Pack qty
<b>Rimmed</b>				
11932198	75	10	1.0	100
11942198	75	12	1.0	100
11952198	100	12	1.0	100
11962198	100	16	1.2	100
11972198	125	16	1.2	100
11982198	150	18	1.2	100
11992198	150	24	1.2	100
11982178	150	18	1.2	50
<b>Rimless</b>				
11912208	75	10	1.0	100
11922208	75	12	1.0	100
11932208	100	12	1.0	100
11942208	100	16	1.2	100
11952208	125	16	1.2	100
12088099	150	16	1.2	100
11972208	150	18	1.2	100
11992178	150	24	1.2	50

## Test tubes, borosilicate glass, light walled, rimless

- Premium quality tubes with sturdy, uniform bottoms and consistent lengths
- The 10mm x 75mm and 12mm x 75mm sizes are suitable for cell washing procedures
- The 6mm x 50mm size is often referred to as a 'Durham tube'
- Approximate wall thickness is 0.6mm
- 10022253\* is manufactured from flint glass

fisherbrand



Cat. No	Length, mm	Diameter (external), mm	Pack qty
10022253*	50	6	1000
12347279	75	10	1000
11517403	75	12	1000
11527403	100	13	1000
11537403	85	15	1000
11547403	100	16	1000
11557403	125	16	1000
11577403	150	16	1000
11587403	150	18	500
11597403	150	20	500
11507413	150	25	500

## Test tubes, borosilicate glass, round bottom, screw thread without cap

fisherbrand

- Ideal for tissue culture, bacteriology, clinical chemistry, blood typing and cross matching procedures
- Available with or without marking spot
- Tubes packed in shrink wrapped trays



Cat. No	Length, mm	GPI thread finish	Diameter (external), mm	Pack qty
<b>With marking spot</b>				
11587413	100	13-415	13	1000
12327279	100	15-415	16	1000
11527423	125	15-415	16	1000
11537423	150	15-415	16	1000
11547423	125	18-415	20	500
11557423	150	18-415	20	500
<b>Without marking spot</b>				
11567423	100	13-415	13	1000
11577423	150	15-415	16	1000
11587423	150	18-415	20	500

## Test tubes, borosilicate glass, round bottom, screw thread with PP caps

fisherbrand

- Ideal for tissue culture, bacteriology, clinical chemistry, blood typing and cross matching procedures
- With natural, linerless, polypropylene screw cap and marking spot
- Tubes packed in shrink wrapped trays with caps packed separately



Cat. No	Length, mm	GPI thread finish	Diameter (external), mm	Pack qty
11517413	100	13-415	13	1000
11527413	100	15-415	16	1000
10421541	125	15-415	16	1000
11557413	150	15-415	16	1000
11567413	125	18-415	20	500
11577413	150	18-415	20	500

## Test tubes, soda lime glass

fisherbrand

- Soda lime glass test tubes
- All ISO 4142 (except 11912218, 11922218 and 11932218)



Cat. No	Length, mm	Diameter (external), mm	Wall thickness, mm	Pack qty
<b>Light walled, rimmed</b>				
11922188	75	10	0.60	100
11932188	75	12	0.60	100
11942188	100	12	0.60	100
11952188	125	16	0.60	100
11962188	150	16	0.60	100
11972188	150	18	0.80	100
11962178	150	24	1.0	50
<b>Light walled, rimless</b>				
11912218	30	6.5	0.65	300
11922218	35	8.0	0.65	300
11932218	50	7.5	0.65	1000
<b>Medium walled, rimless</b>				
11982188	75	10	1.0	100
11992188	75	12	1.0	100
12961031	100	12	1.0	100
11902198	125	16	1.0	100
11912198	150	16	1.0	100
11922198	150	18	1.0	100
11972178	150	24	1.2	50



## Caps, phenolic, rubber liner, for screw thread test tubes *fisherbrand*

- Made of a special phenolic material (wood filled) and very resistant to the effects of temperature and steam encountered in autoclaving
- A cemented-in rubber liner is provided, and the cement used has been selected to retain its adhesive properties during autoclaving



Cat. No	GPI thread finish	Pack qty
<b>11547133</b>	13-415	1000
<b>12337279</b>	15-415	1000
<b>11567133</b>	18-415	1000

## Caps, polypropylene, linerless, for screw thread test tubes *fisherbrand*

- One-piece construction with a unique inner sealing ring



Cat. No	GPI thread finish	Pack qty
<b>11577133</b>	13-415	1000
<b>11587133</b>	15-415	1000
<b>11597133</b>	18-415	500

## Caps, polypropylene, welded PTFE/silicone liner, for screw thread test tubes *fisherbrand*

- Ideal for repeated autoclaving
- The welded liner eliminates glue contamination



Cat. No	GPI thread finish	Pack qty
<b>11522672</b>	13-415	288
<b>11532672</b>	15-415	288
<b>11542672</b>	18-415	288

## Test tube racks, POM or PP, full and half size *fisherbrand*

- Available in durable fibreglass reinforced polyoxymethylene (POM) or polypropylene
- POM is tough and more highly resistant to acids, solvents and heat (-40 to +140°C)
- Available in half and full sizes for five different tube diameters
- Autoclavable



Cat. No	Tubes	Wells	Well diameter, mm	l x w x h, mm	Colour	Pack qty
<b>POM full size</b>						
<b>15340380</b>	5 to 10mL	72	13	104 x 202 x 59	White	1
<b>15390380</b>	5 to 10mL	72	16	127 x 250 x 70	White	1
<b>15340390</b>	10 to 18mL	40	20	100 x 252 x 83	White	1
<b>15370390</b>	10 to 18mL	40	25	120 x 300 x 92	White	1
<b>15310400</b>	15 to 50mL	24	30	110 x 282 x 85	White	1
<b>15350380</b>	5 to 10mL	72	13	104 x 202 x 59	Blue	1
<b>15300390</b>	5 to 10mL	72	16	127 x 250 x 70	Blue	1
<b>12327629</b>	5 to 30mL	40	20	100 x 252 x 83	Blue	1
<b>15380390</b>	5 to 30mL	40	25	120 x 300 x 92	Blue	1
<b>10257963</b>	15 to 50mL	24	30	110 x 282 x 85	Blue	1
<b>15360380</b>	5 to 10mL	72	13	104 x 202 x 59	Green	1
<b>15310390</b>	5 to 10mL	72	16	127 x 250 x 70	Green	1
<b>15350390</b>	10 to 18mL	40	20	100 x 252 x 83	Green	1
<b>15390390</b>	10 to 18mL	40	25	120 x 300 x 92	Green	1
<b>15330400</b>	15 to 50mL	24	30	110 x 282 x 85	Green	1
<b>15370380</b>	5 to 10mL	72	13	104 x 202 x 59	Magenta	1
<b>15320390</b>	5 to 10mL	72	16	127 x 250 x 70	Magenta	1
<b>15360390</b>	10 to 18mL	40	20	100 x 252 x 83	Magenta	1
<b>15300400</b>	10 to 18mL	40	25	120 x 300 x 92	Magenta	1
<b>15350400</b>	15 to 50mL	24	30	110 x 282 x 85	Magenta	1
<b>15380380</b>	5 to 10mL	72	13	104 x 202 x 59	Yellow	1
<b>15330390</b>	5 to 10mL	72	16	127 x 250 x 70	Yellow	1
<b>15360400</b>	15 to 50mL	24	30	110 x 282 x 85	Yellow	1
<b>POM half size</b>						
<b>15390400</b>	5 to 10mL	36	13	104 x 104 x 59	White	1
<b>15340410</b>	5 to 10mL	36	16	127 x 127 x 70	White	1
<b>15310420</b>	10 to 18mL	20	20	100 x 127 x 83	White	1
<b>15380420</b>	10 to 18mL	16	25	120 x 122 x 92	White	1
<b>15330430</b>	15 to 50mL	9	30	110 x 110 x 85	White	1
<b>15300410</b>	5 to 10mL	36	13	104 x 104 x 59	Blue	1
<b>15360410</b>	5 to 10mL	36	16	127 x 127 x 70	Blue	1
<b>15340420</b>	10 to 18mL	20	20	100 x 127 x 83	Blue	1
<b>15300430</b>	10 to 18mL	16	25	120 x 122 x 92	Blue	1
<b>12317629</b>	15 to 50mL	9	30	110 x 110 x 85	Blue	1
<b>15310410</b>	5 to 10mL	36	13	104 x 104 x 59	Green	1
<b>15380410</b>	5 to 10mL	36	16	127 x 127 x 70	Green	1
<b>15350420</b>	10 to 18mL	20	20	100 x 127 x 83	Green	1
<b>15310430</b>	10 to 18mL	16	25	120 x 122 x 92	Green	1
<b>15340430</b>	15 to 50mL	9	30	110 x 110 x 85	Green	1
<b>15330410</b>	5 to 10mL	36	13	104 x 104 x 59	Magenta	1
<b>15390410</b>	5 to 10mL	36	16	127 x 127 x 70	Magenta	1
<b>15370420</b>	10 to 18mL	20	20	100 x 127 x 83	Magenta	1
<b>15320430</b>	10 to 18mL	16	25	120 x 122 x 92	Magenta	1
<b>15360430</b>	15 to 50mL	9	30	110 x 110 x 85	Magenta	1
<b>Polypropylene full size</b>						
<b>15370430</b>	5 to 10mL	72	13	104 x 202 x 59	White	8
<b>15310440</b>	5 to 10mL	72	16	127 x 250 x 70	White	8
<b>15380430</b>	5 to 10mL	72	13	104 x 202 x 59	Blue	8
<b>15320440</b>	5 to 10mL	72	16	127 x 250 x 70	Blue	8
<b>15390430</b>	5 to 10mL	72	13	104 x 202 x 59	Green	8
<b>15340440</b>	5 to 10mL	72	16	127 x 250 x 70	Green	8
<b>15300440</b>	5 to 10mL	72	13	104 x 202 x 59	Magenta	8
<b>15360440</b>	5 to 10mL	72	16	127 x 250 x 70	Magenta	8

## Tube racks, Mega Rack™

*fisherbrand*

- Mega Racks™ are great in clinical labs for storage of large groupings of samples enabling you to place different test groupings together in one rack
- Made from sturdy, lightweight material for easy transport
- Include an alphanumeric grid for quick location and retrieval of tubes
- Available in two sizes to fit standard 10 to 13mm or 13 to 16mm tubes



Cat. No	Tube size	Colour	Description	Well number	Pack qty
<b>11720634</b>	10 to 13mm	Blue	Single	216	1
<b>11730634</b>	13 to 16mm	Blue	Single	120	1

## Vials, specimen, glass, supplied with push-in caps

*fisherbrand*

- Type III clear soda lime glass, straight sided, flat bottom, polyethylene supplied with push-in cap



Cat. No	Volume, mL	Height, mm	Diameter, mm	Pack qty
<b>14801582</b>	2	38	10	250
<b>14831582</b>	3	38	12	100
<b>14841582</b>	3	50	10	250
<b>14811582</b>	4	50	12	100
<b>14821582</b>	8	50	19	100
<b>14891582</b>	9	100	12	100
<b>14861582</b>	10	75	16	100
<b>14871582</b>	13.5	75	19	100
<b>14851582</b>	16	50	25	100
<b>14881582</b>	25	75	25	100
<b>14801592</b>	35	100	25	100

## Vials, specimen, glass, rolled-rim, suitable for snap-on or push-in caps

*fisherbrand*

- Manufactured from high quality Type 1B neutral glass
- Versatile capacity range from 7mL to 30mL
- Particularly suitable for the storage of powders and 'dry' samples



Cat. No	Volume, mL	Height, mm	Diameter, mm	Cap size, mm	Pack qty
<b>15364769</b>	7	34	23	22	190
<b>15374769</b>	10.5	46	23	22	190
<b>15384769</b>	14	48	23	22	162
<b>15394769</b>	21	66	23	22	162
<b>15304779</b>	28	72	27	22	140
Caps, natural polyethylene					
Cat. No	Description	Cap size, mm	Pack qty		
<b>15344789</b>	Snap-on cap	22	300		
<b>15354789</b>	Push-in cap	22	300		

## Vials, specimen, glass

*fisherbrand*

Manufactured from clear Type 1B neutral glass

- Suitable for media, diagnostic, storage, display and sample collection applications
- For use with push-in caps



Cat. No	Volume, mL	Cap size, mm	Height x diam., mm	Pack qty
<b>15314779</b>	1.75	8	36 x 11	882
<b>15324779</b>	3.5	8	46 x 12	666
<b>15334779</b>	7	10	58 x 17	399
Caps, polyethylene push in, natural				
Cat. No	Material/liner	Cap size, mm	Pack qty	
<b>15364789</b>	Polyethylene	8	300	
<b>15374789</b>	Polyethylene	10	300	

## Vials, specimen, glass, screw neck

*fisherbrand*

Manufactured from clear Type 1B neutral glass

- Squat and tall form options with standard neck sizes
- Suitable for media, diagnostic, storage, display and sample collection applications



Cat. No	Volume, mL	Cap size, mm	Height x diam., mm	Pack qty
Squat form vial				
<b>15344779</b>	7	18	42 x 20	264
<b>15354779</b>	14	22	58 x 23	190
<b>15364779</b>	28	28	72 x 27	140
Tall form vial				
<b>15374779</b>	1.75	10	36 x 11	882
<b>15384779</b>	3.5	10	46 x 12	666
<b>15394779</b>	7.0	15	58 x 17	399
<b>15304789</b>	10.5	15	67 x 17	399
<b>15314789</b>	14	18	72 x 20	264
<b>15324789</b>	21	18	86 x 21	231
<b>15334789</b>	28	22	96 x 23	190
Polypropylene/AFM caps				
<b>15384789</b>	10			300
<b>15394789</b>	15			300
<b>15304799</b>	18			300
<b>15314799</b>	22			300
<b>15324799</b>	28			300

## Vials, clear tubular glass, 7mL bijou and 28mL, universal, with fitted PP screw caps

*fisherbrand*

- Type III clear soda glass vials with screw neck and fitted PP cap



Cat. No	Volume, mL	Height x diam., mm	Neck finish	Tray quantity	Pack qty
<b>14803562</b>	7	43 x 20	18R3	1 x tray 245	245
<b>14813562</b>	7	43 x 20	18R3	7 x trays 245	1715
<b>14823562</b>	28	82 x 27	24R3	1 x tray 125	125
<b>14833562</b>	28	82 x 27	24R3	4 x trays 125	500

## Vials, clear moulded glass with fitted screw caps *fisherbrand*

- Type III soda lime glass
- Polypropylene screw cap
- Clear colour bottle
- Screw thread neck
- Autoclavable



Cat. No	Volume, mL	Height, mm	Diameter, mm	Neck finish	Pack qty
Type I clear neutral glass vials with screw neck and fitted PP cap					
14843562	7	50	22	20R3	288
14863562	28	83	28	28R3	144
Type I clear neutral glass vials with screw neck and fitted aluminium rubber lined caps					
14873562	7	50	22	20R3	20
14853562	7	50	22	20R3	288
14883562	14	65	28	20R3	20
14893562	14	65	28	20R3	288
14803572	28	83	28	28R3	20
14823572	28	83	28	28R3	144

## Vials, neutral glass, clear and amber, Type 1, diagnostic, screwthread *fisherbrand*

- Clear vials manufactured using Type I neutral glass
- Amber vials manufactured using Type I neutral glass that conforms to USP Type 1 requirements for light transmission to protect light sensitive products
- Tubular design provides excellent clarity and dimensional consistency from vial to vial
- Specially designed bottom radius adds strength for freeze drying applications
- Two cap configurations available, PP cap and freeze dry stopper or urea EPE lined cap



Cat. No	Volume, mL	Height, mm	Diameter, mm	Neck diameter, mm	Pack qty
Type I neutral glass vials, clear (caps sold separately)					
14803582	3	36	18	15.5	320
14813582	5	41	18	15.5	320
14823582	10	50	25	22	154
14833582	20	63	28	22	130
14843582	25	63	32	22	99
Type I neutral glass vials, amber (caps sold separately)					
14853582	3	36	18	15.5	320
14863582	5	41	18	15.5	320
14873582	10	50	25	22	154
14883582	20	63	28	22	130
14893582	25	63	32	22	99

## Caps and closures for screw thread diagnostic vials *fisherbrand*

- Freeze dry stoppers are push in (not screw thread)
- Urea EPE lined caps are suitable for most applications
- Freeze dry stoppers demonstrate very low moisture absorption



	Cat. No	Size, mm	Material	Pack qty
1	14803592	15.5	Polypropylene	1000
2	13550970	14	Freeze dry stopper	1000
	14813592	15.5	Urea EPE lined	1000
	14833592	20	Freeze dry stopper	1000
	14843592	22	Urea EPE lined	1000
	14823592	22	Polypropylene	1000

## Vials, sample, clear and amber, Type 1 Class A borosilicate glass, with fitted caps *fisherbrand*

- Supplied in partitioned trays
- Standard vials have fitted black phenolic caps with either polycone liner or PTFE faced white rubber liner
- Also available: pre-cleaned EPA (Environmental Protection Agency) vials for VOA (volatile organic analysis), with or without certification, having fitted white polypropylene open top caps with PTFE faced silicone septa



Cat. No	Volume, mL	Capacity	O.D., mm	Height, mm	GPI thread finish	Pack qty
Clear sample vials with fitted black phenolic polycone lined caps						
11660112	4	1	15	48	13-425	144
11537733	8	2	17	63	15-425	144
11547733	12	3	19	68	15-425	144
11553522	16	4	21	73	18-400	144
11583522	20	5	28	60	24-400	144
11563522	24	6	23	88	20-400	144
11593522	25	6.25	28	73	24-400	72
11573522	30	8	25	94	22-400	144
Clear sample vials with fitted black phenolic PTFE faced rubber lined caps						
11503532	2	0.5	12	38	8-425	288
11523532	4	1	15	48	13-425	144
11543532	8	2	17	63	15-425	144
11563532	12	3	19	68	15-425	144
11573532	16	4	21	73	18-400	144
11513542	20	5	28	60	24-400	72
11583532	24	6	23	88	20-400	144
11533542	25	6.25	28	73	24-400	72
11593532	30	8	25	94	22-400	144
Clear short sample vials with fitted black phenolic PTFE faced rubber lined caps						
11543542	2	0.5	15	31	13-425	200
11553542	4	1	17	41	15-425	200
11563542	6	1.5	19	43	15-425	200
Amber sample vials with fitted black phenolic PTFE faced rubber lined caps						
11573542	2	0.5	12	38	8-425	288
11583542	4	1	15	48	13-425	144
11309493	8	2	17	63	15-425	144
11503552	20	5	28	60	24-400	72
11513552	40	10	28	98	24-400	72
Cat. No	Volume, mL	Capacity, drams	Colour	Height, mm	Pack qty	
Pre-cleaned EPA (Environmental Protection Agency) vials for VOA in both clear and amber, with fitted white polypropylene open top cap and fitted PTFE faced silicone septa. All EPA vials have an outside diameter of 28mm, 24-400 GPI thread finish.						
Without certification						
11553552	40	10	Clear	98	144	
11563552	40	10	Amber	98	144	
With certification						
11583552	40	10	Clear	98	144	
11593552	40	10	Amber	98	144	

## Vials, scintillation borosilicate glass, with caps, 7mL

*fisherbrand*

- Smaller 7mL capacity vial saves in solvent use and disposal
- Potassium-free 33 borosilicate glass provides consistently low activity counts and excellent light transmission
- White caps fit GPI 22-400 thread finish and are suitable for marking
- Packed in five shrink wrapped trays of 200 vials, with five separately packed polybags each containing 200 caps



Cat. No	Cap material	Neck O.D., mm	Height, mm	Pack qty
10523904	Urea	17	54	1000

## Vials, scintillation borosilicate glass, with caps, 20mL

*fisherbrand*

- Potassium-free 33 borosilicate glass provides consistently low activity counts and excellent light transmission
- Fit all common counters
- Caps fit GPI 22-400 thread finish, and are suitable for marking
- Vials with caps attached are shrink-wrapped in five trays of 100 per case
- When caps are separate, vials are shrink-wrapped in five trays of 100 per case, and caps are packed in five polybags of 100 caps each
- Vial dimensions, with cap (O.D. x h): 28mm x 61mm



Cat. No	Cap material	Cap style	Packaging type	Pack qty
12353317	Urea	Cork-backed metal foil liner	Caps attached	500
12363317	Urea	Cork-backed metal foil liner	Caps separate	500
12373317	Urea	Cone-shaped plastic liner	Caps separate	500
12383317	Polypropylene	Pulp-backed metal foil liner	Caps attached	500
12393317	Polypropylene	Pulp-backed metal foil liner	Caps separate	500
12303327	Polypropylene	No liner	Caps separate	500

## Vials, scintillation with caps, HDPE

*fisherbrand*

- High density polyethylene (HDPE) provides low background counts, excellent light transmission and resists leaking and swelling caused by solvent degradation
- 7mL smaller capacity vials require less solvent
- White caps are suitable for marking
- 20mL vials fit all common counters



Cat. No	Volume, mL	Pack type	Cap material	Cap style	GPI thread finish	Pack qty
12371599	7	Caps separate	Polyethylene	No liner	15-425	1000
12644347	7	Caps separate	Polyethylene	No liner	15-425	2000
12321599	20	Caps separate	Urea	Cork backed metal foil liner	22-400	500
12365573	20	Caps separate	Urea	Cone shaped plastic liner	22-400	500
12341599	20	Caps separate	Polypropylene	Pulp backed metal foil liner	22-400	500
12351599	20	Caps attached	Polypropylene	Pulp backed metal foil liner	22-400	500
12361599	20	Bulk	Polypropylene	Pulp backed metal foil liner	22-400	1000

## Washbottles, translucent narrow neck LDPE

*fisherbrand*

- Basic washbottles for general use
- LDPE with one-piece polypropylene screw cap and nozzle
- Tip may be cut back to increase flow



Cat. No	Capacity, mL	Closure colour	Pack qty
11532463	250	Natural	6
11542463	500	Natural	6

## Washbottles, Easy-Squeeze LDPE

*fisherbrand*

- Labelled and colour coded for most commonly used solvents
- Translucent with coloured closure
- Comes with vented 38mm closure to prevent solvent drips
- 500mL capacity



Cat. No	Label type	Closure colour	Pack qty
11765243	Cleaning	Natural	6
11745233	Acetone	Red	6
11755233	Bleach	White	6
11765233	Deionised water	Natural	6
11775233	Distilled water	Natural	6
11785233	Ethanol	Natural	6
11795233	Isopropanol	Yellow	6
11705243	Methanol	Green	6
11715243	Saline	Natural	6
11725243	Soap	Natural	6
11735243	Universal	Natural	6
11745243	Water	Natural	6
11755243	Washbottle assortment, includes acetone, deionised water, ethanol, isopropanol, methanol, all-purpose solution	Assorted	6

## Washbottles, LDPE, round, wide neck, *fisherbrand* solvent-vented and safety labelled

- Labelled and colour coded for some of the most commonly used solvents
- Unique patented two piece venting assembly prevents build up of solvents within the bottle, eliminating solvent drips from the spout due to internal evaporation
- LDPE bottle with polypropylene closures and venting assembly



Cat. No	Label type	Capacity, mL	Closure colour	Pack qty
<b>11567153</b>	Acetone	500	Red	3
<b>11577153</b>	Methanol	500	Green	3
<b>11587153</b>	Isopropanol	500	Yellow	3
<b>11507163</b>	DIY/custom	500	Natural	3

## Washbottles, LDPE, wide neck, *fisherbrand* venting, labelled, Right-to-Know

- Pre-printed with chemical name and formula, NFPA section 704 four colour diamond, health hazard, CAS number and suggested protective clothing and equipment
- Wide neck for easy refilling
- Vented to prevent pressure build up, eliminating solvent drips
- Valve allows solvent to be dispensed in both an upright or inverted position
- Leakproof
- Translucent with colour coded polypropylene closures



Cat. No	Label type	Capacity, mL	Closure colour	Pack qty
<b>12359195</b>	Assorted pack	500	Assorted	6
<b>12369195</b>	Ethanol	500	Natural	6
<b>12309205</b>	Isopropanol	500	Yellow	6
<b>12319205</b>	Methanol	500	Green	6
<b>11938485</b>	Acetone	1000	Red	4

## Washbottles, LDPE, wide neck, safety *fisherbrand* labelled and colour-coded

- Solvent dispensing
- Leakproof dispensing of your most common solvents
- Easy to read LDPE solvent-resistant printed bottles
- Colour coded for easy identification



Cat. No	Label type	Capacity, mL	Closure colour	Pack qty
<b>11562463</b>	Distilled Water	500	Blue	6
<b>11572463</b>	Water	500	Blue	6
<b>11592463</b>	Acetone	500	Red	6
<b>11582463</b>	Acetone	1000	Red	6
<b>11502473</b>	Methanol	500	Green	6
<b>11512473</b>	Isopropanol	500	Yellow	6
<b>11522473</b>	Toluene	500	Red	6
<b>11532473</b>	Deionised water	500	Blue	6

## Wash bottles, adjustable spray *fisherbrand*

- For hot, cold, aqueous, and solvent based solutions
- Set to fine mist for TLC plates, position it to needle to rinse glassware, and pump a continuous, forceful jet on the big stream position for washing filters
- Instant off-trigger release eliminates messy drips
- Chemical-resistant and virtually unbreakable bottles are made of high-density polyethylene (HDPE), spray head made of polypropylene (PP)
- Can be gas or chemically sterilised and cleaned in the laboratory dishwasher
- Zero contamination
- The double headed 1000mL sized bottle has a side fill opening to help maintain purity of solutions



Cat. No	Capacity, mL	Pack qty
<b>11714356</b>	240	3
<b>11795873</b>	1000	1

*fisherbrand*

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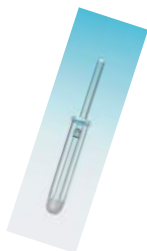
## HOMOGENISATION

Homogenisers are key items of equipment used by many laboratories during the initial stages of sample preparation to break down and disrupt a range of materials such as animal or plant tissue, foodstuffs and soils. Choose from our range of conventional manual glass homogenisers for quick and easy tissue disruption or from our powered hand-held or bench homogenisers, or our sonic dimembrators, for more rapid and consistent sample throughput.

### Homogenisers, borosilicate glass, Dounce

- Designed for fine particle size reductions without damage to cell nuclei. Supplied with two interchangeable pestles
- Pestles are ground and polished for use in same tube. 'Loose' pestle used for sample preparation, 'tight' pestle for final homogenate

*fisherbrand*

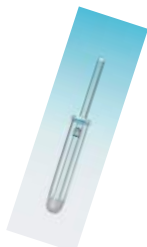


Cat. No	Capacity, mL	Chamber length, mm	Pestle diameter, mm	Pack qty
11562443	1	48	7.5	2
11572443	7	82	13	2
11582443	15	94	15	2
11592443	40	140	25	2

### Homogenisers, borosilicate glass, Griffiths tube

- For grinding bacterial emulsions and tissues, tube 90mm to 95mm, 18mm O.D. narrowing to ground, rounded end
- Ground half spherical pestle and mortar ends ensure perfect grinding

*fisherbrand*



Cat. No	Capacity, mL	Chamber length, mm	Length (max), mm	Pestle diameter, mm	Pack qty
11542443	5	90	150	12	1
With projections for coarse grinding. Mortar length 220mm					
11552443	15	95	305	15	1

### Homogenisers, borosilicate glass, mini

- High quality mini homogenisers ideal for micro tissue work
- Bodies are clear precision glass. Pestles have ground glass working length

*fisherbrand*



Cat. No	Capacity, mL	Chamber length, mm	Pestle diameter, mm	Pack qty
11512443	0.1	31	3.65	1
11522443	1.0	55	5.0	1
11532443	3.0	60	9.0	1

### Homogenisers, borosilicate glass, Safe-Seal™

- Supplied with a PTFE pestle, stainless steel handle and borosilicate glass mortar which is stoppered in PTFE to protect against splash back during the grinding process

*fisherbrand*



Cat. No	Capacity, mL	Chamber length, mm	Pestle diameter, mm	Pack qty
11592453	5	65	10	1
11502463	10	75	13	1
11512463	15	80	15	1
11522463	30	105	19	1

### Bead Mill 4 homogeniser

- Simultaneously process 4 x 0.5 mL, 4 x 1.5mL, 4 x 2mL or 1 x 7mL samples
- Broad performance range from gentle mixing to high force homogenisation
- Small footprint requires minimal bench space
- Suited for homogenising up to four samples in seconds
- Reproducible extraction of proteins and nucleic acids
- Kit includes Bead Mill 4 motor drive, integrated 0.5, 1.5 and 2mL tube carriage, 7mL tube carriage, tool kit, instruction manual
- Designed for research use only
- Warranty: One year

*fisherbrand*



Cat. No	Description	Pack qty
15525799	Bead Mill 4 homogeniser	1

### Bead Mill 24 homogeniser

- Used for variety of applications that require grinding, lysing, and homogenisation of biological samples prior to molecular extraction
- Simultaneously homogenise up to 24 x 2mL or 0.5mL tubes
- More samples can be processed in smaller amount of time
- Convenient front-loading tube holder position for ease of use and optimal bead/sample interactions
- Processing range is ideal for soft tissue samples
- No cool-down required between runs (non-stop processing)
- Disposable tubes ensure no threat of cross-contamination
- No sample degradation due to quick processing
- Smaller footprint to maximise bench space
- Run time 1 to 99 seconds
- Warranty: One year

*fisherbrand*



Cat. No	Description	Pack qty
15515799	Bead Mill 24 homogeniser	1

### Pre-filled bead mill tubes

- For use with Bead Mill 4 and Bead Mill 24 homogenisers

*fisherbrand*



Cat.No	Bead media	Bead size	Tube size	Pack qty
15340153	Ceramic	1.4mm	2mL	50
15340154	Ceramic	2.8mm	2mL	50
15340156	Ceramic	1.4mm	7mL	50
15340157	Ceramic	2.8mm	7mL	50
15340151	Metal	2.4mm	2mL	50
15340155	Metal	2.4mm	7mL	50

## Bulk tubes

- For use with Bead Mill 4 and Bead Mill 24 homogenisers

fisherbrand

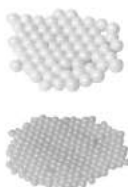


Cat.No	Description	Tube size	Pack qty
15340161	Non-reinforced tubes with caps	2mL	500
15340162	Reinforced tubes with caps	2mL	1000

## Bulk beads

- For use with Bead Mill 4 and Bead Mill 24 homogenisers

fisherbrand



Cat.No	Bead media	Bead size	Tube size	Quantity
15340159	Ceramic	1.4mm	2mL	325g
15340160	Ceramic	2.8mm	2mL	325g
15340160	Metal	2.4mm	2mL	500g

## Fisherbrand Bulk Beads Selection Guide

fisherbrand

- For use with Bead Mill 4 and Bead Mill 24 homogenisers

Sample type	Bead Media		
	Ceramic		Metal
	1.4 mm	2.8 mm	2.4 mm
Soft tissues, brain, liver, kidney	✓	✓	
Hard tissues, heart, muscle, skin		✓	
Plant material		✓	
Dry grinding			✓
Dense biological material, hair, bone, seeds			✓

## Homogeniser, 150 watt, hand-held

fisherbrand

- The Fisherbrand™ 150 watt hand-held homogeniser is a high performance, light weight tissue homogeniser designed to process samples reliably, quickly and efficiently.
- Designed for comfortable hand-held use, but can also be mounted to motor stand for lengthier processing
- Interchangeable quick connect rotor stator generator probes provides flexibility to process samples from 200µL to 100mL
- Stainless steel probes (5mm - 10mm diameter) are designed for long life and are easy to disassemble for cleaning
- Plastic probes virtually eliminate risk of cross contamination and carryover between samples, and can be cleaned for reuse in most cases
- Speed: variable from 5000 to 35000rpm
- Power: 150W max
- Sound: <72dB
- Warranty: One year



Cat. No	Description	Pack qty
15565809	Fisherbrand 150 handheld homogeniser 220V EU cord, 150W, includes stand clamp, two plastic probes and adapter	1
15575809	Fisherbrand 150 handheld homogeniser 220V UK cord, 150W, includes stand clamp, two plastic probes and adapter	1
15585809	Fisherbrand 150 handheld homogeniser package 220V EU cord, 150W, includes stand clamp, stand assembly and 5, 7, 10mm probes	1
15595809	Fisherbrand 150 handheld homogeniser package 220V UK cord, 150W, includes stand clamp, stand assembly and 5, 7, 10mm probes	1

## Accessories

15525819	Stand for 150 homogeniser	1
15545819	Stainless steel probe, 5 x 75mm, compatible with 150 and 850 homogenisers	1
15555819	Stainless steel probe, 7 x 115mm, fine window, compatible with 150 and 850 homogenisers	1
15565819	Stainless steel probe, 7 x 115mm, wide window, compatible with 150 and 850 homogenisers	1
15595819	Stainless steel probe, 10 x 115mm, fine window, compatible with 150 and 850 homogenisers	1
15505829	Stainless steel probe, 10 x 115mm, wide window, compatible with 150 and 850 homogenisers	1
15575819	Plastic generator probes, compatible with 150 homogeniser	25
15585819	Plastic generator probes, compatible with 150 homogeniser	50

## Fisher Chemical - Resolve your Analytical Challenges



The Fisher Chemical product range has a clear and simple grade and application structure, making it easy to meet your analytical challenges:

- Maintaining low contamination levels
- Improving detection limits
- Obtaining accurate, reproducible results

See Fisher Chemical range of products on page 125 to 132

## Homogeniser, 850 watt benchtop

fisherbrand

- The Fisherbrand™ 850 homogeniser is specifically designed to disrupt, emulsify, or homogenise a wide range of sample volumes ranging from 0.2mL up to 10L
- Powerful 850W motor
- Integrated digital speed control, displays speed and run time
- Variable speed control from 5000 to 28000rpm
- Compatible with stainless steel and disposable generator probes
- Warranty: One year



Cat. No	Description	Pack qty
<b>15505819</b>	Fisherbrand 850 homogeniser 220V EU/UK cord, with 850W motor, post clamp and cross rod	1
<b>15515819</b>	Fisherbrand 850 homogeniser 220V EU/UK cord, with 850W motor, post clamp, cross rod and 10, 20, 30mm probes	1
<b>Accessories</b>		
<b>15535819</b>	Stand for 850 homogeniser	1
<b>15545819</b>	Stainless steel probe, 5 x 75mm, compatible with 150 and 850 homogenisers	1
<b>15555819</b>	Stainless steel probe, 7 x 115mm, fine window, compatible with 150 and 850 homogenisers	1
<b>15565819</b>	Stainless steel probe, 7 x 115mm, wide window, compatible with 150 and 850 homogenisers	1
<b>15595819</b>	Stainless steel probe, 10 x 115mm, fine window, compatible with 150 and 850 homogenisers	1
<b>15505829</b>	Stainless steel probe, 10 x 115mm, wide window, compatible with 150 and 850 homogenisers	1
<b>15515829</b>	Stainless steel probe, 20 x 195mm, fine window, compatible with 850 homogeniser	1
<b>15525829</b>	Stainless steel probe, 20 x 195mm, wide window, compatible with 850 homogeniser	1
<b>15535829</b>	Stainless steel probe, 30 x 195mm, fine window, compatible with 850 homogeniser	1
<b>15545829</b>	Stainless steel probe, 30 x 195mm, wide window, compatible with 850 homogeniser	1

## Sonic dismembrators

fisherbrand

Four models available:

- Model 50 Sonic Dismembrator: processes 0.2 to 50mL, 50 watts, continuous or remote operation, (footswitch optional) lightweight converter (340g) for hand-held operation
- Model 120 Sonic Dismembrator: processes 0.2 to 50mL, 120 watts, programmable from 1 second to 10 hours, overload protection, pulse mode (1 to 59 seconds), energy display (watts and Joules), lightweight converter (340g) for hand-held operation
- Model 505 Sonic Dismembrator: processes 0.5 to 500mL, 500 watts, programmable from 1 second to 10 hours, overload protection, pulse mode (1 to 59 seconds), energy display (watts and Joules)
- Model 705 Sonic Dismembrator: processes 0.2 to 1000mL, 700 watts, touch screen display, programmable from 1 second to 99 hours, save up to 10 different programs, overload protection, pulse mode (1 second to 24 hours), energy display (real-time watts and cumulative Joules), temperature monitoring (requires optional temperature probe), full amplitude control from 1 to 100%
- Applications include: cell disruption, homogenisation, DNA shearing, nanoparticle dispersion, protein extraction, sonochemistry, soil extraction, mixing
- Warranty: Two year



Cat. No	Description	Pack qty
<b>12961151</b>	Model 50: includes generator, converter, 3mm probe, cables, wrench set, manual, 230V, 50/60Hz, 203mm x 190mm x 152mm (w x l x h)	1
<b>12337338</b>	Model 120: includes generator, converter, 3mm probe, cables, wrench set, manual, 230V, 50/60Hz, 203mm x 330mm x 152mm (w x l x h)	1
<b>12893543</b>	Model 505: includes generator, converter, 13mm probe, cables, wrench set, manual, 230V, 50/60Hz, 203mm x 387mm x 216mm (w x l x h)	1
<b>12931151</b>	Model 705: includes generator, converter, 13mm probe, cables, wrench set, manual, 230V, 50/60Hz, 203mm x 387mm x 216mm (w x l x h)	1

### Accessories

Cat. No	Description	Pack qty
<b>12991181</b>	Cup horn for indirect processing of individual sealed tubes or vials, 38mm cup diameter, for 120 watt sonicator	1
<b>15370372</b>	Cup horn for indirect processing of up to 8 (2mL) tubes/vials, 63mm cup diameter, for 500 watt sonicator	1
<b>12357338</b>	Eight-tip horn positioner, 3.1mm tip diameter, for 120 watt sonicator	1
<b>12961161</b>	Footswitch for hands-free operation of 50 watt sonicator	1
<b>12981171</b>	Microtip probe 1.6mm diameter, 0.2mL to 5mL processing volume for 700 watt sonicator	1
<b>12921181</b>	Microtip probe 1.9mm diameter, 0.2mL to 5mL processing volume, for 50 and 120 watt sonicators	1
<b>12991171</b>	Microtip probe 3.1mm diameter, 0.5mL to 15mL processing volume for 500 and 700 watt sonicators	1
<b>12911181</b>	Microtip probe 3.1mm diameter, 0.5mL to 15mL processing volume, for 50 and 120 watt sonicators	1
<b>12931181</b>	Microtip probe 6.3mm diameter, 5mL to 50mL processing volume, for 120 watt sonicator	1
<b>12901181</b>	Microtip probe 6.3mm diameter, 5mL to 50mL processing volume, for 500 and 700 watt sonicators	1
<b>12921171</b>	Probe 12.7mm diameter, 10mL to 250mL, with replaceable tip, for 500 and 700 watt sonicators	1
<b>12971161</b>	Probe 19.05mm diameter with replaceable tip, 25mL to 500mL processing volume	1
<b>12901171</b>	Probe 25.4mm diameter with replaceable tip 50mL to 1000mL for 700 watt sonicator	1
<b>12951171</b>	Replacement tip 12.7mm diameter, for 500 and 700 watt sonicators	1
<b>12961171</b>	Replacement tip 19.05mm diameter, for 500 and 700 watt sonicators	1
<b>12911171</b>	Solid tip probe, 12.7mm diameter, 10mL to 250mL processing volume, for 500 and 700 watt sonicators	1
<b>12981161</b>	Solid tip probe, 19.05mm diameter, 25mL to 500mL processing volume	1
<b>12991161</b>	Solid tip probe, 25.4mm diameter, 50mL to 1000mL processing volume for 700 watt sonicator	1
<b>12353745</b>	Sound enclosure with converter clamp, 254mm x 254mm x 508mm (w x l x h external dimensions), for 120 watt sonicator	1
<b>15351211</b>	Sound enclosure, 343mm x 775mm x 330mm (w x l x h external dimensions), for 500 and 700 watt sonicators	1
<b>12883563</b>	Stand with 12.7mm x 610mm rod and converter clamp for 500 and 700 watt sonicator	1

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Focus on Fisherbrand

for all your **plasticware** needs



For full range refer to  
[www.eu.fishersci.com/go/fisherbrand](http://www.eu.fishersci.com/go/fisherbrand)

fisherscientific  
 by Thermo Fisher Scientific

## LAB ESSENTIALS

This section features a wide variety of Fisherbrand consumables and small apparatus designed to supplement your everyday needs in the laboratory. These items range from sample bags, stands and supports through to our comprehensive range of ever-reliable Traceable™ products including clocks, timers, stopwatches and thermometers.

## Autoclaves, SterilElite™ tabletop

fisherbrand

- Combine compact design with high performance, reliability and safety
- Microprocessor control system provides nine fully automatic programs, including add water, sterilisation and dry
- Eight pre-installed sterilisation cycles
- Two separate water-level check mechanisms: water tank level and chamber water level
- Auto dry function
- Warranty: Two years (one year labour)



Cat. No	Description	Pack qty
15515199	SterilElite™ tabletop autoclave, 16L, 510 x 580 x 410 (w x d x h), mm	1
15525199	SterilElite™ tabletop autoclave, 24L, 540 x 660 x 440 (w x d x h), mm	1
<b>Accessories</b>		
12632975	Spring holder rack	1
12672975	Drawer plate insert for storage rack, 323 x 178 x 21mm	1
12662975	Stacked system shelf for various heights, without plates, 323 x 253 (max.) x 192 (max.) mm	1
12692975	Container with lid, side walls with closable holes, 375 x 228 x 120mm	1
12602985	Drawer plate insert for storage rack, 382 x 187 x 21mm	1
12612985	Stacked system shelf for various heights, without plates, 383 x 290 (max.) x 205 (max.) mm	1

## Bags, biohazard, polypropylene, autoclavable, high temperature

fisherbrand

- For high temperature sterilisation (134°C) to a maximum of 140°C
- All bags are 40µm thick
- The bags should be loosely tied at the top leaving a small hole prior to being autoclaved using autoclave indicator tape
- Opening along width



Cat. No	Width, mm	Length, mm	Pack qty
<b>Printed polypropylene</b>			
11600312	310	660	100
11553342	410	630	100
11563342	620	780	100
<b>Plain polypropylene</b>			
11573342	310	660	100
11583342	410	630	100
11593342	620	780	100

## Bags, homogeniser blender, polyethylene

fisherbrand

- Sterile by irradiation with peel away sterilisation certificate
- Model 400 bags available in a range of different sleeve/pack sizes, with full or side filter, with 50mm white writing strip along one long edge
- 70µm thickness



Cat. No	Description	Blender model	Length x width, mm	Sleeve qty	Pack qty
11815390	Plain	Model 80	150 x 105	25	4500
12682255	Plain	Model 400	300 x 180	25	2500
11867313	Full size filter	Model 400	300 x 180	25	1500
11857403	Side filter	Model 400	300 x 180	25	1500
11770545	Plain	Model 3500	510 x 380	25	500
<b>Accessory</b>					
11522882	Clip for bags	All	-	-	200

## Bags, sample, polyethylene, sterile with metal wire closure

fisherbrand

- Sterile transparent polyethylene bags without side seals in either plain or write-on style
- Convenient pull tabs to open bag without touching the edges
- Ideal for use with solid, semi-solid or liquid samples
- Opening along width



Cat. No	Capacity, mL	Thickness, µm	Length x width, mm	Inner pack qty	Pack qty
<b>Plain style</b>					
11512773	60	63	76 x 127	500	1000
11522773	150	63	76 x 178	500	1000
11532773	450	63	114 x 229	500	1000
11542773	650	76	140 x 229	500	1000
11552773	800	76	114 x 305	500	1000
11562773	1060	76	114 x 382	500	1000
11572773	1500	76	140 x 382	500	1000
11582773	2250	101	254 x 305	500	1000
11592773	4000	101	254 x 382	500	1000
<b>Write-on style, smudge-proof writing surface</b>					
11502783	60	63	76 x 127	500	1000
11512783	120	63	76 x 178	500	1000
11532783	540	63	114 x 229	500	1000
11542783	650	76	140 x 229	500	1000
11562783	2250	101	254 x 305	500	1000
11572783	4000	101	254 x 382	500	1000

## FISHERBRAND SPOTLIGHT



A perfect supplement to this range is the new Fisherbrand bag sealer. This is a useful addition to any lab for the secure sealing of specimen bags

## Bag sealer

Cat. No 15360360 (EU plug)

Cat. No 15350360 (UK plug)



## Permanent marker pens

Cat. No 11734386

For further information on the products featured visit  
[www.eu.fishersci.com/go/fisherbrand](http://www.eu.fishersci.com/go/fisherbrand)



## Barometer with clock, workstation, Traceable™

*fisherbrand*

- Measures barometric pressure and graphically displays the barometric trend
- Ideal for recording ambient changes in the lab, monitoring conditions affecting sample analysis and assisting in the prediction of weather changes
- Displays temperature and time of day and date
- Adjustable altitude compensation from -300 to 1200 metres
- Graphic barometric trend shows present reading and previous one, three, six and 12-hour readings in a bar chart format
- Forecasting indicators show weather conditions for the next 12-hours using symbols for sunny, cloudy and rainy
- Clock shows time in AM/PM or 24-hour format and date
- Barometric range 800 to 1050 mbar; resolution 1 mbar; accuracy  $\pm 6$  mbar
- Temperature range: -9 to 70°C, resolution 0.5°, accuracy  $\pm 1$ °C
- May be wall-mounted
- Individually serial-numbered Traceable™ Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA™



Cat. No	Description	Pack qty
15273966	Barometer with clock, workstation, Traceable™	1

## Calculator, solar desktop

*fisherbrand*

- Built-in solar panels and instructions
- Tough ABS plastic case is ideal for rough lab use
- Feet protect the unit from spills
- Oversized keys with LCD display, angled to eliminate reflected glare
- Performs chain calculations
- Available as either 8 or 12-digit models
- Dimensions 165 x 114 x 9mm
- Weight 0.113kg



Cat. No	Description	Pack qty
11863172	Solar calculator 8 digit	1

## Calipers, digital, steel, Traceable™

*fisherbrand*

- High (8.4mm) digital display
- Durable hardened steel
- Designed for laboratory use, measures in inches and millimeters
- Zero button instantly sets unit to zero when jaws are at any position
- No lubrication is ever required on the ultra smooth slide bar
- Runs on the supplied 1.5V button cell battery for 10000 hours
- Supplied with carrying case and battery
- Supplied with serial-numbered certificate from an ISO 17025 calibration laboratory indicating traceability to NIST™ standards



Cat. No	Measurement range	Resolution	Pack qty
11783217	0 to 150mm	0.01mm	1
11727927	0 to 200mm	0.01mm	1

## Calipers, digital, carbon fibre, Traceable™

*fisherbrand*

- For measuring external or internal diameters
- Ergonomically designed
- No lubrication is ever required on the ultra-smooth slide bar
- Large digital display
- Made of strong composite carbon fibre
- Greater-than or less-than results without calculations
- Zero button instantly resets unit at any position
- Runs on the supplied battery for 10,000 hours
- Range 0 to 100mm or 0 to 150mm, resolution 0.1mm, accuracy  $\pm 0.2$ mm
- Easy switch from metric to inch measurements
- Individually serial-numbered Traceable™ Certificate is provided



Cat. No	Measurement range	Resolution	Pack qty
11777105	0 to 100mm	0.1mm	1
11787105	0 to 150mm	0.1mm	1

## Cell scrapers

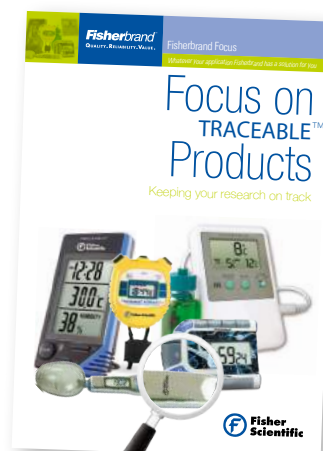
*fisherbrand*

For gently harvesting cells from tissue culture flasks when enzymes cannot be used. With polyethylene blades that swivel for even contact with growth surface.



Cat. No	Handle length, mm	Blade length, mm	Pack qty
11597692	250	18	100

## NEED MORE TRACEABLE™ PRODUCTS?



For further information on the products featured visit [www.eu.fishersci.com/go/fisherbrand](http://www.eu.fishersci.com/go/fisherbrand)

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## Clocks, atomic, radio signal

*fisherbrand*

- Traceable™ atomic clocks are accurate to 1/10,000 of a second
- Resolution is 1 second
- Receives a radio signal from the atomic clocks in Anthon, United Kingdom or Mainflingen in Hessen, Germany, providing you with the exact time accredited to national standards
- Radio signal automatically sets correct date/time, calendar displays month/date and day
- Also features temperature, range -5°C to 50°C (23°F to 122°F); resolution 0.1°C; accuracy ±1°C
- Supplied with wall mount, bench stand, batteries, Traceable™ Certificate



Cat. No	Description	Displays	Pack qty
15378754	Europe Signal Atomic Clock	Calendar, temperature, month/date and day display	1
15368754	UK Signal Atomic Clock	Calendar, temperature, month/date and day display	1

## Stick-It Mini-Clock, Traceable™

*fisherbrand*

- Mini-Clock is perfect for each work area
- Bright hands and white sweeping second hand are easy to read
- Rugged gleaming metal case is O-ring sealed making it water resistant/dustproof
- Mini-size 40mm diameter x 8mm depth
- Velcro™ double-backed tape allows clock to be placed anywhere
- Flat bottom permits standing on shelf, desk, or bench
- Precise quartz-crystal accuracy is 0.013%
- Supplied with battery, Traceable™ Certificate



Cat. No	Outside Diameter	Depth	Height	Accuracy	Resolution	Pack qty
11745833	40.6mm	7.6mm	7.6mm	0.013%	1s	1

## Clock, wall, analogue Seymour Blue™ *fisherbrand* Traceable™

- These radio atomic wall clocks receive radio signals directly from an accredited source
- Accurate to 1/10,000 of a second
- Highly visible second sweep hand
- 'Blue is Good' motif
- Automatically adjusts for daylight saving time and leap seconds
- Wall mount, screw and AA battery
- Individually serial-numbered Traceable Certificate is provided from an ISO 17025 calibration laboratory accredited by A2LA™. It indicates traceability to standards provided by NIST
- Dimensions (depth x O.D.), mm: 32 x 305mm



Cat. No	Description	Includes	Accuracy	Pack qty
11744426	Clock, wall, analogue Seymour Blue™ Traceable™	Wall mount, screw and AA battery	0.0001s	1

## Clock, calendar and thermometer, wall-mounted, Traceable™

*fisherbrand*

- High-tech design looks great on any laboratory, classroom or office wall
- Read the time, date and temperature with one glance at the large 165 x 100mm display
- Time can be displayed in 12-hour AM/PM or 24-hour international time
- Temperature is °C/°F selectable
- Calendar displays month, date and day of the week



Cat. No	Width	Height	Depth	Display type	Temperature range	Includes	Pack qty
11795833	254mm	235mm	25.4mm	LCD	-5° to 50°C	Two AA batteries, wall mount	1

## Clock/thermometer/humidity meter, Traceable™

*fisherbrand*

- Battery operated, wall-mounted unit has 25cm dial
- Displays time to the second with 0.01% quartz crystal accuracy
- Temperature: -20° to +55°C (-4° to +131°F)
- Relative humidity: 0 to 100%
- AA battery and screw for wall mounting
- An individually serial-numbered Traceable™ ISO 17025 certificate is provided to indicate instrument traceability (for time only) to standards provided by NIST
- Timer, countdown, lap, time, alarm, stop/pause, hand-held, elapsed, timepiece, clock, hourglass, watch, chronograph, temperature, moisture, wet, moist, humidity, dew point, RH
- Keep track of the current time, temperature and humidity all at once



## Clock, wall-mounted, Traceable™ *fisherbrand*

- Sturdy laboratory wall clock with sweeping second hand
- Clock tells time to the second with 0.01% quartz-crystal accuracy
- Large, easy to read 25cm dial
- Dust and splash-resistant case, wall-mounting screw, and one AA battery
- Individually serial-numbered Traceable™ Certificate is provided



Cat. No	Description	Diameter, mm	Pack qty
11719815	Wall clock	305	1

Cat. No	Temperature range	Humidity range	Pack qty
11785833	-20°C to 55°C	0 to 100%	1

## Counters, hand tally

fisherbrand

- Counters for hundreds of lab applications or for educational use
- Easy to use, four-digit unit records up to 9999
- Numbers instantly and automatically return to zero by twisting the reset knob
- Large white numerals appear on a black background
- Protective window seals out dust, dirt and humidity
- Rugged, heavy-duty chrome-finished case has a hinged finger loop for a sure grip
- Finger pressure on the button produces an audible click that signals the count
- Unique engineering provides a smooth, tactile feel with every count
- Dimensions: 4.4cm diameter x 2.9cm width
- Weight: 85g



Cat. No	Description	Pack qty
11577483	Tally counter for laboratory use	1
11704599	Tally counter for educational use	1

You may also be interested in our [petri dishes on page 56](#)



## Counter-Pen™

fisherbrand

This combination marker/digital counter is ideal for both the laboratory or use in the wider workplace environment. Each time a mark is made with this felt-tipped pen, the counter beeps and its easy to read LCD displays the count. Can be used to count cell growth on Petri dishes, inventory parts, or tally samples received.



- Marks hold your place while counter tracks your total
- Touch, sound, and count occur simultaneously
- Counter reads to 99999
- Fail-safe reset
- Length 15.2cm, weight 28.4g

Cat. No	Description	Pack qty
11862710	Counter-Pen™	1
13128325	Replacement pen cartridge for Counter-Pen™	1

## Dewpoint/wet-bulb/humidity/thermometer, Traceable™

fisherbrand

- Displays current, minimum and maximum values
- Settable high/low alarm for all four parameters (dewpoint, wet-bulb, humidity and temperature)
- Alarm may be set in 0.1° increments; sounds for one minute, and red LED flashes until readings return to non-alarm conditions
- Temperature range -40° to +70°C, resolution 0.1°, accuracy ±1°C
- RH range 1 to 99%, resolution 0.1%, accuracy ±4%
- Dimensions 105 x 105 x 25mm
- Two AA alkaline batteries for one year of continuous monitoring, and high impact, chemical resistant ABS plastic case



Cat. No	Certifications	Display type	Includes	Temp. range	Pack qty
11724196	ISO 17025, A2LA, NIST	LCD	Two AA batteries, high impact, chemical resistant ABS plastic case	-40° to +70°C	1

## Forceps, dissection, PTFE-coated

fisherbrand

- PTFE coated forceps, providing a non-stick surface to which very few solid or liquid substances will permanently adhere
- Chemically resistant and non-contaminating
- Non-protein binding and providing bio-inert surfaces
- No critical quantities lost due to sticking
- No build up on surfaces
- Ideal for use under severe laboratory conditions
- Excellent non-wetting properties for easy cleaning and can be steam or chemically sterilised
- With guide pin



Cat. No	Tip style	Length, mm	Pack qty
11562113	Sharp ends	115	1
11572113	Sharp ends	130	1
11582113	Sharp ends	160	1
11592113	Blunt ends	115	1
11502123	Blunt ends	130	1
11512123	Blunt ends	160	1

## Humidity meter/clock/thermometer, Traceable™

fisherbrand

- Features analogue time, temperature, humidity
- Supplied with battery, wall mount screw, Traceable™ Certificate
- Shockproof ABS plastic case
- 9V battery for 100 hours of continuous use
- Meets Federal CLIA Requirement 493.1207
- A certificate is provided to indicate instrument traceability to standards provided by the National Institute of Standards and Technology (NIST)

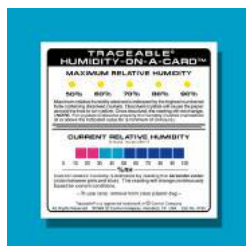


Cat. No	Temperature range	Humidity range	Resolution (temperature)	Resolution (humidity)	Pack qty
11785833	-20°C to 55°C	0 to 100%	1°C	2%	1

## Humidity-On-A-Card™ monitor, Traceable™

fisherbrand

- Ideal for use with bottles, chemicals, plastic bags, electronics, desiccators and storage containers
- Cards record both the current humidity and the maximum humidity attained using colour-change reactions
- Current humidity scale ranges from 0 to 100% RH in 10% increments
- Colour changes from blue to bright pink as the humidity levels rise and fall
- Accuracy is  $\pm 5\%$  RH at 24°C
- Maximum humidity scale uses a non-reversible colour reaction
- Each card is individually sealed in a clear moisture-barrier bag with a desiccant



Cat. No	Humidity range	Accuracy	Pack qty
11782146	0 to 100%	5% RH at 24°C	6

## Humidity/temperature monitor, remote alarm, Traceable™

- Temperature range 0°C to 60°C with 0.1° resolution and  $\pm 0.5^\circ\text{C}$  accuracy
- Humidity range 5 to 95% with 0.1° resolution and  $\pm 3\%$  accuracy RH
- High visibility 12mm high digits simultaneously display high, low and current readings for temperature or humidity
- Remote humidity/temperature sensor on a 2m cable
- Hi/Lo Alarms, Min/Max memories
- High/low alarm feature may be set by user in 1% RH or 1° increments
- Perfect for use in hoods, classrooms, stockrooms, environmental chambers and chemical storage areas
- Ideal for routine measurements, round the clock monitoring, quality control and critical experiments
- Supplied with battery, external humidity/temperature sensor, flip-open stand, wall-mount, Traceable™ Certificate



Cat. No	Description	Pack qty
11714196	Humidity/temperature monitor, remote alarm, Traceable™	1
11794276	Universal radio signal transceiver	1

## Humidity/temperature/dewpoint meter, Memory-Card, Traceable™

fisherbrand

- Monitors cabinets, incubators, cleanrooms, storerooms, labs, hoods and critical areas
- Data logging capabilities that can capture 5.9 million readings with 256Mb removable SD memory card
- Visual and audible alarms indicate when temperature, humidity or dew point rises above and falls below user-defined set points
- USB memory card reader plugs directly into Windows and Mac - no software to install to retrieve date/time of day and readings of sensors
- Supplied with 256Mb SD memory card, USB memory card reader, magnetic strips, Velcro™, wall mount, bench stand, batteries, adaptor, Traceable™ Certificate
- Operates on supplied batteries or supplied adapter



Cat. No	Description	Dimensions (l x w x h), mm	Temperature range	Humidity range	Pack qty
15214016	Humidity/temperature/dewpoint meter, Memory-Card, Traceable™	89 x 108 x 317	0 to 50°C	0 to 90% RH	1

## Hygrometer/thermometer/barometer/ dew point pen, Traceable™

fisherbrand

- User selectable dual display shows humidity/temperature, humidity/dew point, barometric pressure/temperature or barometric pressure/humidity
- Lightweight and portable with simple operation
- MIN/MAX readings recalled at the press of a key
- Tough ABS plastic housing
- Water-resistant
- Membrane keypads provide longer durability
- HOLD button freezes the reading on the display



Cat. No	Temperature range	Humidity range	Barometric range	Dew point	Pack qty
11745853	0° to 50°C	10 to 95% RH	10.0 to 1100 mbar	-25.3 to 48.9°C	1

## Hygrometer/thermometers, digital, certified, Traceable™

fisherbrand

## Humidity/temperature meter, relative, Traceable™

fisherbrand

- Continuously and simultaneously displays relative humidity or humidity/temperature in extra large, 1.5cm high digits
- Made from high impact, chemical resistant ABS plastic
- Ideal for routine measurements, monitoring round the clock, quality control needs and critical experimental requirements in environmental chambers, chemical storage areas, cleanrooms, incubators and stockrooms
- Minimum and maximum memories can be displayed or cleared at any time with the touch of a key
- Fulfills CLIA requirements, °C/°F switchable
- Supplied with wall mount, bench, stand, batteries, Traceable™ Certificate



Cat. No	Description	Temp range	Humidity, RH	Pack qty
11765843	Digital humidity/temperature meter with temperature memory readout	0 to 50°C	25 to 95%	1

- A resolution of 0.01% relative humidity, making this unit ideal for QC labs, ISO 9000 environments and general R&D
- Perfect for hoods, cleanrooms, food storage, process control, incubators, desiccators, drug manufacturing, environmental chambers, corrosion analysis, inside/outside air monitoring
- Fulfills federal CLIA requirements
- Memory recalls minimum and maximum readings at any time, °C/°F switchable
- High and low alarms can be programmed for dew point, temperature and humidity
- Computer output permits data to be captured, transferred, stored and printed with DAS software
- Cable length 1.8m



Cat. No	Description	Probe diameter	Response time	Humidity range	Pack qty
11755843	Instant model digital hygrometer/thermometer	10mm	10 seconds	5 to 95% RH	1
11745843	Basic model digital hygrometer/thermometer	18mm	30 seconds	10 to 95% RH	1
<b>Accessories</b>					
11704286	Data acquisition system				1
15368764	AC adapter, international				1

## Hygrometer/thermometer, printing, Traceable™

fisherbrand

- Provides a permanent record for today's stringent QC documentation by printing current humidity/temperature/time/date and maximum and minimum readings
- Fast response, solid-state sensors detect changes in less than 10 seconds
- Meets CLIA specification 493.1252
- Supplied with T1, T2 Type K probes, cable, cable, probe holder/stand, carrying case, paper rolls, battery, Traceable™ Certificate
- Tough ABS plastic case is chemical and shock-resistant
- Ideal for use in hoods, cleanrooms, food storage areas, drug manufacturing, air analyses and environmental chambers

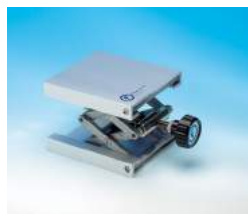


Cat. No	Description	Temperature range	Humidity range	Dimensions (h x w), mm	Pack qty
11739835	Printing Hygrometer/Thermometer	-200 to 1333°C	10 to 95%	190 x 76	1

## Jacks, laboratory

fisherbrand

- Aluminium alloy with lifting screw in stainless steel
- A plastic knob operates the scissor action lifting mechanism
- Invertable so that either plate can be used as the base



Cat. No	Height, mm	Plate dimensions, mm	Load capacity, kg	Pack qty
11517023	60 to 450 (top plate)	280 x 260	35	1

## Manometer pressure/vacuum gauge, Traceable™

fisherbrand

- Portable unit which measures and displays differential pressure/vacuum in a range of available units: psi, mbar, bar, cm/H<sub>2</sub>O, inch/H<sub>2</sub>O, feet/H<sub>2</sub>O, mm/Hg, inch/Hg, kg/cm<sup>2</sup>, oz./inch<sup>2</sup> or kPa
- Response time: 0.5 sec.
- Accuracy: ±0.3% of full-scale between 0 and 50°C
- Readings are shown on backlit display with large 1.6cm digits
- Memory key recalls highest and lowest readings
- Differential feature calculates the difference between two readings
- Zeroing is achieved at the touch of a button
- Display times up to 99 hours, 59 minutes, 59 seconds which allows the user to record when maximum or minimum pressure is achieved
- Model includes tubing, 9V battery, ABS plastic carrying case and RS-232 port
- Individually serial-numbered Traceable Certificate is provided
- Dimensions 181 x 70 x 29mm



Cat. No	Display type	Accuracy	Range, mbar	Range, mmHg	Pack qty
11764206	LCD	±0.3%	0 to 1034	0 to 776	1

## Marking pens, permanent

fisherbrand

- Produce precise lines of 0.3mm width
- Perfect marking pens for lab samples, microscope slides, photographic slides, glass and plastic beakers, and plastic sample bags
- Writes on all surfaces including glass, film, wood, plastic, metal, rubber, and porcelain
- Instant writing, long storage time, and dry-out prevention are assured by an airtight ring seal cap
- Permanent ink dries in a split second and is waterproof and fade-proof



Cat. No	Colour	Pack qty
11734386	Mixed colours, 6 black, 2 red, 2 blue, 2 green	12 set
11744386	Black	6
11754386	Red	6
11764386	Blue	6
11774386	Green	6

## Scaffolding bossheads, aluminium alloy

fisherbrand

Aluminium alloy with clamping screws. For use with rods up to 16mm diameter.



Cat. No	Description	Pack qty
11537722	Bosshead with metal clamping screw head, for rods up to 16mm	5
11547722	Bosshead with plastic clamping screw head, for rods up to 16mm	5

## Scaffolding clamps, for flasks and tubes

fisherbrand

- Clamps enable any items from 2mm to 90mm diameter to be clamped securely
- Aluminium alloy jaws with other parts of plated brass
- The jaw design of the jaw ensures a firm grip at all angles of opening
- Cork liners for the jaws to ensure firm grip are well secured
- Metal or plastic screw head options



Cat. No	Description	Pack qty
11517722	Scaffolding clamp aluminium with metal headed clamping screw	5
11527722	Scaffolding clamp aluminium with plastic headed clamping screw	5

## Scaffolding connectors

fisherbrand

- Die-cast aluminium alloy
- Two or three way
- With thumbscrews for hand tightening
- For fixing rods or tubes at right angles, 6mm to 13mm



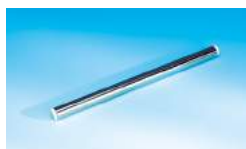
Cat. No	Description	Rod size	Pack qty
11518112	Scaffolding connector, two-way	Up to 13mm	1
11548112	Scaffolding connector, three-way	Up to 13mm	1



## Scaffolding rods

- Aluminium alloy
- All 13mm diameter
- With end plugs

fisherbrand



Cat. No	Length,mm	Pack qty
11557023	600	1
11567023	900	1
11577023	1200	1
11587023	1800	1

## Bases, retort stand, rectangular

fisherbrand

- Pressed steel finished in acid resistant textured acrylic with 10mm threaded holes
- The single hole stands have a hole centrally located on the width
- The double hole stand has one hole centrally located on the width and one centrally located along the length



Cat. No	Description	Dimensions, mm	Pack qty
11548092	Single hole	160 x 100	1
11558092	Single hole	200 x 125	1
11568092	Single hole	250 x 160	1
11578092	Double hole	315 x 200	1

## Support stand bases, rectangular, blue

fisherbrand

- Bases of blue acrylic-finished steel
- Threaded hole (10mm) at the centre of one short side
- Fitted with rubber feet
- Without rod



Cat. No	Dimensions, mm	Pack qty
11518102	160 x 100	1
11528102	200 x 125	1
11538102	250 x 160	1
11548102	315 x 200	1

## Sieves, test, stainless steel

fisherbrand

- 100mm and 200mm diameter test sieves in a wide range of aperture sizes
- Constructed from stainless steel frame and woven wire mesh
- Conforms to BS 410: Part 1: 2000, ISO 3310: Part 1:2000
- Supplied with Certificate of Conformity and record card



Cat. No	Aperture size, µm	Pack qty
100mm diameter		
11582133	25	1
11592133	38	1
11502143	45	1
11512143	53	1
11522143	63	1
11532143	75	1
11542143	80	1

## Sieves, test, stainless steel, continued

fisherbrand

Cat. No	Aperture size, µm	Pack qty
11552143	90	1
11562143	100	1
11572143	106	1
11582143	125	1
11592143	150	1
11502153	160	1
11512153	180	1
11522153	200	1
11532153	212	1
11542153	250	1
11552153	300	1
11562153	315	1
11572153	355	1
11582153	400	1
11592153	425	1
11502163	500	1
11512163	600	1
11522163	630	1
11532163	710	1
11542163	800	1
11552163	850	1
11562163	1000	1
11572163	1180	1
11582163	1250	1
11592163	1400	1
11502173	1600	1
11512173	1700	1
11522173	2000	1
11532173	2360	1
11542173	2500	1
11552173	2800	1
11562173	3350	1
200mm diameter		
11557562	20	1
11547562	25	1
11537562	32	1
11527562	38	1
11517562	45	1
11507562	53	1
11597552	63	1
11587552	75	1
11577552	90	1
11567552	106	1
11557552	125	1
11547552	150	1
11537552	180	1
11527552	212	1
11517552	250	1
11507552	300	1
11597542	355	1
11587542	425	1
11577542	500	1
11567542	600	1
11557542	710	1
11547542	850	1
11537542	1000	1
11527542	1180	1
11517542	1400	1
11507542	1700	1
11597532	2000	1
11587532	2360	1
11577532	2800	1
11567532	3350	1
11597023	4000	1
Accessories		
11592573	Lid for 100mm diameter sieve	1
11502583	Receiver for 100mm diameter sieve	1
11507033	Lid for 200mm diameter sieve	1
11517033	Receiver for 200mm diameter sieve	1
11512763	Sieve brush, double ended, brass, 30mm x 135mm	1



## Stopwatch, three key, Traceable™

fisherbrand

- Lightweight: 24g
- Times to 24hr with a resolution of 1/100s for 30min and 1 second thereafter
- Single action, time out, cumulative split, and continuous rollover timing
- Displays time and date
- Supplied with one year battery, and 3m cord



Cat. No	Description	Pack qty
11765833	Three key stopwatch	1

## Stopwatch, waterproof, Traceable™

fisherbrand

- Waterproof to three atmospheres with O-ring seal
- Times to 24hr
- 1/100s resolution for first 30min
- Tactile 'click' switches provide positive action
- Accuracy 0.01%,
- Dimensions: 53mm x 59mm x 12.5mm
- Supplied with batteries



Cat. No	Description	Pack qty
11755833	Stopwatch, waterproof	1

## Stopwatch, 60-memory, Traceable™

fisherbrand

- Extra smart 10 hour time keeper recalls 60 events
- Features: 60 memories, alarm, time, date, day of week
- Automatic repeat with countdown alarm timing
- Three line display, times to 10hr
- Multifunction stopwatch, 60 memories recall all splits
- Timing capacity: 9 hours, 59 minutes, 59 seconds
- Resolution: 0.01s
- Accuracy: 0.001%
- Timing functions: A, B, C, D
- Supplied with battery, lanyard, Traceable™ Certificate



Cat. No	Description	Pack qty
11522803	Stopwatch, 60 memory, with two year silver oxide battery, lanyard	1

## Temperature chart recorders, disposable, Traceable™

fisherbrand

- Provides a permanent record, easy to read, fax or scan
- Monitors refrigerators, supply rooms, food storage, chemical warehouses, animal quarters, incubators, goods-in-transit, walk-in chambers, biological materials, and manufacturing plants
- Single use, disposable recorder displays temperatures on a 0.9mm strip chart
- Records for 10 or 40 days
- Temperature range -28 to 38°C and -20 to 100°F
- Accuracy is  $\pm 1^\circ\text{C}$  ( $\pm 2^\circ\text{F}$ )
- Solid state, battery-driven, quartz-crystal controlled motor turns the chart with an accuracy of better than 1 second per day
- Temperature sensor is bimetallic
- Shows temperature and time/day of occurrence
- A tamper evident seal maintains the integrity of unit and results
- Recorded chart remains inside unit until seal is broken
- Four-part form on the front permits writing start time, date, location, and other pertinent information
- The instrument, chart, four-part form, and Traceable™ Certificate are all marked with the same serial number
- Dimensions and weight: 133 x 97 x 64mm, 284g
- Supplied with battery, chart paper, Traceable™ Certificate



Cat. No	Description	Pack qty
11709795	10 Day recorder	1
11719795	40 Day recorder	1

## Temperature data logger, Logger-Trac™ LN<sub>2</sub>, Traceable™

fisherbrand

- Temperature data logger that has a storage capacity of 64,000 readings
- External sensor designed for -200°C environments in the lab or in transit
- Unit has an internal sensor for ambient temperature and one external probe that is perfect for monitoring cryo-material in transit as well as reagents, clinical samples, frozen samples, pharmaceuticals and food items in any location
- Active LCD shows the following important data when recording: current temperature, minimum and maximum temperatures, recording time
- Displays cumulative alarm duration from user-selected minimum and maximum values
- When alarm condition occurs, the following additional information will be displayed on the LCD, alarm tally, alarm notification and cumulative alarm time
- Re-usable/re-programmable unit with user-selectable recording intervals
- Compact size and IP66 waterproof rating
- Integrates with MaxiThermal software for complete data analysis; software features include temperature alarm set points, temperature recording interval, start delay, stop enable key
- Supplied with battery, Traceable™ Certificate



Cat. No	Range	Accuracy	Resolution	Pack qty
15328764	Internal: -29 to 72°C; External: -200 to 72°C	Internal: $\pm 0.2^\circ\text{C}$ (2 to 10°C); $\pm 2^\circ\text{C}$ otherwise; External: $\pm 0.2^\circ\text{C}$ (0 to 30°C); $\pm 2^\circ\text{C}$ otherwise	0.1°	1

## Temperature/RH data logger, Logger-Trac™, Traceable™

fisherbrand

- Humidity and temperature data logger with a storage capacity of 30,720 readings
- Perfect for monitoring temperature and humidity actually during transportation or in the laboratory environment
- Active LCD shows the following important data: current temperature, minimum and maximum temperatures, current humidity level, recording status, run time, cumulative alarm (excursion) time
- Immediately know the temperature and humidity excursion duration
- Re-usable/re-programmable unit with user-selectable recording intervals
- Integrates with MaxiThermal software for complete data analysis; software features include temperature alarm set points, temperature and humidity recording interval, start delay, stop enable key
- Supplied with battery, Traceable™ Certificate



Cat. No	Temperature range	Accuracy (temperature)	Humidity range	Resolution	Pack qty
15318764	-29 to 72°C	0.2°C (0 to 10°C); ±0.5°C otherwise	0 to 100% RH	0.1° (temp), 0.1% (RH)	1

## Temperature data logger, Logger-Trac™, Traceable™

fisherbrand

- For temperature monitoring of material during storage, handling and transportation
- Small and compact with a storage capacity of 7680 readings
- Active LCD shows the following important data: current temperature, minimum and maximum temperatures, recording status, run time, cumulative alarm (excursion) time, quarantine status, alarm tally
- Displays cumulative alarm duration from user-selected minimum and maximum values
- Re-usable/re-programmable unit
- Integrates with MaxiThermal software for complete data analysis
- Supplied with battery, Traceable™ Certificate



Cat. No	Description	Range	Accuracy	Resolution	Pack qty
15398754	Temperature data logger	-35 to 50°C	± 0.2°C from 0 to 10°C, ±1 otherwise	0.1°	1
<b>Accessories</b>					
15308764	Logger-Trac™ protective paper sleeves				100
15338764	Logger-Trac™ cradle/cable				1
15348764	MaxiThermal™ software				1
15358764	Data capture USB cable				1

## Thermometer, big-digit memory, Traceable™

fisherbrand

- Dual display permits reading ambient and probe temperatures simultaneously, °C/°F switchable
- MIN/MAX memory readings may be displayed and reset at the touch of a key
- Cable and sensor perform accurately when underwater, 'always-on' instrument reads temperature constantly
- Supplied with flip-open stand, wall mounting, battery, 3m cable, Velcro™, Traceable™ Certificate



Cat. No	External probe range	Ambient sensor range	Resolution	Accuracy	Pack qty
11759755	-50 to 70°C	-5 to 50°C	0.1°	±1°C	1

## Thermometer, digital with short sensor, Traceable™

fisherbrand

- Perfect thermometer for monitoring liquids, air/gas, or semi-solids in tanks, freezers, water baths, incubators, and refrigerators
- Unit reads ambient temperature or probe temperature
- Triple display simultaneously shows high, low, and current temperatures
- Minimum and maximum memory feature permits monitoring conditions for any time requisite period
- Range -50.0 to 70.0°C, resolution is 1°, accuracy is ±1°C
- Alarm set in 1° increments sounds when temperature rises above or falls below set points
- Sensor, AAA Alkaline battery, flip open stand, wall mount, magnet and Velcro™ mounting tape
- Individually serial-numbered Traceable™ Certificate is provided



Cat. No	Temperature range	Resolution	Probe cable length	Pack qty
11799735	-50° to +70°C	1°C	305cm	1

## Thermometer, digital, Traceable™

fisherbrand

- With triple purpose stainless steel probe (60mm) for liquids, air/gas and semi-solids
- Ideal for food, pharmaceuticals, petroleum products, gas systems, soil, ovens and more
- Unit reads in °C or °F and includes a HOLD key for freezing data on the display for future readings
- Instant HISTORY key recalls minimum and maximum readings over the past 24 hours
- Units conforms to ITS-90 international temperature standard
- Supplied with battery, probe, 150cm cable, computer output, plastic carrying case, Traceable™ Certificate



Cat. No	Description	Range	Resolution	Accuracy	Pack qty
11705843	Thermometer digital, Traceable™	-50 to 150°C	0.001°C	±0.05°C	1
<b>Accessories</b>					
11704286	Data acquisition kit Fisherbrand for 11705843				1
15223996	Replacement probe for digital thermometer				1

## Thermometer, digital, waterproof, with *fisherbrand* stainless steel probe, Traceable™

- Water/shockproof case provides flawless readings in freezers, water baths, incubators and tanks
- One-key operation quickly recalls highest/lowest readings over any time period
- Easy view, 6.4mm high LCD digits may be read at a glance
- Supplied with battery, probe, cable, suction cups, magnet, Velcro™ strips, Traceable™ Certificate
- All-weather compatible
- Stainless steel probe is chemically resistant to most acids, bases and solvents and may be used to measure temperature of gases, liquids, food and other semisolids



Cat. No	Range	Resolution	Accuracy	Probe	Pack qty
11715843	-50° to +300°C	0.1°	±1°C	3.5mm diameter, 184mm length, 914mm cable	1

## Thermometer, hi-accuracy refrigerator/freezer, Traceable™

*fisherbrand*

- This Traceable™ Hi-Accuracy refrigerator/freezer thermometer has an alarm which provides two visual LEDs and two audio alerts
- Triple display shows minimum/maximum and current temperatures
- Min/max monitors readings for any period, displays exact time/date temperature occurred
- Temperature range: -50 to +70°C, resolution 0.01°C, accuracy ±0.3°C
- Two channel alarm programmable in 0.1° increments and sounds continuously when temperature rises above/falls below set points
- High impact, chemical resistant ABS plastic case, stand, Velcro™ and magnetic strips, wall mount, two AA batteries and probe(s)
- Overall weight 141.74g
- Individually serial-numbered Traceable™ Certificate is provided
- Available with bottle probe or regular sensors



Cat. No	Includes	Pack qty
11715853	ABS plastic case, stand, Velcro™, magnetic strips, wall mount and two AA battery, one bottle probe (patented)	1
11725853	ABS plastic case, stand, Velcro™, magnetic strips, wall mount and two AA battery, two bottle probes (patented)	1
11735853	ABS plastic case, stand, Velcro™, magnetic strips, wall mount and two AA battery, two chemical resistant waterproof sensors 5mm diameter and 19mm long	1

## Thermometer, jumbo refrigerator/freezer, Traceable™

*fisherbrand*

- Jumbo LCD simultaneously shows minimum, maximum and current temperatures
- Popular modular thermometer is easy to mount or position on any flat surface
- Valuable MIN/MAX memory records readings over any time period, °C/°F switchable
- Easy-read digital display with jumbo digits updates every 10 seconds to maintain excellent test results
- Supplied with battery, magnet, stand, bottle probe, 3m cable, Traceable™ Certificate



Cat. No	Includes	Pack qty
11705863	Traceable certificate, flip open stand for lab bench, slot for wall mounting, one AAA Alkaline battery, Velcro™ and magnetic strips to attach to any surface, sealed bottle probe for fridge/freezer applications	1

## Thermometer, long-stem digital, Traceable™

*fisherbrand*

- Rugged and versatile digital thermometers
- Durable and safe, containing no mercury or alcohol
- Ideal for replacing all glass and mercury thermometers in the lab or outside
- Long stem allows for taking readings while stirring
- Large, bright 6mm display
- On/off switch provides longer battery life, °C/°F switchable range
- Read soil temperatures or stir and measure the temperature of solutions
- Can also be used with incubators
- Supplied with battery, protective sleeve, Traceable™ Certificate



Cat. No	Range	Resolution	Accuracy	Probe	Overall length	Pack qty
11799705	-50 to 150°C (-58 to 302°F)	0.1° from -20 to 200°C (1° otherwise)	±1°C	203mm	279mm	1
11719715	-50 to 150°C (-58 to 302°F)	0.1° from -20 to 200°C (1° otherwise)	±0.2°C at tested points	203mm	279mm	1
11729715	-50 to 150°C (-58 to 302°F)	0.1° from -20 to 200°C (1° otherwise)	±1°C	279mm	356mm	1
11739715	-50 to 150°C (-58 to 302°F)	0.1° from -20 to 200°C (1° otherwise)	±0.5°C at tested points	279mm	356mm	1

## Thermometer, Refrigerator/Freezer Plus™, Traceable™

*fisherbrand*

- Available with either standard sensor or sensor in enclosed temperature-buffered bottles
- Bottles insulates sensor from rapid temperature changes
- Triple display simultaneously shows MIN/MAX and current temperatures, °C/°F switchable
- Monitors high and low readings overnight, on weekends, or for any time period, a significant advantage over current read-only temperatures
- Alarm is programmable in 1° increments and alerts user when temperature rises above or falls below a set point
- Supplied with battery, Velcro™, magnetic strips, 3m cable, Traceable™ Certificate



Cat. No	Detection range	Probe type	Resolution	Accuracy	Pack qty
11705853	50 to 70°C	Bottle probe (patented) for refrigerator/freezer applications	0.1°	±0.5°C	1
11709755	50 to 70°C	Standard sensor 5x19mm	0.1°	±0.5°C	1
11715863	50 to 70°C	Vaccine bottle probe 5mL	0.1°	±0.5°C	1

## Thermometer, refrigerator, memory-card, Traceable™

fisherbrand

- Temperature and humidity data logger with Min/Max memory and High/Low alarms
- User-defined temperature observations can be made once per minute up to once every 720 minutes
- Thermometer captures 5.9 million readings on removable SD card
- USB memory card reader plugs directly into Windows and Mac - no software to install
- Text report includes date/time of day and sensor readings
- Alarm sounds and LED flashes when temperature rises above or falls below user-set trip points
- Supplied with 256Mb SD memory card, memory card reader, batteries, magnetic strips, Velcro™, flip open stand, adapter, Traceable™ Certificate



Cat. No	Range	Resolution	Accuracy	Probe type	Pack qty
13557070	-30 to 70°C (22 to 158°F)	0.1°	±5°C from 0°C to 25°C; ±0.6°C from 25°C to 70°C; ±1.2°C from -30°C to 0°C and 50 to 70°C	Bottle (patented)	1
13587070	-30 to 70°C (22 to 158°F)	0.1°	±5°C from 0°C to 25°C; ±0.6°C from 25°C to 70°C; ±1.2°C from -30°C to 0°C and 50 to 70°C	Stainless steel	1

## Thermometer, refrigerator/freezer, Traceable™

fisherbrand

- Popular refrigerator/freezer thermometers
- Triple display simultaneously shows MIN/MAX and current temperatures, °C/°F switchable
- Accurately monitor temperatures in freezers, water baths, heating blocks, incubators and refrigerators with these bottle enclosed temperature-buffered sensors
- Glycol filled bottles insulates sensor from rapid temperature changes when refrigerator door is opened, and mimic actual storage conditions of vaccines or other temperature sensitive samples
- Minimum/maximum monitors high and low readings overnight, on weekends, or for any time period
- Alarm is programmable in 1° increments, sounds continuously when temperature rises above/falls below set points and can be turned off manually
- Visual and audible signals continue even if temperature returns to non-alarm range
- High impact, chemical resistant ABS plastic case: 70mm x 108mm x 19mm, weight 113g
- Supplied with stand, 3m micro cable, wall mounting, Velcro™, magnetic strips, Traceable™ Certificate



Cat. No	Range	Resolution	Accuracy	Probe type	Pack qty
11799735	-50 to 70°C (-58 to 158°F)	1°	±1°C	Short sensor 5mm diameter and 19mm long	1
11873460	-50 to 70°C (-58 to 158°F)	1°	±1°C	Bottle designed for refrigerator/freezer applications (patented)	1
11749745	-50 to 70°C (-58 to 158°F)	1°	±1°C	5mL vaccine bottle mimics vaccine temperature and fits in tray	1

## Thermometer, Sentry™, Traceable™

fisherbrand

- Simple one-key reset operation resets MIN/MAX memories
- Constantly monitor high, low and current temperatures
- Sensor and 3m cable may be placed underwater, in refrigerator or in freezer
- Unplugging the cable activates a sensor inside the unit for monitoring ambient temperature
- Supplied with battery, probe, 3m cable, wall mount, magnet, stand, Velcro™, Traceable™ Certificate



Cat. No	Range	Resolution	Accuracy	Probe type	Pack qty
11785843	-50 to 70°C (-58 to 158°F)	1°	±1°C	Short sensor 5mm diameter and 19mm long	1
11765853	-50 to 70°C (-58 to 158°F)	1°	±1°C	Bottle designed for refrigerator/freezer applications (patented)	1
12641395	-50 to 70°C (-58 to 158°F)	1°	±1°C	5mL vaccine bottle mimics vaccine temperature and fits in tray	1

## Thermometer, lollipop, stainless steel, Traceable™

fisherbrand

- A very lightweight, wide range product that covers 99% of routine temperature measurement needs
- Shockproof and waterproof unit delivers reading updates every second
- One key operation recalls MIN/MAX temperature results, °C or °F switchable
- Supplied with battery, probe, probe cover with pocket clip, Traceable™ Certificate



Cat. No	Range	Resolution	Accuracy	Pack qty
11785853	-50 to 300°C (-58 to 572°F)	0.1° from -20 to 200°C; or 1°C otherwise	±1°C	1
11799715	-50 to 300°C (-58 to 572°F)	0.1° from -20 to 200°C; or 1°C otherwise	±0.4°C at tested points	1

## Thermometer, data logging, refrigerator/freezer, Excursion-Trac™, Traceable™

fisherbrand

- Data logging thermometers with user defined time intervals
- Meets current CDC requirements for vaccine storage and monitoring
- Rolling memory structure, maintains most recent 525,600 temperature observations
- Stores up to 10 unique alarm events
- Memory can be cleared on unit after downloading data to USB stick
- Easy retrieval of data - unit can remain in use while downloading and analysing data
- Status indicators - low battery, memory full, USB data transfer and active alarm state
- Supplied with stand, Velcro™, magnets, wall mount, batteries, Traceable Certificate



Cat. No	Range	Resolution	Accuracy	Probe type	Pack qty
15294016	-50 to 70°C (-58 to 158°F)	0.01°	±0.25°C	1 Bottle	1
15204026	-50 to 70°C (-58 to 158°F)	0.01°	±0.25°C	2 Bottles	1
15214026	-50 to 70°C (-58 to 158°F)	0.01°	±0.25°C	1 Bullet™	1
15224026	-50 to 70°C (-58 to 158°F)	0.01°	±0.25°C	2 Bullets™	1
15234026	-50 to 70°C (-58 to 158°F)	0.01°	±0.25°C	1 Bottle & Bullet™	1
15244026	-50 to 70°C (-58 to 158°F)	0.01°	±0.25°C	1 Stainless steel	1
15388754	-50 to 70°C (-58 to 158°F)	0.01°	±0.25°C	2 Stainless steel	1



## Thermometer, refrigerator/freezers, platinum high-accuracy, Traceable™

fisherbrand

- Displays MIN/MAX temperatures for previous 24 hours (for each hour) and previous seven days (for each day); or previous 31 days (for each day)
- 13507080 is ideal for ultra low freezer applications
- 13577070 and 13567070 are ideal for refrigerator/freezer applications
- Triple display shows current temperature in °C or °F, as well as the MIN/MAX temperatures
- Time/date stamp key shows exact time and date for all minimum and maximum readings
- Visual LED flashes and audible alarm sounds continuously even if temperature returns to non alarm range
- Supplied with platinum probe, stand, wall mount, probe holder, batteries, Traceable™ Certificate



Cat. No	Range	Resolution	Accuracy	Probe type	Calibration points	Pack qty
<b>Platinum RTD stainless steel probe</b>						
<b>13597070</b>	-100 to 199°C (-148 to 199°F)	0.01°	±0.1°C	Handle: platinum RTD stainless steel; 3.3mm dia. x 160mm stem, x 2.7m overall	-80°C, 0°C, 50°C, 190°C	1
<b>Refrigerator/freezer probes</b>						
<b>13577070</b>	-50 to 70°C (-58 to 158°F)	0.01°	±0.1°C	Bottle (patented) designed for refrigerator/freezer applications	-40°C and 50°C	1
<b>13567070</b>	-50 to 70°C (-58 to 158°F)	0.01°	±0.1°C	Short sensor 5mm diameter and 19mm long	-40°C and 50°C	1
<b>13507080</b>	-100 to 70°C (-148 to 158°F)	0.01°	±0.1°C	Short sensor 5mm diameter and 19mm long	-80°C, 0°C and 50°C	1

## Thermometer, waterproof food HACCP, Traceable™

fisherbrand

- Versatile, no-touch infrared and piercing probe combination create a perfect HACCP thermometer
- Designed specifically as a HACCP (Hazard Analysis and Critical Control Point) thermometer for food safety
- LED's indicate the HACCP zones: green light under 4°C (40°F), green light over 60°C (140°F) and red danger light between 4 to 60°C (40 to 140°F)
- Display shows current, MIN/MAX temperature, low battery and emissivity value for infrared
- Waterproof case and unique membrane keys prevent splashes/spills from permeating unit
- Infrared emissivity: 0.95 default; adjustable from 0.1 to 1.0; field of view: 2.5:1
- Supplied with battery, probe, Velcro™, Traceable™ Certificate



Cat. No	Range	Accuracy	Resolution	Pack qty
<b>11775853</b>	-55° to +250°C	±0.5°C	0.2°C	1

## Thermometer, non-contact infrared gun, Traceable™

fisherbrand

- Point and read gun provides temperature results of any surface in less than one second
- Easy read display is back lit, has low battery indicator, and tracks maximum readings
- DATA HOLD key freezes display and gives time to accurately record readings
- Emissivity is 0.95 fixed
- Unit can take measurements in °C and °F and includes auto-off feature
- Supplied with batteries, Traceable™ Certificate



Cat. No	Range	Resolution	Field of view	Accuracy	Pack qty
<b>11729785</b>	-60° to +500°C	0.1°	11:1	±2% of reading or ±2°C	1

## Thermometer, infra red, with pocket clip, Traceable™

fisherbrand

- Easy to use - simply turn it on, point at sample, and take a reading in less than a second
- Reads any surface type, solids, semisolids and liquids
- Non-invasive, no-touch measurements are ideal for food preparation, life sciences, pharmaceuticals, petroleum products, cleanrooms, electronics and field use
- Easy to carry design is ideal for blood bank labs
- Simple point and shoot operation, °C/°F switchable
- Fixed emissivity is precisely set at 0.95
- Supplied with battery, lanyard, pocket clip, key chain, Traceable™ Certificate



Cat. No	Includes	Range	Resolution	Accuracy	Field of view	Pack qty
<b>11709785</b>	Handy pocket clip, key chain strap, battery	-33° to +220°C	0.1°C	±1°C	1:01	1

## Thermometer, Kangaroo™, Traceable™

fisherbrand

- Pocket-size thermometer features handy cable storage and probe brackets for portability
- Precision memory feature automatically captures and recalls minimum/maximum temperature readings over any time period, °C or °F switchable
- Efficient alarm continues to sound every minute until temperature returns to non-alarm conditions
- Supplied with battery, stainless steel probe, cable, flip-open stand, Traceable™ Certificate



Cat. No	Range	Accuracy	Resolution	Probe type	Pack qty
<b>11799725</b>	-50° to +300°C	±1°C	0.1°C	Sensor 190mm length 3.5mm diameter	1



## Thermometer, freezer, platinum Traceable™

fisherbrand

- Fast-response RTD platinum probe with thin micro cable delivers high precision results
- Accurate -100°C platinum probe is triple purpose for liquids, gas/air and frozen materials
- Ultra-slim micro 3m cable allows freezer doors to seal tightly around it
- One-key condition allows everyone in the lab to report identical readings and eliminates operator error techniques
- Supplied with platinum RTD probe, battery, Traceable™ Certificate



Cat. No	Range	Accuracy	Resolution	Probe type	Pack qty
11739765	-99.9° to +199.9°C	±2°C	0.1°C	76mm probe, 4mm diameter, 3m cable length	1

## Thermometer, platinum ultra-accurate digital, Traceable™

fisherbrand

- Most accurate thermometer available with 0.0001° resolution
- Instant response probe updates readings three times per second for liquids, air/gas and semi-solids
- Computer output data captures in real time
- Decimal-placement key changes display to show 1, 2, 3 or 4 significant numbers after decimal
- Internal data logger automatically captures MIN/MAX readings every hour for last 24 hours
- Supplied with battery, platinum RTD stainless steel probe, cable, computer output, plastic carrying case, Traceable™ Certificate



Cat. No	Unit range	Probe range	Resolution	Accuracy	Probe type	Pack qty
15234016	-200 to 500°C (-328 to 932°F)	-200 to 500°C (-328 to 932°F)	0.0001°	±0.05°C or 0.05% between -80 to 290°C	160mm stem, 3.3mm diameter, 1.8m cable	1
15244016	-200 to 500°C (-328 to 932°F)	-100 to 200°C (-148 to 392°F)	0.0001°	±0.05°C or 0.05% between -80 to 290°C	25mm stem, 6mm diameter, 3m PTFE cable	1
<b>Accessories</b>						
15254016	Replacement platinum RTD stainless steel probe					1
15264016	Replacement platinum RTD stainless steel Bullet™ probe					1
11704286	Data acquisition kit, comprising accessory data cable with communication software, parallel to serial converter and a.c. adapter					1

## Thermometer/clock/humidity monitor, Traceable™

fisherbrand

- Simultaneously displays time of day, temperature and humidity
- Three-function LCD display with large 13mm digits
- Features: MIN/MAX memory, memory clear, °C/°F switchable, 12/24-hour clock
- At the touch of a button, memory recalls the highest and lowest temperature and humidity readings
- Internal sensors make it ideal for use in hoods, storerooms, cleanrooms, incubators, drying chambers and environmental cabinets
- Supplied with stand, wall mount, double-back tape, batteries, Traceable™ Certificate



Cat. No	Temperature range	Humidity range	Dimensions (l x w x h), mm	Pack qty
11725843	0° to 50°C	20 to 90% RH	108 x 57 x 13	1

## Thermometer, printing, Traceable™

fisherbrand

- Provides permanent record of temperature and time of day/date/month
- Prints the time and date for maximum only, minimum only, average only, and in circularly mode T1, T2 and differential
- Automatic printing may be programmed to print in any interval from 3 seconds to 23 hours 59 minutes 59 seconds
- Dual probe inputs allow displaying temperature of probe 1, probe 2, or difference (delta) of probe 1 and 2 (accepts Type J, K, T or E probe), °C/°F switchable
- Supplied with two 1.2m Type K beaded probes, two thermal paper rolls, ABS carrying case, Traceable™ Certificate



Cat. No	Range	Resolution	Pack qty
11779775	-200 to 1333°C	0.1°	1

## Thermometer, RTD platinum, Traceable™

fisherbrand

- High precision thermometer is geared specifically for measuring temperatures in soils, foods, oven, cuvettes, gas systems, water baths, wastewater, incubators, chemical solutions and extremely cold conditions
- Fail-safe display shows low battery and probe conditions
- Computer output allows thermometer to be connected to a computer or data logger for capturing and storing results
- One-key condition allows everyone in the lab to report identical readings and eliminates operator error techniques
- Supplied with platinum RTD probe, battery, Traceable™ Certificate state of the art aerospace technology delivers high platinum performance



Cat. No	Range	Resolution	Accuracy	Probe type	Waterproof	Pack qty
11729765	-50 to 400°C	0.01° below 200°C, 0.1° above 200°C	±0.1% + 0.2°C below 200°C and ±0.15% + 0.5°C above 200°C	152mm probe, 3.3mm diameter, 1m cable length	Probe only	1

## Thermo-humidity meter, jumbo, Traceable™

fisherbrand

- Very large 25mm digits display humidity, temperature and are readable from 10m away
- Simultaneously displays ambient relative humidity and internal probe and external probe temperatures °C/°F with dual recall memories
- Both sensor and 3m cable perform accurately when under water
- Fulfills CLIA specification 493.1207
- Response time is less than 30 seconds
- Supplied with flip-open stand, wall mount, battery, Traceable™ Certificate



Cat. No	Temperature range	Temperature resolution	Humidity range	RH Accuracy	Dimensions (l x w x h), mm	Pack qty
11536973	-5° to 50°C	1°C	25 to 95%	±2 to ±4%	19 x 98 x 108	1

## Thermometer, total range, Traceable™

- Water-resistant unit is perfect for use in lab or in more challenging working environments
- Water-resistant design for rough handling: casing stops dirt, dust, fumes and water
- Unit can recall minimum and maximum temperature readings captured during any time; updates display twice a second
- HI/LO alarm: indicates when temperature rises above or falls below high/low set points, 1° increments, °C/°F switchable
- Timer feature displays duration of temperature conditions and time tests; capacity: 23 hours 59 minutes to 1 minute; resolution: 1 second
- Probe range (supplied) -40 to 250°C continuous or 300°C short-term; accepts all Type K thermocouples
- Supplied with flip-out stand, PVC casing, 1.2m Type K beaded probe, batteries, Traceable™ Certificate



Cat. No	Range	Dimensions (l x w x h), mm	Probe type	Accuracy	Resolution	Pack qty
11749765	-200° to +1370°C	178 x 83 x 38.1	Type K	±1°C	0.1°C	1

## Timer, benchtop, 100 minute, Traceable™

- One timing channel and single-line display, ideal for repetitive timings
- Features count down, memory, large keys, extra large digits, alarm
- Four-digit LCD 19mm high display shows the time remaining in minutes and seconds
- Automatic memory resets display to last programmed time, ideal for repeat tests
- High volume alarm sounds at zero for 30s
- Timing capacity: 99 minutes, 59 seconds
- Resolution 1 second with accuracy 0.01%
- Dimensions 12.7 x 63.5 x 63.5mm
- Supplied with battery, magnet, flip-open stand, clip, Traceable™ certificate



Cat. No	Description	Pack qty
11799795	Timer, benchtop, 100 minute, Traceable™	1

## Timer, benchtop QC, 20-hour, Traceable™

- One timing channel and a single-line display
- For general-purpose timing applications
- Simple three-key use and large digits for easy viewing
- Times set up to 20hr in 1min increments
- At zero 1min alarm sounds
- Very large 19mm LED digits
- Timing capacity: 19 hours, 59 seconds
- Resolution: 1 min
- Accuracy: 0.01%
- Supplied with battery, flip-open stand, magnet, Traceable™ Certificate



Cat. No	Description	Includes	Pack qty
11715873	Traceable™ QC timer	Clip and magnetic back, 3-year AAA battery; ABS plastic case	1

## Timer, Clip-It™, Traceable™

Clips to your lab coat, belt, notebook, clipboard, or anywhere. The Clip-It timer counts down, alarms and functions as a stopwatch. Loud-beeping alarm sounds for 60 seconds or may be silenced manually.

- Very popular multi-tasking timer with handy attachment clip and magnetic back
- One timing channel and a single-line display
- Features: count up/down, alarm, time in/out
- Memory saves last programmed setting for quick recall - useful for repetitive timing events
- Timing capacity: 99 hours, 59 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.005% quartz-crystal
- Supplied with clip, magnet, opening for lanyard, battery, Traceable™ Certificate



Cat. No	Description	Range	Pack qty
11765873	Traceable™ Clip-It™ Timer	100 hours down to 1 second	1

## Timer, extra large digit countdown, Traceable™

- Extremely large 38mm digit height allows viewing from 18m
- Features: count up/down, memory, alarm, stopwatch
- Unique memory returns channel to previously programmed setting at touch of a key
- Timing capacity: 99 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Dimensions 69.9 x 97.4 x 25.4mm
- Supplied with hanger, clip, easel bench stand, magnetic back, battery, Traceable™ Certificate



Cat. No	Description	Accuracy	Resolution	Range	Pack qty
15204016	Timer, extra large digit countdown, Traceable™	0.01%	1 sec.	99 min., 59 sec.	1

## Timer, flashing LED alert big-digit alarm, Traceable™

- Packed with features, including big 25mm display, count up/down, adjustable alarm, flashing LED, adjustable volume, three countdown memories and superb accuracy
- Green light flashes every second after timing reaches 10 seconds; red LED indicator flashes when zero is reached and shows time elapsed since alarm
- Adjustable volume: high decibel, low decibel, or off for silent visual flashing LED
- Timing capacity: 99 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with batteries, magnetic back, flip-open stand/ clip, opening for lanyard, Traceable™ Certificate



Cat. No	Description	Pack qty
11739795	Traceable™ flashing LED alert big-digit alarm timer	1

## Timer, flashing LED alert big-digit dual *fisherbrand* channel, Traceable™

- Compact, multi-tasking timer with six-digit, dual channel display
- Features: two simultaneous countdown channels, flashing LED timing indicator/alarm, adjustable volume
- Unique visual indication for each channel; green light flashes while counting down and red light flashes once zero has been reached
- Adjustable volume: high decibel, low decibel, or off for silent flashing LED operation
- Timing capacity: 99 hours, 59 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with batteries, magnetic back, flip-open stand/clip, opening for lanyard, Traceable™ Certificate



Cat. No	Description	Pack qty
11749795	Traceable™ flashing LED big-digit dual channel timer	1

## Timer, Giant-Digit™ countdown, *fisherbrand* Traceable™

- View giant digits on this bench timer from across the lab
- Features: count up/down, alarm, memory, stopwatch mode
- 34mm digit height - viewable from 15m away
- Countdown and alarm on single channel for ease of use
- Three button intuitive operation eliminates reading instructions
- Automatic Bounceback™ memory for repetitive timing
- Counts up during alarming indicating elapsed time since alarming
- Counts up in stopwatch mode
- Timing capacity: 99 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with stand, magnetic back, battery, Traceable™ Certificate



Cat. No	Description	Pack qty
11765863	Traceable™ Giant-Digit™ countdown timer	1

## Timer, four-channel alarm, *fisherbrand* Traceable™

- The lab's most popular timer
- Set four separate channels independently from 99 hours, 59 minutes, 59 seconds to one second
- Large high display allows viewing from a distance
- Remarkable memory returns display to previously programmed countdown time at the touch of a button
- Extra-loud, high decibel alarms for 1 minute or can be silenced manually
- Timing capacity: 99 hours, 59 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Dimensions 70 x 64 x 13mm
- Supplied with clip, stand, magnet, battery, Traceable™ Certificate



Cat. No	Description	Pack qty
11745863	Traceable™ four-channel alarm timer	1

## Timer, hand held, fingertip, *fisherbrand* Traceable™

- Simple hand held timers for general purpose timing applications
- Quick to program, three-key, countdown timer delivers error-free operation for any lab test
- Slips easily in your lab coat pocket
- One channel, countdown/countup, single-line display
- Rugged ABS plastic case
- Traceable to NIST™ standards
- Accuracy 0.01% with a 1 second resolution
- Memory recall
- Magnetic back with Velcro™ strips for mounting
- Supplied complete with silver oxide battery



Cat. No	Description	Dimensions, mm	Time range	Pack qty
11745873	Traceable™ fingertip timer	12 x 46 x 89	99 min. 59 sec.	1

## Timer, four-channel countdown alarm *fisherbrand* with stopwatch, Traceable™

- Numbered, quick-set keys make programming this multi-purpose timer easy
- Features: count up/down, time-out, alarm
- Numbered keys make it a breeze to set countdown time
- Timing capacity: 99 minutes, 99 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with clip, stand, magnet, opening for lanyard, battery, Traceable™ Certificate



Cat. No	Description	Includes	Resolution	Range	Alarm type	Pack qty
11512793	Traceable™ alarm timer/stopwatch	Easel stand, lapel clip, hole for lanyard and magnetic back, two-year silver-oxide battery, sturdy ABS plastic case	1 second	99 Hours 59 min. 59 sec.	Audible and visual	1

## Timer, instant recall memory, *fisherbrand* Traceable™

- Unique memory feature ideal for devotion of this timer to one type of laboratory equipment such as a water bath, oven, stirrer, or incubator
- Designed specifically for routine tests, quality control requirements and repetitive analysis
- Features: count down, time in/out, alarm, memory
- Intuitive, three-key programming makes this an all-time favourite for delivering countdown results
- Input a time and the instant memory always returns the display to the programmed time
- Extra large, 16mm high digits
- Timing capacity: 99 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with battery, Traceable™ Certificate



Cat. No	Description	Dimensions (l x w x h), mm	Alarm	Pack qty
11775873	Traceable™ instant-recall memory timer	64 x 57 x 19	30 sec. ring	1

## Timer, jumbo display, Traceable™

fisherbrand

- Read the large display from any angle
- Features: count up/down, time in/out, memory, alarm, 12/24 hour clock, stopwatch
- Adjustable dual/jumbo display from 90° to 180° tilt
- When zero is reached, distinct alarm sounds and timer counts up showing time elapsed since alarm
- Timing capacity: 23 hours, 59 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with battery, stand, wall-mount, Traceable™ Certificate



Cat. No	Description	Pack qty
11745759	Jumbo countdown timer	1

## Timer, lab-top, Traceable™

fisherbrand

- Lab-top timer is built expressly for bench use
- Innovatively designed display can be clearly seen from any angle
- Features count up/down, alarm, memory, clock, large keys
- Memory button stores most recently programmed time and provides quick access for repetitive tests
- Extra large keys
- Timing capacity: 23 hours, 59 minutes, 59 seconds, with resolution of 1 second and accuracy 0.01%
- Supplied with battery, Traceable™ Certificate



Cat. No	Description	Resolution	Dimensions, mm	Accuracy	Pack qty
11789795	Timer, lab-top, Traceable™	1 sec.	83 x 83 x 44	0.01%	1

## Timer, mini-alarm, 100-hour, Traceable™

fisherbrand

- Reliable unit delivers multiple functions for routine, everyday timing needs
- Features: count up/down, time in/out, memory, extra-loud alarm, clock
- Numbered keys make it simple to set countdown time
- When zero is reached, alarm sounds, TIME'S UP flashes/counts-up, shows time elapsed since alarm
- Timing capacity: 99 hours, 59 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with battery, magnetic back, flip-open stand, clip, opening for lanyard, Traceable™ Certificate



Cat. No	Description	Pack qty
11795863	Traceable™ 100-hour mini-alarm timer/stopwatch	1

## Timer, Nano™, Traceable™

fisherbrand

- Small design but with a large display, measuring 63.5 x 50.8 x 22.3mm
- Features countdown alarm time/stopwatch, count-up time, 12/24 hour clock
- Memory feature for repetitive use
- Two timing channels
- Back clip with magnet
- Timing capacity 23 hours, 59 minutes, 59 seconds
- Resolution 1 second, with accuracy 0.01%
- Supplied with battery, magnetic back, Traceable™ Certificate



Cat. No	Description	Pack qty
12695296	Traceable™ Nano™ timer	1

## Timer, Seymour Blue™ multi-coloured, Traceable™

fisherbrand

- Features: count up/down, time in/out, memories, alarm, 12/24 hour clock
- Three bright, colourful supplied frames permit personalisation of timer
- Unique memory returns channel to previously programmed setting at touch of a key
- Timing capacity: 99 hours, 59 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with bench stand, magnetic back, battery, Traceable™ Certificate



Cat. No	Description	Includes	Accuracy	Resolution	Range	Pack qty
11784426	Seymour Blue™ timer	Battery, easel bench stand, magnetic back	0.01%	1 sec.	99 Hours 59 min. 59 sec.	1

## Timer, three-channel alarm, Traceable™

fisherbrand

- Innovative timer has programmable alarm with adjustable volume control for any environment
- Features: count up/down, time in/out, memories, alarm, clock, adjustable alarm duration/volume
- Perfect timer to dedicate to repetitive tests
- Triple display shows three different times at once; tests can be started individually or simultaneously
- Adjustable volume alarm can be set to sound for 60 seconds or to sound continuously until turned off
- Timing capacity: 99 hours, 59 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with battery, Traceable™ Certificate



Cat. No	Description	Pack qty
11725863	Traceable™ three-channel alarm timer	1



## Timer, three-channel alarm, Traceable™

fisherbrand

- Unique, three-channel timer is perfect for use in all count-up/down timing combinations
- Features: clock, count up/down, alarm, stopwatch, memory
- Displays three different countdown times simultaneously
- Three unique channels may be started individually or concurrently
- Memories return the display to the previously programmed time
- Perfect timer to dedicate to a group of repetitive tests
- Alarm: sounds at zero, 'Time's Up' is displayed, timer begins counting up
- Chemical resistant ABS plastic case, magnetic back, flip open easel
- Timing capacity: 99 hours, 59 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with clip, stand, magnet, battery, Traceable™ Certificate



Cat. No	Description	Resolution	Includes	Alarm type	Pack qty
11597453	Traceable™ three-line alarm	1 sec.	Traceable Certificate, magnetic back, easel stand, and 1.5-year silver-oxide battery	Audible and visual	1

## Timer, triple-display, Traceable™

fisherbrand

- Triple-line display ideal for simultaneously timing three processes
- Features: count up/down, time in/out, memory, alarm, stopwatch, 12/24-hour clock
- Perfect timer for dedicating to a test requiring several independent time measurements
- Unique memory returns channel to previously programmed setting at touch of a key
- When zero is reached, distinct alarm sounds and timer counts up showing time elapsed since alarm
- Timing capacity: 19 hours, 59 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with battery, magnetic back, Traceable™ Certificate



Cat. No	Description	Includes	Alarm type	Pack qty
11705873	Traceable™ triple-display timer	Battery, magnetic back, Traceable™ Certificate	Extra loud alarm	1

## Timer, triple purpose, Traceable™

fisherbrand

- Functions as a count-down alarm timer, a stopwatch or as a 12/24 hour clock
- Big digits
- Always-ready memories on both countdown channels return display to previously programmed timing
- Timing capacity: 9 hours, 59 minutes, 59 seconds, with one second resolution and 0.01% accuracy
- Dimensions 76 x 63 x 25mm
- Supplied with battery, magnet, flip-open stand/clip, Traceable™ Certificate



Cat. No	Description	Pack qty
11507493	Traceable™ triple purpose timer	1

## Timer, two-memory, Traceable™

fisherbrand

- Delivers on-the-dot timing operations whether counting up or down from 23 hours, 59 minutes, 59 seconds
- Memory feature can perform countless repetitive tests
- Both countdown timing channels may be set to recall a specific time
- Accuracy 0.01% with resolution 1 second
- Double-line 10mm LCD display
- Distinct alarm for each channel, 1 minute, silenced automatically or manually
- Supplied with easel stand, clip, and magnetic back
- Dimensions 22.2 x 69.8 x 53.9mm
- Weight 54g



Cat. No	Description	Pack qty
11755863	Timer, two-memory, Traceable™	1

## Timer, water-resistant, Traceable™

fisherbrand

- Splash-proof, water-resistant timer ideal for wet labs, wash-down areas, manufacturing plants and outdoors field use
- Features: water-resistant, splash-proof, count up/down, alarm, lanyard
- When zero is reached a bright red LED flashes and an audible alarm sounds for one minute or until manually turned off
- Timing capacity: 99 minutes, 59 seconds
- Resolution: 1 second
- Accuracy: 0.01%
- Supplied with lanyard, suction cup, magnet, and Velcro™, battery, Traceable™ Certificate



Cat. No	Description	Includes	Resolution	Pack qty
11729805	Water resistant flashing timer	Lanyard, magnet, Velcro™ (to affix to surfaces), battery	1 sec.	1

## Tongs, crucible

fisherbrand

- For precise control of grasping, lifting, turning and transferring heat resistant and other materials in a laboratory environment



Cat. No	Description	Length, mm	Pack qty
<b>With bow</b>			
11562692	Nickel, flat hinge	150	1
11563492	Nickel, flat hinge	200	1
11552692	Mild steel, flat hinge	200	1
11553492	Stainless steel, flat hinge	200	1
<b>Without bow</b>			
11543492	Nickel, flat hinge	200	1
11593492	Stainless steel, straight flat hinge	150	1
11503502	Stainless steel, straight flat hinge	200	1



## LIQUID HANDLING

The Fisherbrand family of liquid handling products includes bottle top dispensers, standard Pasteur, serological or volumetric pipettes, as well as our Elite™ range of single or multichannel pipettors. Use our serological pipettes together with the new Fisherbrand motorised pipette filler or the universal pipette pumps, and to achieve optimal results always use our Elite™ pipettors with Fisherbrand SureOne™ pipettor tips.

### Dispensers, bottle top

- Excellent chemical compatibility
- Fully autoclavable
- Easy to calibrate
- Removable piston
- Springless precision valve mechanism
- Anti-drip cap
- Fits on most common sizes of bottle
- Traceability to an NABL accredited laboratory

*fisherbrand*



Cat. No	Volume, mL	Pack qty
<b>12867913</b>	0.25 to 2.5	1
<b>12877913</b>	0.5 to 5	1
<b>12887913</b>	1 to 10	1
<b>12897913</b>	2.5 to 30	1
<b>12807923</b>	5 to 60	1
<b>12817923</b>	10 to 100	1

### Dispensers, bottle top, with recirculation valve

For robust and reliable dispensing. These Fisherbrand™ bottle top dispensers have recirculation valves for re-directing the liquid into the bottle for bubble-free dispensing without any loss of reagent.

*fisherbrand*



- Adjustable delivery nozzle to facilitate dispensing in all laboratory conditions
- Specially designed volume adjustment knob, 180° rotation for easy and effortless volume setting
- Specially designed adaptor allows 360° rotation providing full flexibility
- Springless, PTFE valve manifold ensures high chemical compatibility and jamming free valve function
- PTFE piston with ETP O-ring ensures high chemical compatibility and smooth, effortless piston movement
- Adapters to fit most of the laboratory reagent bottles
- Calibration tool provided for convenient and quick in-lab user re-calibration
- Compatible with all reagents except HF

Cat. No	Volume, mL	Dispenser increments, mL	Accuracy	Pack qty
<b>15518901</b>	0.25 to 2.5	0.05	0.6% (±0.015)	1
<b>15538901</b>	0.5 to 5.0	0.1	0.6% (±0.030)	1
<b>15598891</b>	1.0 to 10	0.2	0.6% (±0.060)	1
<b>15528901</b>	2.5 to 3.0	0.5	0.6% (±0.180)	1
<b>15548901</b>	5.0 to 60	1.0	0.6% (±0.0360)	1
<b>15508901</b>	10.0 to 100	2.0	0.6% (±0.600)	1

### Dispenser tips

- Sterile and non-sterile options
- Disposable
- Range of capacities
- Graduated
- For use with Brand Handystep™, Handystep™ electronic, Eppendorf™ Multipette™ (not Multipette™ Plus), Gilson Distriman™, Ritter Ripette™ Tri-continent Easystep™

*fisherbrand*



Cat. No	Volume, mL	Sterile	Pack qty
<b>15163646</b>	0.1	N	100
<b>15113656</b>	0.1	Y	100
<b>15133646</b>	0.5	N	100
<b>15123656</b>	0.5	Y	100
<b>15153646</b>	1.25	N	100
<b>15143656</b>	1.25	Y	100
<b>15173646</b>	2.5	N	100
<b>15133656</b>	2.5	Y	100
<b>15143646</b>	5	N	100
<b>15153656</b>	5	Y	100
<b>15193646</b>	12.5	N	100
<b>15173656</b>	12.5	Y	100
<b>15163656</b>	25	Y	25
<b>15103656</b>	50	N	25
<b>15183656</b>	50	Y	25
Accessories			
<b>15193656</b>	Adapter, 20/50mL	N	10
<b>15103666</b>	Adapter, 20/50mL	Y	5

### Pipettes, bulb, soda lime glass, one mark Class AS

- Colour coded to BS 3996
- Blue ceramic graduations
- Batch certificate available

*fisherbrand*



Cat. No	Volume, mL	Tolerance, mL	Colour	Pack qty
<b>15227935</b>	1	±0.008	Blue	2
<b>15237935</b>	2	±0.010	Orange	2
<b>15247935</b>	5	±0.015	White	2
<b>15257935</b>	10	±0.020	Red	2
<b>15267935</b>	25	±0.030	Blue	2
<b>15277935</b>	50	±0.050	Red	2
<b>15287935</b>	100	±0.080	Yellow	2

## Pipettes, bulb, soda lime glass, one mark, BS 1583, Class B

- Colour coded to BS 3996
- Blue ceramic graduations

*fisherbrand*



Cat. No	Volume, mL	Tolerance, mL	Colour	Pack qty
11942168	1	±0.015	Blue	5
11952168	5	±0.03	White	5
11962168	10	±0.04	Red	5
11972168	25	±0.06	Blue	5
11982168	50	±0.10	Red	5

## Pipettes, straight, soda lime glass, graduated Type 2 Class B

- Blue ceramic graduations

*fisherbrand*



Cat. No	Volume, mL	Graduations, mL	Tolerance, mL	Pack qty
11932178	5	0.05	±0.20	5
11942178	10	0.1	±0.10	5
11952178	25	0.2	±0.20	5

## Pipettes, straight, soda lime glass, graduated Type 1 Class AS

- Blue ceramic graduations
- Batch certificate available

*fisherbrand*



Cat. No	Volume, mL	Graduations	Pack qty
15277925	1	0.01	2
15287925	2	0.02	2
15297925	5	0.05	2
15207935	10	0.10	2
15217935	25	0.10	2

## Pipettes, Pasteur, soda lime glass

*fisherbrand*

Soda lime glass open point pipettes



Cat. No	Length, mm	Type	Inner pack qty	Pack qty
11546963	150	Unplugged	250	1000
11566963	230	Unplugged	250	1000
11755108	270	Unplugged	250	1000
11506973	150	Plugged	250	1000
11765098	230	Plugged	250	1000
11795098	270	Plugged	250	1000

## Pipettes, transfer

*fisherbrand*

- Low density polyethylene
- Transparent
- Graduated or non-graduated
- Sterile options available
- Various packaging formats



## Pipettes, straight, soda lime glass, graduated Type 1 Class B

*fisherbrand*

- Blue ceramic graduations



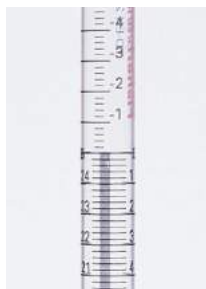
Cat. No	Volume, mL	Graduations, mL	Tolerance, mL	Pack qty
11992168	1	0.01	±0.01	5
11902178	5	0.05	±0.05	5
11912178	10	0.1	±0.10	5
11922178	25	0.2	±0.20	5

Cat. No	Description	Sterile	Length, mm	Drop volume, µL	Drops per mL	Pack qty
13469118	Transfer pipette PE, 1mL	No	104	33	30	400
13499108	Transfer pipette PE, 1mL, graduated	No	150	33	30	500
13439118	Transfer pipette PE, 1mL, graduated, extended tip	No	150	33	30	500
13489108	Transfer pipette PE, 1mL, graduated	Yes	150	33	30	500
13419118	Transfer pipette PE, 1mL, graduated, inner pack of 10	Yes	150	33	30	500
13429118	Transfer pipette PE, 1mL, graduated, inner pack of 20	Yes	150	33	30	500
13439108	Transfer pipette PE, 3mL, graduated	No	155	40	25	500
13469108	Transfer pipette PE, 3mL, graduated	Yes	155	40	25	500
13479108	Transfer pipette PE, 3mL, graduated, inner pack of 10	Yes	155	40	25	500
13409118	Transfer pipette PE, 3mL, graduated, inner pack of 20	Yes	155	40	25	500
13459118	Transfer pipette PE, 4mL, thin stem	No	150	33	30	500
13459108	Transfer pipette PE, 4mL	No	150	33	50	500
13449108	Transfer pipette PE, 7mL, extra long	No	300	50	20	100
13449118	Transfer pipette PE, 10mL, jumbo	No	170	56	18	200

## Pipettes, serological, polystyrene, with stripe

fisherbrand

- A black magnifier stripe runs lengthwise along the pipette making the meniscus obvious and reducing reading errors
- 5mL, 10mL, 25mL and 50mL sizes have both ascending and descending graduations
- Tip design on the 25mL and 50mL sizes increases the effect of surface tension to minimise dripping
- Individually wrapped: plastic/plastic or paper/plastic



Cat. No	Volume, mL	Graduations, mL	Colour	Pack qty
Pipettes, individually wrapped plastic/plastic				
11819660	1	0.01	Yellow	1000
11879650	2	0.01	Green	500
11829660	5	0.1	Blue	200
11839660	10	0.1	Orange	200
11517752	25	0.2	Red	200
11537752	50	0.5	Purple	100
Pipettes, individually wrapped paper/plastic				
11849181	1	0.01	Yellow	1000
11859181	2	0.01	Green	500
11869181	5	0.1	Blue	200
11879181	10	0.1	Orange	200
11839181	25	0.5	Red	200
11889181	50	0.5	Purple	100

## Pipettes, standard serological, polystyrene, no stripe

fisherbrand

- Ascending and descending graduations on all but the 1 and 2mL sizes
- Sterile and non-wettable pipettes
- Offer a tolerance of  $\pm 2\%$  at full volume and have plug-in mouth end
- Without magnifier stripe
- Recyclable outer packaging
- Bulk packed
- Each pipette lot is tested for sterility, accuracy and endotoxin level



Cat. No	Volume, mL	Graduations, mL	Colour	Inner pack qty	Pack qty
11879660	1	0.01	Yellow	50	1000
11889660	2	0.01	Green	50	500
11899660	5	0.1	Blue	50	500
11809670	10	0.1	Orange	25	500
11829670	50	0.5	Purple	25	100

## Pipette controller filler

fisherbrand

- Durable and reliable large capacity controller limits overaspiration
- Works with both glass and plastic pipettes from 0.1 to 100mL
- Includes blow-out bulb for use with blow-out pipettes
- Hydrophobic membrane filter reduces penetration by liquids
- Allows aspiration up to 50mL with one compression
- Fill rate is continuously variable with the pipetting lever
- Lever provides simple discharge
- Valve system is designed so flow rate does not affect accuracy
- Chemical-resistant and autoclavable



Cat. No	Colour	Autoclavable	For use with	Pack qty
15219805	White	Yes	Plastic or glass pipettes	1

## Pipette filler, motorised

fisherbrand

- For glass and plastic pipettes from 0.1 to 200mL
- Ergonomic handgrip
- Variable speed with two pipette buttons
- Safety valve
- NiMH battery, 2.4V, 700mAh
- Recharging indicator LED



Cat. No	Description	Pack qty
15249805	Motorised pipette filler	1

## Pipette pumps, universal

fisherbrand

- Easy one-hand operation provides accurate titration
- Made from high-grade polyethylene
- Accepts glass and serological pipettes
- Ideal for soap and acid titrations
- Clear markings make measuring easy
- 10mL pump is marked in 0.10mL increments
- 25mL pump is marked in 0.20mL increments
- Rotating thumbwheel draws or dispenses liquid
- Side lever allows entire contents to be rapidly dispensed
- 25mL pump fits both 10mL and 25mL pipettes

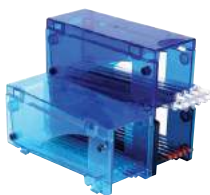


Cat. No	Description	Pack qty
15209805	Blue 2mL	1
15239805	Green 10mL	1
15229805	Red 25mL	1

## Pipette rack, stackable

- Ideal for storing and organising serological pipettes
- Angled shelves store 1.0mL to 50mL pipettes within easy reach
- Click together to horizontally or lock in place with top connectors
- Protective lid to prevent dust build up
- Magnets on both sides of the unit connect securely and safely to metal surfaces
- Material: acrylonitrile butadiene styrene (ABS)
- Supplied as three compartments with three lids

fisherbrand



Cat. No	Dimensions (l x w x h), mm	Pack qty
11958004	286 x 301 x 127.5	3

## Pipettors, variable multichannel, Elite™

fisherbrand

- Fully autoclavable
- Extremely low plunger forces means that you can work longer without fatigue and reduce the risk of RSI
- Soft touch tip ejection gearing mechanism reduces tip ejection force by up to 50%
- Ergonomic and comfortable lightweight handle
- Optimal fit with Fisherbrand SureOne™ pipettor tips
- Super blow out piston creates 150% bigger air push than conventional piston ensuring delivery of microsize drops



Cat. No	Volume range, µL	Pack qty
Eight channel		
11815772	1 to 10	1
11835772	5 to 50	1
11825772	10 to 100	1
11845772	30 to 300	1
Twelve channel		
11855772	1 to 10	1
11875772	5 to 50	1
11865772	10 to 100	1
11885772	30 to 300	1

## Pipettors, variable single channel, Elite™

fisherbrand

- Classic single channel, manual adjustable pipettors
- Available in a range of dispensing volume ranges
- Ergonomically designed, comfortable pipetting
- Low pipetting and tip ejection forces reducing RSI risks
- Autoclavable at 121°C (20 min) without disassembly
- Optimal fit with Fisherbrand SureOne™ pipettor tips



Cat. No	Description	Pack qty
11815762	Elite pipettor, 0.2µL to 2µL	1
11825762	Elite pipettor, 0.5µL to 5µL	1
11835762	Elite pipettor, 1µL to 10µL	1
11845762	Elite pipettor, 2µL to 20µL	1
11855762	Elite pipettor, 5µL to 50µL	1
11865762	Elite pipettor, 10µL to 100µL	1
11875762	Elite pipettor, 20µL to 200µL	1
11885762	Elite pipettor, 100µL to 1000µL	1
11895762	Elite pipettor, 500µL to 5,000µL	1
11805772	Elite pipettor, 1000µL to 10,000µL	1

## Pipettor kits, Elite™

fisherbrand

- All the quality of the Elite™ range in a convenient kit of four popular pipettor sizes (0.2-2µL, 2-20µL, 20-200µL, 100-1000µL)
- Supplied with a robust stand



Cat. No	Description	Includes	Pack qty
15268638	Elite kit 4	Four pipette sizes (0.2-2µL, 2-20µL, 20-200µL, 100-1000µL) and stand	1

fisherbrand

Focus on Fisherbrand

for all your **filtration** needs



For full range refer to  
[www.eu.fishersci.com/go/fisherbrand](http://www.eu.fishersci.com/go/fisherbrand)

**fisher**scientific  
 by Thermo Fisher Scientific

## Pipettor tips, standard, universal fit, SureOne™

*fisherbrand*

- Fisherbrand SureOne™ pipettor tips are a comprehensive line of universal fit pipettor tips, available in a range of volumes from 5µL to 10mL, in bulk, racked, sterile racked or the environmentally friendly reload system
- Compatible with most popular brands of pipettor, SureOne™ achieves optimal fit with Fisherbrand Elite™ pipettors
- Autoclavable
- Non-sterile products - certified to be free of RNase/DNase and DNA
- Sterile products - e-beam sterile products are certified to be free of RNase/DNase, pyrogen, bioburden, PCR\* inhibitors and endotoxins

Cat. No	Volume, µL	Pack type	Colour	Inner pack qty	Pack qty
<b>5µL nano micropoint tip, graduated at 2.5µL</b>					
<b>11987724</b>	0.1 to 5	Bulk	Clear	-	1000
<b>11997724</b>	0.1 to 5	Racked	Clear	96	960
<b>11907734</b>	0.1 to 5	Racked sterile	Clear	96	960
<b>11997714</b>	0.1 to 5	Filtered sterile reload	Clear	96	960
<b>10µL micropoint tip, graduated at 2µL</b>					
<b>11933416</b>	0.1 to 10	Bulk	Clear	-	1000
<b>11953416</b>	0.1 to 10	Racked	Clear	96	960
<b>10053014</b>	0.1 to 10	Racked sterile	Clear	96	960
<b>11973416</b>	0.1 to 10	Reload	Clear	96	960
<b>11903466</b>	0.1 to 10	Filtered sterile	Clear	96	960
<b>11907724</b>	0.1 to 10	Filtered sterile reload	Clear	96	960
<b>10µL extended length micropoint tip, graduated at 2.5µL</b>					
<b>11983416</b>	0.1 to 10	Bulk	Clear	-	1000
<b>11588402</b>	0.1 to 10	Racked	Clear	96	960
<b>10527014</b>	0.1 to 10	Racked sterile	Clear	96	960
<b>11967714</b>	0.1 to 10	Reload	Clear	96	960
<b>11913466</b>	0.1 to 10	Filtered sterile	Clear	96	960
<b>11917724</b>	0.1 to 10	Filtered sterile reload	Clear	96	960
<b>20µL universal bevelled tip (use Cat. No 11983456 20µL to 300µL empty rack box for reloads)</b>					
<b>11933426</b>	2 to 20	Filtered sterile	Clear	96	960
<b>11937724</b>	2 to 20	Filtered sterile reload	Clear	96	960
<b>100µL universal bevelled tip</b>					
<b>11953466</b>	10 to 100	Filtered sterile	Clear	96	960
<b>11947724</b>	10 to 100	Filtered sterile reload	Clear	96	960
<b>200µL universal bevelled tip</b>					
<b>11933426</b>	1 to 200	Bulk	Clear	-	1000
<b>10678325</b>	1 to 200	Racked	Clear	96	960
<b>11963426</b>	1 to 200	Racked sterile	Clear	96	960
<b>11578412</b>	1 to 200	Reload	Clear	96	960
<b>10124314</b>	1 to 200	Bulk	Yellow	-	1000
<b>11983426</b>	1 to 200	Racked	Yellow	96	960
<b>11903436</b>	1 to 200	Racked sterile	Yellow	96	960
<b>11913436</b>	1 to 200	Reload	Yellow	96	960
<b>200µL universal thin wall micropoint tip</b>					
<b>11538422</b>	1 to 200	Bulk	Clear	-	1000
<b>11933436</b>	1 to 200	Racked	Clear	96	960
<b>11943436</b>	1 to 200	Racked sterile	Clear	96	960
<b>11953436</b>	1 to 200	Reload	Clear	96	960
<b>11963436</b>	1 to 200	Bulk	Yellow	-	1000
<b>11973436</b>	1 to 200	Racked	Yellow	96	960
<b>11983436</b>	1 to 200	Racked sterile	Yellow	96	960
<b>11993436</b>	1 to 200	Reload	Yellow	96	960
<b>200µL universal bevelled tip, graduated at 10µL, 50µL and 100µL</b>					
<b>11943446</b>	1 to 200	Bulk	Clear	-	1000
<b>11953446</b>	1 to 200	Racked	Clear	96	960
<b>11963446</b>	1 to 200	Racked sterile	Clear	96	960
<b>12922521</b>	1 to 200	Reload	Clear	96	960
<b>11903446</b>	1 to 200	Bulk	Yellow	-	1000
<b>11913446</b>	1 to 200	Racked	Yellow	96	960
<b>11923446</b>	1 to 200	Racked sterile	Yellow	96	960
<b>11933446</b>	1 to 200	Reload	Yellow	96	960
<b>200µL universal micropoint tip, graduated at 10µL, 50µL and 100µL</b>					
<b>11957724</b>	20 to 200	Filtered, sterile, reload	Clear	96	960
<b>300µL universal bevelled/micropoint tip, graduated at 10µL, 50µL, 100µL and 200µL</b>					
<b>11993446</b>	5 to 300 bevelled tip	Bulk	Clear	-	1000
<b>11903456</b>	5 to 300 bevelled tip	Racked	Clear	96	960
<b>10003414</b>	5 to 300 micropoint tip	Racked sterile	Clear	96	960
<b>11538442</b>	5 to 300 micropoint tip	Reload	Clear	96	960
<b>1000µL universal micropoint tip, graduated at 100µL, 200µL, 500µL and 1000µL</b>					
<b>11973466</b>	100 to 1000	Filtered sterile	Clear	96	960
<b>11977724</b>	100 to 1000	Filtered sterile reload	Clear	96	960
<b>1250µL universal micropoint tip, graduated at 100µL, 200µL, 500µL and 1000µL</b>					
<b>11548442</b>	100 to 1250	Bulk	Clear	-	1000
<b>11568442</b>	100 to 1250	Racked	Clear	96	960
<b>10164694</b>	100 to 1250	Racked sterile	Clear	96	960
<b>11588442</b>	100 to 1250	Reload	Clear	96	960
<b>11963466</b>	100 to 1250	Filtered, bulk	Clear	-	1000
<b>10778535</b>	100 to 1250	Bulk	Blue	-	1000
<b>10537014</b>	100 to 1250	Racked	Blue	96	960
<b>10492725</b>	100 to 1250	Racked sterile	Blue	96	960
<b>11963456</b>	100 to 1250	Reload	Blue	96	960

## Pipettor tip reload racks, empty, SureOne™

*fisherbrand*

- For use with Fisherbrand SureOne™ universal pipettor tips



Cat. No	Description	Pack qty
<b>11973456</b>	SureOne empty rack boxes for reloads of 10µL to 20µL tips	10
<b>11983456</b>	SureOne empty rack boxes for reloads of 20µL to 300µL tips	10
<b>11993456</b>	SureOne empty rack boxes for reloads of 1250µL tips	10

## Pipettor tips, macrovolume, SureOne™

*fisherbrand*

- For use with large volume pipettors



Cat. No	Volume, µL	Colour	Pack type	Description	Pack qty
<b>11997744</b>	250 to 2500	Clear	Bulk	Fits with Eppendorf™ and Biohit™ style pipettors	500
<b>11987744</b>	250 to 2500	Clear	Bulk	Fits with Rainin EDP2™	500
<b>11648138</b>	1000 to 5000	Clear	Bulk	Fits with Eppendorf™ and Biohit™ style pipettors	250
<b>11937754</b>	1000 to 5000	Clear	Bulk	Fits with Fisherbrand™ Elite™ and Finnpiptette™ style pipettors	250
<b>11947754</b>	1000 to 10000	Clear	Bulk	Fits with Gilson style pipettors	200
<b>11957754</b>	1000 to 10000	Clear	Bulk	Fits with Fisherbrand™ Elite™ and Finnpiptette™ style pipettors	100

## Pipettor tips, gel loading, SureOne™

*fisherbrand*

- Fisherbrand SureOne™ gel loading pipettor tips supplied bulk and racked
- Non-sterile products - certified to be free of RNase/DNase and DNA
- Sterile products - e-beam sterile and certified to be free of RNase/DNase, pyrogen, bioburden, PCR\* inhibitors and endotoxins
- Compatible with most popular brands of pipettor, SureOne™ achieves optimal fit with Fisherbrand™ Elite™ pipettors



Cat. No	Volume, µL	Sterile	Filtered	Pack type	Inner pack qty	Pack qty
<b>11967734</b>	1 to 200	No	No	Bulk	204	1020
<b>11927734</b>	1 to 200	No	No	Bulk	-	1000
<b>11937734</b>	1 to 200	No	No	Racked	96	960
<b>11367801</b>	1 to 200	Yes	No	Racked	96	960

\*Polymerase Chain Reaction (PCR) is a process covered by patents owned by Hoffmann-La-Roche



## Pipettor tips, speciality, universal fit SureOne™

fisherbrand

- Fisherbrand™ SureOne™ speciality pipettor tips include extended length tips and large orifice tips, in bulk, racked and sterile racked packaging
- Non-sterile products - certified to be free of RNase/DNase and DNA
- Sterile products - e-beam sterile and certified to be free of RNase/DNase, pyrogen, bioburden, PCR\* inhibitors and endotoxins
- SureOne™ universal fit speciality pipettor tips are compatible with most popular brands of pipettor (optimal fit with Fisherbrand Elite™ pipettor)



## Reagent reservoir, dual solution

fisherbrand

For use with multichannel pipettors. Polypropylene solution/reagent reservoir that has a standard 50mL basin one side and 12 individual 5mL basins on the other. Wells are angled both downward and outward to allow maximum recovery of liquids. Imprinted indices identify samples and a loose lid helps prevent evaporation or contamination. Packs contain reservoirs and lids.



Cat. No	Description	Pack qty
11978084	Reagent reservoir, 1 x 50mL and 12 x 5mL basins	25

## Reagent reservoirs, disposable

fisherbrand

- Disposable reagent reservoirs for use with single or multichannel pipettors
- Can hold up to 100mL
- Clear PVC or white polystyrene
- Available in sterile or non-sterile packs



Cat. No	Volume, mL	Description	Sterile	Material	Pack qty
12369175	50	Clear	No	PVC	100
12399175	100	Natural	Yes	PS	200

fisherbrand

## Focus on Fisherbrand



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## MICROSCOPY

Fisherbrand microscopes are perfect for educational or research use, and in this section you will also find slides, coverslips, slide dispensers, slide boxes, storage racks and slide mailers as part of the wider Fisherbrand microscopy range.

### Microscopes, for research

*fisherbrand*

- Ergonomically designed; professional frame with low position coaxial focusing allows one handed operation, making extended use comfortable
- Adjustable 3W LED illumination
- Built-in low drive mechanical stage with extended post for X and Y control (135mm x 140mm)
- 18mm eyepieces with rubber eyeshields
- 30° inclined ergonomic Siedentopf viewing head
- Choice of optical objectives, with a wide range of magnification: 4x, 10x, 40x, 100x
- Interpupillary distance, mm: 55 to 75
- Inclination: 30° inclined
- Eyepieces: WF 10x/18mm
- Revolving nosepiece: four positions
- All models are supplied with universal power adapter
- Two year warranty for electrical parts (except bulbs, cords and fuses), five year warranty for optical and mechanical parts



Cat. No	Objective types	Optical heads	Pack qty
15398824	Achromatic	Binocular head, Siedentopf	1
15328834	Super high contrast	Binocular head, Siedentopf	1
15358834	Plan	Binocular head, Siedentopf	1
15308834	Achromatic	Trinocular head, Siedentopf	1
15338834	Super high contrast	Trinocular head, Siedentopf	1
15378834	Plan	Trinocular head, Siedentopf	1

### Microscopes, monocular, for education

*fisherbrand*

- These upright biological microscopes are an ideal way to introduce students to the world of microscopy
- High quality optics, made out of 100% optically coated glass, ensure a crisp and clear image
- You can choose between the innovative cordless LED illumination, which produces no heat, or the standard tungsten lighting system
- Objective magnification achromat DIN 4x, 10x, 40x
- Durable all-metal construction guarantees long lifetime
- Two year warranty for electrical parts (except bulbs, cords and fuses), five year warranty for optical and mechanical parts



Cat. No	Description	Illumination type	Plug type	Pack qty
15234878	Microscope SFC-100FL	Tungsten 20W	EU Plug	1
15244878	Microscope SFC-100FLED cordless	LED	EU Plug	1
15374398	Microscope SFC-100FL	Tungsten 20W	UK Plug	1
15384398	Microscope SFC-100FLED cordless	LED	UK Plug	1

### Microscopes, stereo, for education

*fisherbrand*

- These stereo microscopes are specially designed and developed for the learning environment
- Choose between models with innovative cordless LED illumination, making your images brighter and sharper with 'cool' light, or the conventional tungsten lighting system
- Widefield eyepieces WF10X/20mm
- Objective turret magnification changer (2X, 4X)
- Both models are supplied with universal power adapter
- Two year warranty for electrical parts (except bulbs, cords and fuses), five year warranty for optical and mechanical parts



Cat. No	Description	Pack qty
15254878	Stereo microscope ST-30C-6LED, LED illumination	1
11702656	Stereo microscope ST-30C-2LOO, tungsten illumination	1

### Microscope cameras

- Designed to fit the eyepiece tube of most standard microscopes
- Moticam cameras come complete with Motic Images plus 2.0 Software for use with PC or Mac™ for still image or video capture, annotation, editing and measuring
- Driver installs automatically in Windows Vista and higher
- The Moticam 1 camera is used for schools and small laboratories. With its live resolution, these cameras are ideal for integrated classroom teaching



Cat. No	Description	Pack qty
12684257	Digital microscope camera, Moticam 1800 x 600 pixels	1
13523900	Digital microscope camera, 1.3MP	1
13243769	Digital microscope camera, 2MP	1
11803410	Adapter, C-Mount 0.5X	1
11893400	Adapter, TV/C 2/3	1

### Microscope accessories

Cat. No	Description	Pack qty
11847724	Quartz halogen lamp, 6V 30W	1
11843400	Eyepiece micrometer, 100 divisions per 10mm	1

### Microscope slides

*fisherbrand*

- Washed and polished glass slides with 90° ground edge
- Dimensions 76mm x 26mm
- Available plain or twin frosted
- Ground on all four edges
- Wrapped in cellophane for improved cleanliness



Cat. No	Thickness, mm	Pack qty
<b>Plain</b>		
12373118	0.8 to 1	50
12383118	1.0 to 1.2	50
12393118	1.2 to 1.5	50
<b>Twin frost</b>		
11562203	0.8 to 1	50
11572203	1.0 to 1.2	50

## Microscope, cover slips

*fisherbrand*

- Manufactured from clear white borosilicate glass
- Square or round shape
- No. 1: 0.13mm to 0.17mm
- No. 1½: 0.16mm to 0.19mm
- Packed in plastic boxes to prevent breakage



Cat. No	Dimensions, mm	Pack qty
<b>No. 1 squares</b>		
<b>12323128</b>	18 x 18	200
<b>12333128</b>	22 x 22	200
<b>12343128</b>	22 x 26	200
<b>12353128</b>	22 x 32	100
<b>12363128</b>	22 x 40	100
<b>12373128</b>	22 x 50	100
<b>11338503</b>	24 x 24	200
<b>12393128</b>	24 x 32	100
<b>11348503</b>	24 x 32	100
<b>No. 1 circles</b>		
<b>12313138</b>	16	200
<b>12323138</b>	19	200
<b>12333138</b>	22	200
<b>No. 1½ squares</b>		
<b>12343138</b>	18 x 18	200
<b>12353138</b>	20 x 20	200
<b>12363138</b>	22 x 22	200
<b>12383138</b>	22 x 50	100
<b>12393138</b>	24 x 24	200
<b>No. 1½ circles</b>		
<b>12323148</b>	16	100
<b>11507323</b>	22	5

## Microscope slide boxes

*fisherbrand*

- Moulded, rigid boxes securely hold standard microscope slides in grooved slots
- Boxes hold 25 to 100 standard slides
- Durable ABS case available lined or unlined
- Slots and lining are numbered to correspond to slide inventory sheet
- Variety of lid closure types
- Stackable cases include feet for maximum stability



Cat. No	Description	Lining	Capacity, slides	Colour	Pack qty
<b>11314135</b>	Push-fit lid	Cork	25	Blue	1
<b>11324135</b>	Push-fit lid	Cork	25	Green	1
<b>11334135</b>	Push-fit lid	Cork	25	Red	1
<b>11354135</b>	Push-fit lid	Cork	25	White	1
<b>11731486</b>	Thumb latch lock	Cork	50	Blue	1
<b>11771486</b>	Thumb latch lock	Cork	50	Red	1
<b>11781486</b>	Thumb latch lock	Cork	50	White	1
<b>11314145</b>	Nickel plated clasp	Cork	100	Blue	1
<b>11324145</b>	Nickel plated clasp	Cork	100	Green	1
<b>11334145</b>	Nickel plated clasp	Cork	100	Red	1
<b>11344145</b>	Nickel plated clasp	Cork	100	Yellow	1
<b>11354145</b>	Nickel plated clasp	Cork	100	White	1
<b>11364145</b>	Nickel plated clasp	Cork	100	Grey	1
<b>11374145</b>	Nickel plated clasp	Cork	100	Black	1
<b>11741476</b>	Hinged lid	Unlined	25	Blue	1
<b>11751476</b>	Hinged lid	Unlined	25	Red	1
<b>11761476</b>	Hinged lid	Unlined	25	White	1
<b>11771476</b>	Hinged lid	Unlined	100	Blue	1
<b>11781476</b>	Hinged lid	Unlined	100	Red	1
<b>11791476</b>	Hinged lid	Unlined	100	White	1
<b>11701486</b>	Nickel plated clasp	Foam lined	100	Blue	1
<b>10428241</b>	Nickel plated clasp	Foam lined	100	Green	1
<b>11711486</b>	Nickel plated clasp	Foam lined	100	Red	1
<b>11394135</b>	Nickel plated clasp	Foam lined	100	Yellow	1
<b>11721486</b>	Nickel plated clasp	Foam lined	100	White	1

## Lens cleaning tissues

*fisherbrand*

- High quality lens cleaning tissues
- Very fine paper
- Non-scratching



Cat. No	Format	Weight	Dimensions, mm	Pack qty
<b>15555669</b>	Sheets	13g/m <sup>2</sup>	80 x 100	50
<b>15609504</b>	Sheets	13g/m <sup>2</sup>	95 x 135	50
<b>15545669</b>	Sheets	12g/m <sup>2</sup>	100 x 150	625

## Microscope slide cabinets

*fisherbrand*

- High-strength steel drawers
- Each drawer holds up to 100 four-place microscope slide holders (available separately)
- Includes inside door stop to prevent spills, lock compressor to keep slide holders in place
- Grey enamel finish
- With interlocking mating slots for stacking as a modular storage system
- Equipped with rubber feet for placement on lab bench



Cat. No	Description	Dimensions, external (w x d x h), mm	Pack qty
<b>11794356</b>	Slide holder cabinet (one drawer)	128 x 165 x 413	1
<b>Accessories</b>			
<b>11784356</b>	Slide holder for slide cabinet, cardboard, four-place, with index tabs		1
<b>11774356</b>	Slide holder for slide cabinet, cardboard, four-place, with index tabs, plus plastic filing box		1

## Microscope slide folders, cardboard

*fisherbrand*

- Store and transport standard sized microscope slides (25 x 75mm) in these sturdy cardboard folders
- Folders feature recessed slots that protect specimens and thumb cuts for easy slide access and removal
- Ideal for short-term storage or slide transport
- Folder cover includes a number slide identification sheet
- Disposable folders are available in several sizes and different colours



Cat. No	Slide capacity	Colour	Pack qty
11703217	20 place	Natural	1
11790465	20 place	Blue	1
12942071	20 place	Green	1
11713217	30 place	Black	1

## Microscope slide folder rack

*fisherbrand*

- Unique rack allows the easy storage and retrieval of five 20 place slide folders (e.g. Cat. No 11703217)
- Stackable with folder identification clasps for reference and quick retrieval
- Ideal for room temperature or refrigerator storage of samples
- Dimensions (l x w x h), mm: 226 x 340 x 125



Cat. No	Description	Pack qty
11720594	Storage tray rack for microscope slide folders	1

## Microscope slide holders

*fisherbrand*

- Chemical-resistant high-density polyethylene holder
- Microscope slide holders for standard slides (76mm x 26mm)
- These 40 and 90 place slide holders are ideal for drying slides
- 10° slot angle facilitates clear viewing of desired slide



Cat. No	Dimensions, external (w x d x h), mm	Holds	Pack qty
11937984	105 x 24 x 31	40 slides	1
11947984	299 x 178 x 21	90 slides	1

## Microscope slide staining tray

*fisherbrand*

- Stain, rinse and dry slides on a single working tray
- Disposable microscope slide staining trays and lid (pack includes four base trays and one lid)
- Each tray holds up to eight slides and the deep well holds up to 38mL
- Compact size and recessed handles for easy transport
- Dark lid protects slides for light sensitive applications
- Disposable



Cat. No	Description	Colour	Dimensions (l x w x h), mm	Pack qty
11968004	Eight slide tray set	Black	305 x 127 x 29.5	4

## Microscope slide mailer, polypropylene, two place

*fisherbrand*

- Polypropylene protectors hold two standard slides securely
- Large, easy to secure snap closures safe storage for valuable slides
- Variety of colours for coding
- Disposable



Cat. No	Description	Dimensions (l x w x h), mm	Pack qty
11745088	Two place slide mailer, assorted colours (red, yellow, blue, purple, orange)	93 x 68 x 5	25
11755088	Two place slider mailer, natural	93 x 68 x 5	25

## Microscope slide mailers, polypropylene, five place

*fisherbrand*

- Polypropylene protectors hold five standard slides securely
- Inside wall features slotted channels to keep slides separated and to make removal easier
- Disposable



	Cat. No	Description	Dimensions, mm	Pack qty
1	11714316	Five place slide mailer, natural, side open	43 x 24 x 88	25
2	11725515	Five place side mailer, natural, end opening	43 x 24 x 88	25

## MIXING, STIRRING AND HEATING

Mix, shake, stir, rock and heat your samples with our flexible and adaptable range of stirrers, hotplates, hotplate stirrers, vortex mixers, shakers and rotators.

### Bottle roller, digital, CO<sub>2</sub> and humidity resistant *fisherbrand*

These sleek and compact bottle/tube rollers are capable of rolling multiple sizes of tubes or bottles. Adjustable digital speed control accommodates a variety of applications.



- Anti-corrosive and wear resistant construction enables use in humid and CO<sub>2</sub> environments
- Adjustable rollers accommodate a variety of tube/bottle sizes
- Stacking kit allows you to stack units two high, saving valuable bench space
- Optional remote control facilitates operating unit while in incubator and adds timer function
- Includes 'O' rings for smooth rolling of 15mL or 50mL tubes
- Applications:
  - Cell culture
  - Hybridisation assays
  - Liquid mixing
  - Bioproduction
- Warranty: Two years

Cat. No	Description	Pack qty
<b>15376617</b>	Fisherbrand bottle/tube roller, variable speed, digital	1
<b>Optional accessories:</b>		
<b>15386617</b>	Additional rollers	2
<b>15316627</b>	Stacking kit	4
<b>15326627</b>	Remote control	1

### Magnetic stirrers, RT Basic *fisherbrand*

- Economical magnetic stirrers in a range of sizes
- Not heated
- Low profile lightweight design with small footprint
- Strong magnetic coupling to ensure consistent stirring during experimental procedures
- Speed control 150 to 2500rpm
- Two non-slip silicone plate covers included with all units (one white, one black)
- Warranty: Two years



Cat. No	Description	Top plate dimensions, mm	Stirring capacity, L	Pack qty
<b>15336607</b>	RT basic stirrer	120	2	1
<b>15346607</b>	RT basic stirrer	170	4	1
<b>15356607</b>	RT basic stirrer	220	5	1
<b>Accessories</b>				
<b>15396607</b>	Non-slip silicone plate cover for 15336607 (white, diameter 120mm)			1
<b>15316617</b>	Non-slip silicone plate cover for 15346607 (white, diameter 170mm)			1
<b>15326617</b>	Non-slip silicone plate cover for 15356607 (white, diameter 220mm)			1

### Magnetic stirrer, ultra-thin design *fisherbrand*

- Ultra thin, flat, magnetic stirrer just 12mm high
- Stylish design with modern magnetic coil technology
- Variable speed setting from 15 to 1500 rpm with pulse function
- Anti-skid pads for stability
- Simple control panel with easy-to-use interface
- Speed indicator during operation
- Wearfree drive (no moving parts) so maintenance free
- Plate and casing made from chemically resistant materials
- Stir bar docking location to place or attach magnetic stir bar
- Power supply - supplied with UK and EU adapter
- Capacity, mL: 800
- Warranty: One year



Cat. No	Description	Pack qty
<b>15361901</b>	Ultra thin magnetic stirrer	1

### Magnetic stirrers, mini *fisherbrand*

- Lightweight stirrers in a range of eye-catching designs
- Capable of stirring up to 1L at up to 2000rpm
- Manufactured from a tough polypropylene with a clear, chemically resistant polycarbonate top
- With instructions, stir bar and power adapter
- Biocode antimicrobial protection
- Warranty: One year



Cat. No	Description	Pack qty
<b>11577493</b>	Basic mini stirrer 'Fisherbrand'	1
<b>11597493</b>	Basic mini stirrer 'caffeine'	1
<b>11507503</b>	Basic mini stirrer 'alchemist'	1
<b>11517503</b>	Basic mini stirrer 'DNA'	1
<b>11527503</b>	Basic mini stirrer 'periodic table'	1
<b>11537503</b>	Basic mini stirrer 'white crystal'	1

### Magnetic stir bar set, PTFE, cylindrical *fisherbrand*

- Set of 16 cylindrical followers
- Supplied a compartmented box
- Set comprises two each of the following sizes: 10mm x 6mm, 15mm x 4.5mm, 20mm x 6mm, 25mm x 6mm, 30mm x 6mm, 40mm x 8mm, 60mm x 10mm, 70mm x 10mm



Cat. No	Description	Pack qty
<b>10226853</b>	Magnetic followers, PTFE, cylindrical (set of 16)	1 set



## Magnetic stir bars, PTFE, centre pivot ring

fisherbrand

- Provides stable stirring action
- Stir bars with pivot rings are ideal for containers with uneven or unusual bottom surfaces and shapes
- Flat surfaces provide a greater mixing action
- Autoclavable
- White PTFE encapsulated Alnico V magnet core



Cat. No	Diameter, mm	Length, mm	Pack qty
11587802	4.5	12	5
11597802	6	20	5
11507812	6	25	5
11517812	6	35	5
11527812	8	40	5
11537812	8	45	5
12641156	8	50	5
10018131	10	60	1
10373592	10	70	1

## Magnetic stirring bar restrainers

fisherbrand

- Fits ergonomically in one hand
- Restrainers retain and secure the stirring bar in position
- Eliminate hazard caused with stir bar splashes when decanting mixing vessels
- After the vessel is drained, the confined stirring bar is securely retrieved from the vacant container without contaminating the solution
- Fabricated with simple-to-clean durable polystyrene
- Houses strong magnet that restrains magnetic stirring bars up to 80mm long



Cat. No	Description	Pack qty
11532912	Magnetic follower restrainer	1

## Microplate shaker

fisherbrand

- Designed for convenience and flexibility
- Variable shaking speed 150 to 1000rpm
- Quick and easy fitting of up to four standard size microplates
- Includes four-place microplate clamps on aluminium platform
- Continuous or timed operation, with automatic switch off
- Display will show last used settings, even after power has been turned off
- Operating temperature of 5 to 40°C allows for use in refrigerators, cold rooms and non-CO<sub>2</sub> incubators
- Applications include immunoassays, ELISA's, denaturation of nucleic acids and proteins, staining and blotting
- Warranty: Two years



Cat. No	Description	Pack qty
15504070	Microplate shaker 150-1000rpm 100-240V, EU & UK plug	1
<b>Accessories</b>		
15594110	Fixed tube rack 40 x 14mm dia.	1
15504120	Fixed tube rack 40 x 16mm dia.	1
15514120	Adjustable tube rack 40 x 14mm dia.	1
15524120	Adjustable tube rack 40 x 16mm dia.	1

## Mini tube rotator

fisherbrand

- Small footprint fits easily into refrigerators and non-CO<sub>2</sub> incubators
- Digital rpm display with quiet operation
- Paddles are easily adjustable/interchangeable - each can be adjusted from 0-90°
- Achieve more effective mixing with 'agitation' mode
- Agitation will occur at every 40 degrees in the rotation cycle. The combination of rotation and oscillation provides more effective mixing
- Unit includes 2 x 10mL/15mL tube-holding paddles, 2 x 5mL/7mL paddles, 2 x 1.5mL/2mL paddles, 1 x 50mL paddle
- Wide range of additional accessories available
- Applications across a broad spectrum of scientific disciplines including but not limited to molecular biology, clinical, and biochemistry
- Warranty: Two years



Cat. No	Description	Pack qty
15534080	Mini tube rotator 10-40rpm 100-240V, EU & UK plug	1
<b>Accessories for mini tube rotator</b>		
15554140	Two paddles for 0.5mL/0.8mL tubes	2
15544140	Two paddles for 1.5mL/2mL tubes	2
15534140	Two paddles for 5mL/7mL tubes	2
15524140	Two paddles for 10mL/15mL tubes	2
15564140	Paddle for 50mL tubes	1

## Multi-purpose tube rotator

fisherbrand

The Fisherbrand multipurpose tube rotator offers flexibility with multiple carousel options, adjustable speed, and an angled head for added versatility.

- Digital microprocessor control
- Wide range of accessory carousel options for maximum versatility
- Adjustable speed from 5-80rpm
- Adjustable angled head offers mixing angles from 95 to 180°
- Timer features both time up and time down counting modes
- Display will show last used settings, even after power has been turned off
- Warranty: Two years



Cat. No	Description	Pack qty
15524080	Tube rotator, with five-place tube carousel for 50mL tubes, EU & UK plug	1
<b>Accessories for multi-purpose tube rotator</b>		
15554090	50 place tube carousel for 1.5/2.0mL tubes	1
15564090	30 place tube carousel for 15mL tubes	1
15574090	15 place tube carousel for 50mL tubes	1
15584090	10 and 20 place tube carousel for 10-15mL and 5-7mL tubes	1
15594090	64 place drum tube carousel for 14mm culture tubes	1
15504100	64 place drum tube carousel for 18.5mm (15-20mL) culture tubes	1

## Multifunction 3D rotator

fisherbrand

- Provides flexibility of motion to include rotation, reciprocal rotation and vibration
- Rotation speed: 5 to 100rpm for long wave motion
- Reciprocal rotation: 0 to 360° turning angle for long and medium wave motion
- Vibration: 0 to 5° turning angle, programmable in bursts of 0 to 5 seconds, for short wave motion
- Operating temperature range of 5 to 40°C allows for use in refrigerators or non-CO<sub>2</sub> incubators
- Continuous or timed operation with automatic switch-off
- Display will show last used settings, even after power has been turned off
- Applications include
  - Immunoprecipitations
  - Affinity matrix
  - Gel staining and destaining - Antibody staining
  - General washing
  - Hybridisations
  - Western and Southern blots
- Warranty: Two years



Cat. No	Description	Pack qty
15514080	Multi function rotator 100-240V, orbital 5-100rpm, EU & UK plug	1

## Multi-platform shaker

fisherbrand

- Variable shaking speed: 50 to 450rpm
- Holds up to 4.5kg
- Automatic load balancing system
- Continuous or timed operation with automatic switch-off
- Maximum flexibility with many options for interchangeable accessories
- Simple set up and easy operation
- Display will show last used settings, even after power has been turned off
- Low voltage power supply provides for safe cold room operation and low energy consumption
- Operating temperature range of 5 to 40°C allows for use in cold rooms, refrigerators or non-CO<sub>2</sub> incubators
- Warranty: Two years



Cat. No	Description	Pack qty
15594060	Multi-platform orbital shaker, 50 to 450rpm, EU & UK plug	1
Required accessories: these items must also be purchased as appropriate		
15524100	Flat platform with non-slip rubber mat	1
15534100	Platform with clamps for 6 x 250mL flasks/150mL beakers	1
15544100	Platform with clamps for 12 x 100mL flasks/150mL beakers	1
15554100	Universal platform with adjustable bars	1
15564100	Stainless steel flask clamp 25mL	1
15574100	Stainless steel flask clamp 50mL	1
15584100	Stainless steel flask clamp 100mL	1
15594100	Stainless steel flask clamp 250mL	1
15504110	Stainless steel flask clamp 500mL	1
15514110	Stainless steel flask clamp 1000mL	1
15524110	Stainless steel flask clamp 2000mL	1
15534110	Stainless steel flask clamp 3000mL	1
15544110	Stainless steel flask clamp 5000mL	1
15554110	Sticky mat 140mm x 140mm	1
15564110	Infusion bottle clamp 500mL	1
15574110	Infusion bottle clamp 1000mL	1
15584110	Funnel clamp	1
15594110	Fixed tube rack 40 x 14mm dia.	1
15504120	Fixed tube rack 40 x 16mm dia.	1
15514120	Adjustable angle tube rack 40 x 14mm dia.	1
15524120	Adjustable angle tube rack 40 x 16mm dia.	1

## Nutating mixers

fisherbrand

- Fisherbrand nutating mixers deliver gentle uniform mixing of fluids in tubes, plates, culture flasks and dishes
- Fixed speed and variable speed versions available
- Operating temperature range: 5 to 40°C, usable in non-CO<sub>2</sub> incubators, refrigerators and chambers
- 306mm x 266mm platform accommodates a variety of tubes and vessels
- Warranty: Two years



**Fixed speed model** features budget-friendly design, easy to use, plug and play operation, fixed-speed movement at 20° angle and operates with a fixed speed of 18 or 20rpm (voltage dependent)

The **variable speed model**, from 2-60rpm, offers gentle continuous mixing of samples, display will show last used settings, even after power has been turned off and will continue to run when the power is recovered. Also features continuous or timed operation with automatic switch-off, and audible and visual alarm when the set time reaches zero

Cat. No	Description	Pack qty
15584070	Nutating mixer fixed speed 230V, 20rpm, EU & UK plug	1
15594070	Nutating mixer variable speed 100-240V, 2-60rpm, EU & UK plug	1

## Open air rocker

fisherbrand

- Fisherbrand open air rockers are ideal for cell culture work and can be used in a variety of environmental conditions
- The microprocessor control provides electronic tilt angle adjustment which allows the user to easily adjust rocking angle from 1 to 15° while unit is operating. Precise speed control provides smooth, low-speed rocking motion down to 1rpm
- Display will show last user settings, even after power has been turned off
- LED display: touchpad controls with easy-to-read symbols for speed, tilt angle, and time. Provides repeatable and accurate results. Timer will display elapsed time or, when programmed, will shut off unit when time reaches zero
- Audible and visual signals will activate when system detects an obstruction or overload of the tray
- Slowly increases speed to desired set-point to avoid splashing
- Operating conditions: usable in refrigerators, cold rooms or non-CO<sub>2</sub> incubators, maximum 80% relative humidity, non-condensing
- Applications include
  - staining and destaining gels
  - hybridisations
  - haematology and blotting techniques
- Warranty: Two years



Cat. No	Description	Pack qty
15514070	Open air rocker, 1 to 50rpm, 100-240V, EU & UK plug	1
Optional accessories		
15584130	Stacking tray assembly for open air rocker	1
15594130	Dimpled rubber mat	1
15514140	Rubber mat	1

## 3D Platform rotator

fisherbrand

- Fisherbrand 3D platform rotators provide smooth orbital motion for mixing in culture flasks, dishes, plates and tubes
- Simple speed adjustment from 2 to 80rpm
- Gentle movement ideal for staining gels without destroying the edges or keeping fragile tissue intact during incubation
- Large platform accommodates most commonly used vessels with non-slip mat to prevent sample movement
- Low voltage power supply provides safe cold room operation and low energy consumption
- Operating temperature range of 5°C to 40°C allows for use in refrigerators or non-CO<sub>2</sub> incubators
- Continuous or timed operation with automatic switch-off
- Display will show last used settings, even after power has been turned off
- Warranty: Two years



Cat. No	Description	Pack qty
15504080	3D platform rotator 100-240V, 2-80rpm, EU & UK plug	1

## Wave motion shaker

fisherbrand

- Quiet operation shakers, suitable for a wide variety of applications
- Easy-to-adjust speed control with optimised low-speed operation
- Easy-to-adjust tilt angle with a single set screw adjustment
- Operating temperature range of 5 to 40°C allows for use in cold rooms or non-CO<sub>2</sub> incubators
- Continuous or timed operation with automatic switch-off
- Display will show last used settings, even after power has been turned off
- Warranty: Two years



Cat. No	Description	Pack qty
15524070	Wave motion shaker 5-120 rpm, 100-240V, EU & UK plug	1
<b>Accessory</b>		
15514140	Rubber mat	1

## Overhead stirrer, compact, general purpose mixing

fisherbrand

- Easy to move and easy to set up
- Compact size ideal for fume hood or enclosed workstation and small volume applications
- Brushless DC motor is efficient, with less heat and maintenance free
- Belt driven transmission is smooth and quiet, with high power efficiency
- Easy to use intuitive controls - stirrer remembers last speed before powered off
- Chemical resistant, sealed keypad and splashproof housing
- Through-shaft makes impeller adjustment easy
- Two cord sets included (EU and UK)
- Safety approved - CE marked
- Adjustable chuck up to 10mm
- Warranty: Three years



Cat. No	Description	Pack qty
15203807	Overhead stirrer, general purpose, 40 to 2000rpm, 70ncm	1

## Overhead stirrer, high torque

fisherbrand

- Durable, unbeatable quality - TENV cast aluminum housing coated with chemical resistant epoxy paint
- Brushless DC motor is efficient, with less heat and maintenance free
- Belt driven transmission is smooth and quiet, with high power efficiency
- Adjustable chuck up to 10mm
- Chuck guard protects the user from moving chuck and protects the chuck itself from splashes
- Electronic speed control, two speed transmission maintains set speed at all viscosities
- Transmission changes automatically to high torque or high speed range
- Zero torque feature similar to a tare feature on a scale
- Sealed keypad is easy to use, intuitive and water tight
- Through shaft makes impeller adjustment easy
- Two cord sets included (EU and UK)
- Safety approved - CE marked
- Warranty: Three years



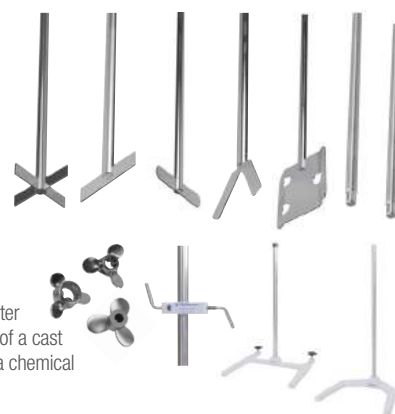
Cat. No	Description	Pack qty
15293797	Overhead stirrer, high torque, 20 to 3000rpm, 341ncm	1

## Overhead stirrer accessories

fisherbrand

- Choose from a range of accessories to complete your stirrer system

All shafts and blades are 316L electropolished stainless steel. The 9.5mm diameter shafts have a 12.7mm x 8mm diameter turned down end to accommodate props with a 8mm or 9.5mm diameter bore. Stands and clamps are made of a cast zinc aluminium alloy and coated in a chemical resistant epoxy powder.



Cat. No	Description	Pack qty
<b>Mixing propellers, impellers and shafts</b>		
12917106	Crossed blade impeller 400mm length x 50mm diameter	1
12927106	Straight blade impeller 400mm length x 50mm diameter	1
12937106	Pivoting blade impeller 400mm length x 60mm diameter	1
12947106	Collapsible blade impeller 400mm length x 90mm diameter	1
11920305	Square blade impeller 400mm x 70mm square	1
15244926	Pitched blade propeller 400mm x 64mm diameter	1
12987116	Pitched blade propeller 25mm diameter x 8mm bore	1
12997116	Pitched blade propeller 38mm diameter x 8mm bore	1
12907136	Shaft 300mm length x 8mm diameter	1
12927136	Shaft 457mm length x 8mm diameter	1
12957136	Shaft 610mm length x 8mm diameter	1
12917136	Shaft 300mm length x 9.5mm diameter	1
12937136	Shaft 457mm length x 9.5mm diameter	1
12947136	Shaft 508mm length x 9.5mm diameter	1
12967136	Shaft 610mm length x 9.5mm diameter	1
12977136	Shaft 762mm length x 9.5mm diameter	1
<b>Stands</b>		
12987096	Compact stand with base 457mm x 8mm diameter rod (for 15203807 only)	1
11984985	Safety stand with base 711mm x 25mm diameter rod	1
<b>Clamps</b>		
12907106	Stirrer clamp	1
<b>Other accessories</b>		
12997136	Vinyl chuck cover (for 15203807 only)	1
12977096	Chuck and key set	1

## Hotplate, Isotemp™ RT Digital

fisherbrand

- Low profile design
- Precise digital control to 0.1°C
- You can easily set your own temperature limit at any value between 0°C and 350°C
- Overheat prevention circuit turns off the heater if the hot plate temp reaches 450°C
- Hot top warning indicator
- Keypad lock button
- Three user selectable temperature modes: 'Optimal', 'Fast' or 'Slow'
- Two user selective timers: showing actual and set value simultaneously
- Separate operation 'Run/Stop' button
- Transparent safety shield available as an option
- Warranty: Two years



Cat. No	Description	Pack qty
15306607	Hotplate, digital, Isotemp RT, 230V, 50/60Hz, EU & UK plug	1
<b>Accessories</b>		
15366607	Heating bath	1
15376607	Transparent shield (PC)	1
15386607	Support rod 12mm dia. x 400mm L	1

## Hotplate stirrer, Isotemp™ RT Basic

fisherbrand

Benefits from exceptionally strong magnet-coupling power and a smooth-start stirring mechanism. Experience fast heat-up time and an excellent heat transfer rate thanks to the tightly integrated structure of the heater and a ceramic-coated aluminium alloy top plate which provides excellent temperature uniformity and corrosion resistance, whilst allowing for optimal monitoring of colour changes in samples or media during operation.



- Microprocessor PID control for optimal accuracy and safe, consistent stirring speed
- Stirring speed up to 2000rpm with temperature range max. 350°C
- Maximum stirring capacity 20L (H<sub>2</sub>O), maximum load 25kg
- Aluminium body with ceramic coated aluminum top plate, diameter 140mm
- Two threaded holes for support rods hold devices such as thermometers
- Hot top warning indicator and automatic over-temperature shut off
- Overall dimensions (l x w x h): 290 x 161 x 100mm
- LED digital display
- Heating power 600W
- Electrical requirements: 120V, 60Hz / 230V, 50/60Hz
- Range of optional accessories, including transparent shield
- Warranty: Two years

Cat. No	Description	Max. volume	Max. temp.	Pack qty
15316607	Isotemp RT basic hotplate stirrer 230V, 50/60Hz, EU & UK plug	20L	350°C	1
<b>Accessories</b>				
15366607	Heating bath			1
15376607	Transparent shield (PC)			1
15386607	Support rod 12mm dia. x 400mm L			1

## Hotplate stirrer, Isotemp™ RT Advanced

fisherbrand

- Low profile design
- Precise, digital control
- Temperature range ambient to 350°C
- Includes temperature probe
- Speed range: 30 to 2000rpm
- Stirring capacity: 20 litres
- Aluminium body with ceramic coated aluminium plate, diameter 140mm
- Overheat prevention circuit turns off the heater if the hot plate temp reaches 450°C
- Hot top warning indicator
- Three user-selectable temperature modes: optimal, fast or slow mode
- Two user-selective timers showing actual and set value simultaneously
- Separate operation 'Run/Stop' button
- Transparent safety shield as optional accessory
- Warranty: Two years



Cat. No	Description	Pack qty
15326607	Isotemp RT advanced hotplate stirrer 230V, 50/60Hz, EU & UK plug	1
<b>Accessories</b>		
Cat. No	Description	Pack qty
15366607	Heating bath	1
15376607	Transparent shield (PC)	1
15386607	Support rod (12mm, 400mm, M10)	1
15366617	Temperature probe (PT 100, SN-8-4 connector sensor)	1
15346617	C-5, clamp holder (PP body, dia:12 mm)	1
15356617	Three-prong clamp (60mm grip)	1

## Hotplates, stirrers, and stirring hotplates Isotemp™, small models

fisherbrand

- Advanced technology
- Strong magnetic coupling
- Temperature adjustable in 1 degree increments
- HOT TOP warning system designed to protect from accidental burns with prominent display when heating surface is above 50°C (122°F)
- Automatic over-temperature protection
- Flexible, robust design
- Top plate choices in ceramic or aluminium
- Raised display design protects electronics from spills
- Optional temperature probe and splash guard protection shield
- Variable sizes for different sample volumes
- RoHS compliant
- cCSAus (100-120V models), CE (230V models)
- Warranty: Three years



Working surface: 108 x 108mm - Overall dimensions: 127 x 254 x 91mm

Cat. No	Description	Surface type	Plug type	Stir range rpm	Max surface temp, °C	Pack qty
15343508	Hotplate	Ceramic	230V 50/60Hz (EU)	N/A	540	1
15353508	Hotplate	Ceramic	230V 50/60Hz (UK/AUS/CN)	N/A	540	1
15383508	Stirrer	Ceramic	230V 50/60Hz (UK/AUS/CN)	50-1500	N/A	1
15363508	Stirrer	Ceramic	230V 50/60Hz (EU)	50-1500	N/A	1
15393508	Hotplate stirrer	Ceramic	230V 50/60Hz (EU)	50-1500	540	1
15303518	Hotplate stirrer	Ceramic	230V 50/60Hz (UK/AUS/CN)	50-1500	540	1



# MIXING, STIRRING AND HEATING

## Hotplates, stirrers, and stirring hotplates Isotemp™, medium sized models

fisherbrand

- Advanced technology
- Strong magnetic coupling
- Temperature adjustable in 1 degree increments
- HOT TOP warning system designed to protect from accidental burns with prominent display when heating surface is above 50°C (122°F)
- Automatic over-temperature protection
- Flexible, robust design
- Top plate choices in ceramic or aluminium
- Raised display design protects electronics from spills
- Optional temperature probe and splash guard protection shield
- Variable sizes for different sample volumes
- RoHS compliant
- Warranty: Three years



Working surface: 184 x 184mm - Overall dimensions: 208 x 330 x 97mm

Cat. No	Description	Surface type	Plug type	Stir range (rpm)	Max surface temp, °C	Pack qty
15313518	Hotplate	Ceramic	230V 50/60Hz (EU)	N/A	540	1
15323518	Hotplate	Ceramic	230V 50/60Hz (UK/AUS/CN)	N/A	540	1
15333518	Stirrer	Ceramic	230V 50/60Hz (EU)	50-1500	N/A	1
15343518	Stirrer	Ceramic	230V 50/60Hz (UK/AUS/CN)	50-1500	N/A	1
15353518	Hotplate stirrer	Ceramic	230V 50/60Hz (EU)	50-1500	540	1
15363518	Hotplate stirrer	Ceramic	230V 50/60Hz (UK/AUS/CN)	50-1500	540	1
15373518	Hotplate	Aluminium	230V 50/60Hz (EU)	N/A	300	1
15383518	Hotplate	Aluminium	230V 50/60Hz (UK/AUS/CN)	N/A	300	1
15393518	Stirrer	Aluminium	230V 50/60Hz (EU)	50-1500	N/A	1
15303528	Stirrer	Aluminium	230V 50/60Hz (UK/AUS/CN)	50-1500	N/A	1
15323528	Hotplate stirrer	Aluminium	230V 50/60Hz (EU)	50-1500	300	1
15343528	Hotplate stirrer	Aluminium	230V 50/60Hz (UK/AUS/CN)	50-1500	300	1

## Hotplates, stirrers, and stirring hotplates Isotemp™, large models

fisherbrand

- Advanced technology
- Strong magnetic coupling
- Temperature adjustable in 1 degree increments
- HOT TOP warning system designed to protect from accidental burns with prominent display when heating surface is above 50°C (122°F)
- Automatic over-temperature protection
- Flexible, robust design
- Top plate choices in ceramic or aluminium
- Raised display design protects electronics from spills
- Optional temperature probe and splash guard protection shield
- Variable sizes for different sample volumes
- RoHS compliant
- cCSAus (100-120V models), CE (230V models)
- Warranty: Three years



Working surface: 260 x 260mm - Overall dimensions: 287 x 411 x 102mm

Cat. No	Description	Surface type	Plug type	Stir range (rpm)	Max surface temp, °C	Pack qty
15313538	Hotplate	Ceramic	230V 50/60Hz(EU)	N/A	400	1
15323538	Hotplate	Ceramic	230V 50/60Hz (UK/AUS/CN)	N/A	400	1
15333538	Stirrer	Ceramic	230V 50/60Hz (EU)	50-1500	N/A	1
15343538	Stirrer	Ceramic	230V 50/60Hz (UK/AUS/CN)	50-1500	N/A	1
15353538	Hotplate stirrer	Ceramic	230V 50/60Hz (EU)	50-1500	400	1
15363538	Hotplate stirrer	Ceramic	230V 50/60Hz (UK/AUS/CN)	50-1500	400	1

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## Hotplates, stirrers and stirring hotplates, Isotemp™ Advanced

The Isotemp Advanced series of stirrers are designed to provide reliable performance, dependable safety and precise control. Available with optimised controls and settings for applications that demand advanced precision.

- Intuitive design
- Top plate choices in ceramic or aluminium
- Raised display design protects electronics from spills
- Ability to set programs (ramp/dwell) as well as save settings
- Stainless steel PT100 temperature probe, supporting rod and clamp kit included with both hotplate and stirring hotplate models
- Stir bar included with stirrer and stirring hotplate models
- Optional PT1000 temperature probe and splash guard protection shield
- Advanced technology
- StirTrac features innovative engineering for slow-speed stirring, consistent speed control, and stronger magnetic coupling
- HOT TOP warning system designed to protect from accidental burns with prominent display when heating surface is above 50°C (122°F)
- Temperature adjustable in 1°C increments except when using temperature probe, then ability to control in 0.1 degree increments below 100°C
- Working surface 184 x 184mm, overall dimensions 208 x 330 x 97mm
- Warranty: Three years

Cat. No	Description	Surface type	Stir range, rpm	Volts/Hz	Pack qty
15353528	Hotplate	Ceramic	N/A	230V 50/60Hz (EU)	1
15363528	Hotplate	Ceramic	N/A	230v 50/60Hz (UK/AUS/CN)	1
15373528	Stirrer	Ceramic	50-1500	230V 50/60Hz (EU)	1
15383528	Stirrer	Ceramic	50-1500	230V 50/60Hz (UK/AUS/CN)	1
15393528	Hotplate stirrer	Ceramic	50-1500	230V 50/60Hz (EU)	1
15303538	Hotplate stirrer	Ceramic	50-1500	230v 50/60Hz (UK/AUS/CN)	1

### Accessories for Isotemp™ Advanced series

Cat. No	Description	Pack qty
15373538	Splash guard protection shield for all Isotemp 10.8cm x 10.8cm stirrers, hotplates and hotplate stirrers	1
15383538	Splash guard protection shield for all Isotemp 18.4cm x 18.4cm stirrers, hotplates and hotplate stirrers	1
15393538	Splash guard protection shield for all Isotemp 26cm x 26cm stirrers, hotplates and hotplate stirrers	1
15303548	PT100 external probe, 0-400°C, stainless steel, for all sizes of Isotemp hotplates and hotplate stirrers	1
15313548	PT1000 external probe (for better accuracy), 0-400°C, stainless steel, for all sizes of Isotemp hotplates and hotplate stirrers	1
15323548	PT1000 external probe (for use with acids), 0-400°C, Hastelloy, for all sizes of Isotemp hotplates and hotplate stirrers	1
15353548	Power cord 1MM-2 BRIT 240 10A PE	1
15343548	Power cord 18-3 HSJO 10A EURO 86 PE	1
15386607	Support rod to be used together with clamps and clamp holder to hold apparatus suitable for all Isotemp hotplates, stirrers and stirring hotplates	1
15346617	Clamp and clamp holder to attach to supporting rod, suitable for all Isotemp hotplates, stirrers and stirring hotplates	1

fisherbrand



## Vortex mixer, basic

fisherbrand



- General purpose basic laboratory mixer for a variety of mixing applications
- Speed 0 to 3000rpm
- Touch or continuous operation
- Technopolymer body for higher chemical resistance
- Orbit diameter 4.5mm
- Dimensions 153 x 170 x 125mm
- Power supply 100/240V, 50/60Hz
- Warranty: One year

Cat. No	Description	Pack qty
13214789	Vortex mixer, speed 0 to 3000rpm	1

## Vortex mixers, Classic and Wizard

fisherbrand



- Ideal for a variety of mixing applications
- Innovative and attractive ergonomic design for outstanding comfort
- Epoxy-coated zinc alloy construction for durability and excellent chemical resistance
- Anti-slip feet help to absorb vibration and increase stability
- Wizard model features unique infrared tube sensing system
- Protection: IP42
- Speed 0 to 3000rpm
- Orbit diameter 4.5mm
- Warranty: One year

Cat. No	Description	Pack qty
11726744	Vortex mixer, 230V, 50Hz, ZX Classic	1
11746744	Vortex mixer, 230V, 50Hz, ZX Wizard	1

## Vortex mixer, mini, fixed speed

fisherbrand



- Small, compact vortex mixer
- Accepts tubes and vessels of multiple sizes
- Fixed speed 2800rpm
- Orbit 4.5mm
- Warranty: Two years

Cat. No	Description	Pack qty
15212985	Mini vortexer, fixed 2800rpm	1

## Vortex mixer, mini, variable speed

fisherbrand



- Small, compact vortex mixer
- Adjustable speed from 500 to 2800rpm
- Orbit 4.5mm
- Touch-function activates the motor immediately upon contact with a tube or vessel
- The unique cup design accepts tubes and vessels of all sizes, including 15mL and 50mL conical tubes
- Power supply - supplied with both UK and EU adapters
- Warranty: Two years

Cat. No	Description	Pack qty
15494960	Mini vortexer, variable 500-2800rpm	1

## PUMPS

Fisherbrand offer a range of vacuum and peristaltic pumps precisely tuned to many laboratory applications such as filtration, degassing, desiccation, sampling and aspiration.

## Aspiration Advantage system

fisherbrand

Compact and portable unit with an integrated resistant diaphragm pump, used for the safe and precise aspiration of non-flammable chemical, biological, and medical liquids. Fluids can be removed easily and very precisely from slides, petri dishes, microplates, cell culture containers or similar vessels by using different pipettes or glass tips which can be easily connected to the HandVac pipettor attachment.



- Superior chemical resistant diaphragm pump with long service life
- Automatic flow-stop when four litre receiver is full
- Hydrophobic filter for bacteria and viruses, diameter 55mm, minimum pore size 0.22µm
- Rapid action coupling hose connectors with automatic isolation valves
- Pumping speed 15L/min
- Ultimate pressure 100mbar
- Tubing required DN 8mm
- Warranty: One year

Cat. No	Description	Pack qty
<b>15567479</b>	Aspiration Basic System, 15L/min, 150mbar, 90-260V, 50/60Hz	1
<b>15348191</b>	Aspiration Advantage System with 4L PP bottle, with vacuum regulator on front panel and vacuum gauge on top panel built in	1
<b>Accessories</b>		
<b>10700854</b>	HandVac basic pipettor kit, comprising a single channel plastic adapter for pipettor tip with ejector, silicone hose (inside diameter 6mm, wall thickness 3mm, length 2m) and rapid action coupling hose connector	1
<b>15572620</b>	HandVac duo kit, comprising a single channel plastic adapter for pipettor tip with ejector, silicone hose (inside diameter 6mm, wall thickness 3mm, length 2m), rapid action coupling hose connector and Y-connector	1
<b>10412163</b>	Eight-channel stainless steel adapter	1
<b>13594340</b>	Eight-channel plastic adapter with ejector	1
<b>15441934</b>	Single channel plastic adapter for disposal tips with ejector	1
<b>15432055</b>	Silicone hose, 2m length, inside diameter 6mm x wall thickness 3mm	1
<b>15451934</b>	Table top stand for HandVac and accessories	1
<b>12967914</b>	In-line filter	1
<b>15461934</b>	4L polypropylene receiving bottle includes lid, in-line filter, tubing and rapid action coupling hose connectors	1
<b>15309804</b>	Footswitch for Aspiration Advantage system, with on-off function	1
<b>10591443</b>	Footswitch momentary	1

## Dispensing pump systems, DP2000 and DP2100

fisherbrand

DP2000 and DP2100 peristaltic pumps are simple to set-up as dosing pumps, or dispensing systems by volume, time, or copy mode with a timed interval. The pump is also reversible, allowing for purging of transfer lines or emptying containers. These innovative systems provide a number of important advantages for users, including single-channel variable flow from 0.5 to 4000mL/min at a variable speed range of 4 to 400rpm. The powerful motor provides better than 0.25% percent speed control accuracy and repeatability, as well as remote control operation.



- Flow capacity (mL/min) 0.5 to 3000 (**15397547**) and 14 to 4000 (**15307557**)
- 4 to 400rpm
- Reversible
- The dispensing handle is an ideal accessory to actuate a dispense cycle
- Warranty: One year
- Contact your local Fisher Scientific representative for details on the correct peristaltic pump tubing to meet your application

Cat. No	Description	Pack qty
<b>15397547</b>	DP2000 dispensing pump system (thin wall)	1
<b>15307557</b>	DP2100 dispensing pump system (thick wall)	1

## Peristaltic pumps, multichannel MCP3000

fisherbrand

Fisherbrand MCP3000 series peristaltic pumps provide multichannel pumping with the accuracy of flow control and broad flow range to efficiently service most pumping applications, including bioassays, electrophoresis, chromatography and pH control.



With a choice of flow ranges and three modes of operation: flow, timed flow and programmable cycle dispensing, these multichannel pumps can save considerable time and resources while greatly improving process efficiency. Featuring remote control of speed, pumping direction, and start/stop/purge, MCP3000 pumps are available with a wide range of interchangeable multichannel pump heads, drives and tubing and can deliver up to 12 channels simultaneously. A pre-configured MCP3000 pump system consists of a pump head, drive, and a full set of cassettes.

- Cassette design provides fast tubing changes, and eliminates hardware in other multi-channel designs
- Rugged motor and controls ensure long-term reliable operation
- Three modes of operation - Flow, Timed Flow and Programmable Cycle Dispensing
- Lower pulsation flow and higher accuracy at low volumes and low flow rates
- High repeatability on all channels
- Cassettes provide defined and repeatable occlusion conditions
- Choice of 4, 8, or 12 channel models (2, 4, and 6 channels when using the large cassettes)
- Create accurate, metered, parallel flows with difficult or multiphase fluids
- Digital display of pump speed or percent of maximum speed or number of dispense cycles
- Adjustable occlusion setting provides flow and pressure performance, and optimises tubing life
- Valveless replacement for diaphragm pumps, piston pumps
- Warranty: One year
- Contact your local Fisher Scientific representative for details on the correct peristaltic pump tubing to meet your application

Cat. No	Description	Flow rate, mL/min	Number of channels	Cartridges included	Pack qty
<b>15317557</b>	MCP3000, 6 roller	0.21 to 280	4	2 Large	1
<b>15337557</b>	MCP3000, 8 roller	0.013 to 67.0	4	4 Small	1
<b>15347557</b>	MCP3000, 3 roller	0.22 to 530	8	4 Large	1
<b>15357557</b>	MCP3000, 4 roller	0.02 to 100	8	8 Small	1
<b>15367557</b>	MCP3000, 6 roller	0.033 to 56	12	6 Large	1
<b>15387557</b>	MCP3000, 8 roller	0.002 to 14.0	12	12 Small	1

## Peristaltic pump systems, general purpose GP1000 and GP1100

fisherbrand

Fisherbrand GP1000 and GP1100 peristaltic pumps are ideal general-purpose tubing pumps for high repeatability, precision metering and worry-free performance in a variety of life science, industrial and process applications. The broad flow range capability of these units make them ideal for laboratory to pilot process scale-up requirements.

These units offer a reliable alternative to lab piston metering pumps, gear pumps and small circulating pumps used in life science laboratory applications. These stackable, variable speed pumps are self priming, able to operate dry, and contain no valves or seals eliminating replacement needs. Fluid contacts only the tubing, providing for contamination free pumping in high-purity applications.



- Flow rate 0.5 to 3000 (15377547), 14 to 4000 (15387547)
- Speed 4 to 400rpm
- Reversible flow
- Pressure 60psig
- Dimensions 317mm x 279mm x 152mm
- Warranty: One year
- Contact your local Fisher Scientific representative for details on the correct peristaltic pump tubing to meet your application

Cat. No	Description	Pack qty
15377547	GP1000 peristaltic general purpose pump system	1
15387547	GP1100 peristaltic general purpose pump system (thick wall)	1

## Peristaltic pump systems, ultra-compact CTP series

fisherbrand

These units are provided as complete pumping systems, consisting of a pump, motor and control in a stackable steel housing. With standard flow ranges from 0.002mL/min to 105mL/min and pressures to 2.5 bar, these instrument-quality peristaltic pumps provide an ideal, cost-effective alternative to syringe pumps. A robust, fixed occlusion design allows for reliable, accurate pumping and dispensing with a wide variety of tubing materials and varying differential pressure applications.



- Easy to maintain and use
- Simple, fast tubing changes
- Fixed occlusion eliminates adjustment after tubing changes
- Contamination free pumping - fluid contacts only the tubing material
- Controls are mounted on front panel
- Flow direction switch with centre 'OFF' position and green LED power 'ON' indicator
- 'Prime' button runs pump at maximum speed to rapidly prime or flush tubing
- Reversible pump direction permits purging of tubing prior to use
- Diverse performance range with accurate and repeatable flow delivery
- Address a wide range of critical applications with tubing materials that comply to USP class VI, FDA and NSF standards
- Accommodates all sizes and formulations of microbore flow rated tubing
- Ergonomic, space efficient and low profile, stackable design
- Remote capability: actuate unit with a foot switch or contact closure
- Warranty: One year
- Contact your local Fisher Scientific representative for details on the correct peristaltic pump tubing to meet your application

Cat. No	Model	Number of channels	rpm	Flow rate, mL/min	Pack qty
15327527	CTP100	1	1.2 to 10	0.002 to 1.65	1
15337527	CTP100	1	13 to 80	0.017 to 11	1
15307537	CTP100	1	50 to 300	0.07 to 50	1
15357547	CTP150	1	20 to 100	0.8 to 105	1
15367547	CTP300	2	20 to 100	0.8 to 14	1

## Piston pump, oil free

fisherbrand

- Ideal for the basic filtration of non-aggressive solvents
- Superior chemical resistant diaphragm pump with long service life
- Automatic flow-stop when four litre receiver is full
- Hydrophobic filter for bacteria and viruses, diameter 55mm, minimum pore size 0.22µm
- Rapid action coupling hose connectors with automatic isolation valves
- Pumping speed 9.2L/min
- Ultimate pressure <292mbar
- Hose nozzle DN6
- Weight 2.3kg
- Overall dimensions (l x w x h), mm: 194 x 114 x 191
- Warranty: One year



Cat. No	Description	Pack qty
11533485	General purpose vacuum pump	1

## Vacuum pumps, diaphragm, chemical duty

fisherbrand

- Use these chemically resistant pumps for applications involving aggressive solvents and acidic vapours
- Pump heads are made from PTFE with carbon fibre reinforcing
- Pumping chambers are hermetically separated from drive space ensuring extended life of mechanical parts
- Pumps use PTFE diaphragms sandwiched to strong non-wetted backing and PEEK valves
- Gas ballast valve helps to preserve pump performance when working with condensable vapours
- Max overpressure 1 bar
- Sound level at 50Hz <44db (A)
- Type of protection (motor) IP54
- Hose nozzle DN8
- Voltage 230V, 50/60Hz
- Warranty: One year



Cat. No	Motor power (W)	Flow rate, L/min	Ultimate pressure (mbar)	Overall dimensions, (l x w x h)	Pack qty
10287097	60	16.7/18	< 8	195 x 235 x 145	1
12991131	90	33/36	< 2	200 x 260 x 150	1
12981131	180	38/41	< 8	230 x 265 x 169	1

## Vacuum pumps, two-stage, rotary vane

For a wide range of laboratory applications and continuous running. These two-stage direct driven rotary vane pumps provide high water vapour tolerance and are designed for a wide range of laboratory applications and continuous running. Their low weight, small footprint and high pumping speed, as well as increased chemical resistance, are all advantageous features in research and routine processes.

- Compact design, low weight and easy to use
- Quiet running and excellent ultimate vacuums
- Active corrosion protection
- Easy maintenance
- Supplied with clamps and seals for the inlet and outlet
- Each pump comes with anti-suck back valve, gas ballast valve, oil charging, centring ring, clamping ring and motor overload protection
- Warranty: One year

Cat. No	Flow rate, L/min	Vacuum (without gas ballast), mbar	Pack qty
<b>12901141</b>	30/36	$1 \times 10^{-2}$	1
<b>12911141</b>	77/92	$1 \times 10^{-3}$	1
<b>12921141</b>	97/110	$1 \times 10^{-3}$	1
<b>12931141</b>	120/143	$1 \times 10^{-3}$	1
<b>12951141</b>	183/220	$1 \times 10^{-3}$	1

*fisherbrand*



## Vacuum pump, diaphragm, general purpose

- Oil-free dry pump helping you to simplify your filtration and sampling procedures
- Improved chemical resistance
- Compact, lightweight and portable
- Quiet operation and very low vibration
- Use in the lab or in the field (with optional adapter)
- Certification: CE marked
- Warranty: One year

*fisherbrand*



Cat. No	Pumping speed	Motor power	Ultimate pressure	Max. over-pressure	IN/EX hose connector	Sound level @ 50Hz	Overall dimensions (l x w x h), mm	Pack qty
<b>12911151</b>	15L/min	20W	<100 mbar	2.5 bar	DN6	<45db (A)	144 x 127 x 196	1

## Vacuum pump accessories

*fisherbrand*

- Accessory connection kits (primarily for chemical duty pumps, Cat. Nos 10287097, 12981131, 12991131)
- Choose the appropriate kit below for your specific application needs



Cat. No	Description	Pack qty
<b>13514920</b>	Kit 1 - Rotary evaporator connection kit <ul style="list-style-type: none"> <li>◦ Easy connection of the pump to common rotary evaporators</li> <li>◦ Connection kit includes: vacuum hose 18/8x5 (1.5 m), cooling water &amp; chiller connection hose and clamps</li> </ul>	1
<b>13554920</b>	Kit 2 - Vacuum oven connection kit for vacuum ovens with DN16 KF and DN25 KF adapter <ul style="list-style-type: none"> <li>◦ For standard vacuum oven connection</li> <li>◦ Connection kit includes: hose nozzle DN16-8/25-8, clamping ring, centering ring and vacuum hose 18/8x5 (1.5m)</li> </ul>	1
<b>13564920</b>	Kit 3 - Advanced vacuum oven connection kit for vacuum ovens with DN16 KF and DN25 KF adapters <ul style="list-style-type: none"> <li>◦ To prevent particles from entering the pump, specially recommended for dusty drying processes</li> <li>◦ Connection kit includes: hose nozzle DN16-8/25-8, dust filter, clamping ring, centering ring and vacuum hose 18/8x5 (1.5m)</li> </ul>	1
<b>13504920</b>	Kit 4 - Filtration & desiccator connection kit <ul style="list-style-type: none"> <li>◦ Connect your manifold easily to the vacuum pump. An in-line filter protects liquid from entering the pump</li> <li>◦ Connection kit includes: vacuum hose and hydrophobic in-line filter (DN8)</li> </ul>	1

Cat. No	Description	Pack qty
<b>10061242</b>	Thick walled hose for vacuum or pressure applications, red rubber, 18/8x5mm - sold in 1 metre increments	1

**Control packages for chemical duty pumps, Cat. Nos.10287097, 12981131, 12991131:**  
 - Choose the appropriate vacuum control package below for your specific application needs.

<b>15549632</b>	<ul style="list-style-type: none"> <li>◦ Regulator valve for intake allows the adjustment of the ultimate pressure</li> <li>◦ Dial gauge indicates the vacuum level</li> <li>◦ Air regulator valve mounted directly on the pump</li> <li>◦ For Cat. No 10287097</li> </ul>	1
<b>11896423</b>	<ul style="list-style-type: none"> <li>◦ Regulator valve for intake allows the adjustment of the ultimate pressure</li> <li>◦ Dial gauge indicates the vacuum level</li> <li>◦ Air regulator valve mounted directly on the pump</li> <li>◦ For Cat. No 12981131</li> </ul>	1
<b>10810770</b>	<b>Digital Vacuum Control Box Model VCB521cv</b> <ul style="list-style-type: none"> <li>◦ This VCB unit controls vacuum, cooling water and the venting valve</li> <li>◦ Timer function for process termination after prespecified time</li> <li>◦ Solvent library - 38 solvents preprogrammed to simplify parameter selection</li> <li>◦ Works with most PTFE dry pumps</li> </ul> Programmable vacuum controller Model VCB521cv with a built-in highly resistant ceramic diaphragm sensor for absolute pressure determination. Two variable independent switch points can be set between 1-1100mbar. Digital display for easy vacuum control; digitally displayed user-friendly operating instructions. Touch function keys stop bumping/foaming or quickly access maximum vacuum.	1
<b>13504930</b>	<b>Software kit for VCB521cv</b> <ul style="list-style-type: none"> <li>◦ Network your controller via PC/laptop. Monitor, control, store and document results</li> <li>◦ Data acquired can be exported into standard formats and can be analysed in Excel™</li> <li>◦ Communication between PC and VCB is performed via RS 232 for USB (with optional adapter)</li> <li>◦ Kit includes software and connection cable.</li> </ul>	1
<b>13168266</b>	Vacuum regulator with dial gauge for Cat. No 12911151	1

## Tubing, rubber

*fisherbrand*

- Higher resilience than most other polymers
- Temperature range: -40°C to 70°C
- Light and flexible, for transferring liquids, gases and dilute acids
- Heavy wall, recommended for vacuum use
- Not suitable for use with petroleum oils and hydrocarbon solvents



Cat. No	Description	Bore size, mm	Wall thickness, mm	Pack qty
<b>11885512</b>	Normal wall, BS2775	8	2	10m
<b>11587562</b>	Heavy wall, BS2775	6.5	5	10m



## SAFETY

From head to toe, Fisherbrand supplies a comprehensive range of safety apparel and accessories to help protect you, your visitors, your (non-hazardous) laboratory and other working environments from contamination or soiling.

## Bench protective paper

fisherbrand

- Polyethylene-backed 125g/sq.m absorbent paper
- Suitable for the protection of all types of laboratory work surfaces
- Supplied as rolls or sheets



Cat. No	Description	Pack qty
15649504	Bench protective paper 125g/m <sup>2</sup> 460mm 50m roll	1 roll
15659504	Bench protective paper 125g/m <sup>2</sup> 920mm 50m roll	1 roll
15639504	Bench protective paper 125g/m <sup>2</sup> 460mm x 570mm sheets	100 sheets

## Beard covers, disposable

fisherbrand

Polypropylene facial hair cover for basic protection

- Disposable
- 10gsm spunbonded polypropylene
- Single-use
- Latex-free
- White



Cat. No	Description	Colour	Size	Pack qty
15471952	SPP Beard cover, 18 x 42cm	White	Universal	500

## Bouffant caps, disposable polypropylene

fisherbrand

Single-use cap provides basic protection

- Disposable
- 14gsm polypropylene
- Diameter: 53.3cm or 60.9cm
- Latex-free
- Choice of blue or white



Cat. No	Description	Colour	Size, cm	Pack qty
15491932	PP Bouffant cap round, small	Blue	53.3	1000
15401942	PP Bouffant cap round, small	White	53.3	1000
15411942	PP Bouffant cap round, large	Blue	60.9	1000
15421942	PP Bouffant cap round, large	White	60.9	1000

## Bouffant caps, pleated, disposable

fisherbrand

Bouffant cap with elastic headband is encapsulated in soft poly thread for great comfort and basic protection

- Disposable
- Pleated
- Polypropylene
- Choice of white or blue



Cat. No	Colour	Size	Pack qty
15431942	White	Small	1000
15441942	Blue	Small	1000
15451942	White	Large	1000
15461942	Blue	Large	1000
15471942	White	X-Large	1000

## Facemasks, disposable polypropylene

fisherbrand

Provides advanced protection

- Disposable, single use
- Choice of ear loops or tie closure
- Non-woven polypropylene outer layer
- Thermally bonded non-woven polypropylene inner layer
- Latex-free
- Choice of blue or white
- Universal size/fit



Cat. No	Description	Thickness	Pack qty
15451932	Disposable face mask with ear loops, white	2-ply	500
15461932	Disposable face mask with ear loops, blue	3-ply	500
15471932	Disposable face mask with ear loops, white	3-ply	500
15481932	Disposable face mask with tie closure, blue	3-ply	500

## Glasses, safety, 200 series

fisherbrand

For economical, lightweight protection

- One-piece clear, hard-coated lens provides a full and unobstructed field of vision
- Absorbs more than 99.9% of harmful UV light
- Moulded-in sideshields and browguards
- Adjustable spatula temples
- Black frames
- Meets ANSI Z87.1-2003 standards



Cat. No	Description	Pack qty
15618825	Fisherbrand 200 series safety glasses	1

## Glasses, safety, Visitorspec

fisherbrand

- Ideal for protecting visitors in industrial or medical settings
- 100% impact-resistant polycarbonate wraparound unilens design with blue temples
- Absorbs more than 99.9% of harmful UV light
- Meets ANSI Z87.1-2003 standards



Cat. No	Description	Pack qty
15628825	Fisherbrand Visitorspec safety glasses, uncoated	1

## Goggles, safety, economy range

fisherbrand

- Affordable economy range
- Offers basic protection
- Clear polycarbonate lens
- Soft, flexible PVC body moulds to facial contours for a comfortable fit
- Adjustable headstrap ensures custom fit
- Direct vents on goggle top and sides
- Uncoated



Cat. No	Description	Pack qty
15638825	Economy impact safety goggles, shield eyes from dust, mist and other airborne particles	1
15648825	Economy chemical splash goggles, resists a broad range of chemicals	1



## Gloves, latex, disposable, PPE Category III

*fisherbrand*

- Latex examination gloves providing a protective barrier
- Contain soothing Aloe vera to help prevent skin from drying, cracking and chapping
- Textured to provide excellent grip
- Powder free
- To EN 374:2003 (AQL 1.5)
- Length 240mm



Cat. No	Size	Pack qty
15153269	S	100
15173269	M	100
15163269	L	100
15183269	XL	100

## Gloves, nitrile, disposable, Aloe vera, PPE Category III

*fisherbrand*

- Premium nitrile gloves offering the comfort and feel of latex
- Comfortable, strong and durable
- Aloe vera coating on the inner surface to protect hands from drying, chapping and cracking
- 100 ambidextrous gloves per standard box reduces waste and environmental impact
- Tested against more than 30 chemicals
- PPE complies with Category III, AQL 0.65, EN 374-1 and 2, ISO 16604 certified for food contact
- Thickness 0.06mm



Cat. No	Size	Pack qty
15193269	S	100
15103279	M	100
15113279	XL	100

## Gloves, purple nitrile, disposable, PPE Category III

*fisherbrand*

- Ergonomically designed and 100% nitrile
- Latex and protein free with non-detectable residual accelerators
- Textured fingertips
- Ambidextrous
- Powder free



Cat. No	Size	Pack qty
<b>Standard length gloves, 250mm</b>		
11502723	2XS	100
11512723	XS	100
11522723	S	100
10223882	M	100
11542723	L	100
11552723	XL	100
<b>Extra protection nitrile gloves, 300mm length</b>		
10090812	XS	50
10611783	S	50
10000822	M	50
10769824	L	50
10580043	XL	50

You may also be interested in our  
**glove box holders on pages  
106 to 107**



## Lab coats, basic disposable, polypropylene

*fisherbrand*

Latex-free spunbond polypropylene construction

- Disposable
- Comfortable and lightweight
- Ideal for laboratory or workplace visitors
- Elastic cuffs hold sleeves in place
- Five snaps for a secure closure
- Standard collar
- No pockets
- Fabric weight: 50g/m<sup>2</sup>



Cat. No	Colour	Size	Pack qty
15431922	White	S	25
15441922	White	M	25
15451922	White	L	25
15461922	White	XL	25
15471922	White	2XL	25
15481922	White	3XL	25

## Lab coats, with pockets, disposable, polypropylene

*fisherbrand*

Single-use lab coats providing economical, lightweight and breathable protection

- Latex-free spunbond polypropylene construction
- Knitted cuffs hold sleeves in place
- Three pockets and a five snap closure
- Standard collar
- Fabric weight: 50g/m<sup>2</sup>



Cat. No	Colour	Size	Pack qty
15491922	White	S	30
15401932	White	M	30
15411932	White	L	30
15421932	White	XL	30
15431932	White	2XL	30
15441932	White	3XL	30

## Lab coats, polycotton washable, unisex

*fisherbrand*

Manufactured from a quality pre-shrunk polycotton fabric, these smart, washable traditional lab coats are suitable for industrial laundering at temperatures up to 85°C. Features include two lower patch pockets, breast pocket with integral pen pocket, concealed stud fastened front, single rear vent for ease of movement. Not CE marked.



- Colour: White
- Length: 132cm
- Material: 65% polyester/35% cotton
- Three pockets

Cat. No	Size	Pack qty
11558102	S	1
11568102	M	1
11578102	L	1
11588102	XL	1
11598102	XXL	1
11508112	XXXL	1

## Shoe covers, disposable anti-static

*fisherbrand*

With carbon dissipative strip sewn in to help eliminate static buildup

- Single-use
- Elastic ankle
- 42gsm polypropylene
- Latex-free
- Blue



Cat. No	Description	Colour	Size	Pack qty
15441952	Shoe cover, with conductive carbon strip	Blue	Universal	300

## Shoe covers, disposable, blue

*fisherbrand*

Spunbond polypropylene shoe covers protect against dirt, grime and certain dry particulates

- Single-use
- Blue
- Polypropylene
- Latex-free
- With or without anti-skid sole



Cat. No	Description	Colour	Size	Pack qty
15401952	Shoe cover with anti-skid	Blue	Universal	300
15481942	Shoe cover without anti-skid	Blue	Universal	300
15411952	Shoe cover with anti-skid	Blue	X-Large	300
15491942	Shoe cover without anti-skid	Blue	X-Large	300

## Shoe covers, disposable high-tack

*fisherbrand*

High-tack, disposable shoe covers provide superior protection



- Single-use
- Polyurethane
- Blue
- Latex-free
- High-tack sole

Cat. No	Description	Colour	Size	Pack qty
15421952	Shoe cover, high-tack	Blue	Universal	300
15431952	Shoe cover, high-tack	Blue	X-Large	300

## Shoe covers, disposable polyethylene

*fisherbrand*

Single use, disposable covers provide convenient protection



- Polyethylene
- Blue
- Latex-free

Cat. No	Description	Colour	Size	Pack qty
15451952	Shoe cover, polyethylene	Blue	Universal	300
15461952	Shoe cover, polyethylene	Blue	X-Large	300

## Sleeve covers, disposable polyethylene

*fisherbrand*

Disposable general purpose sleeves



- Polyethylene
- Length: 45.7cm
- Latex-free
- Blue
- Thickness: 6 mil
- Elasticated cuffs

Cat. No	Colour	Size	Length, cm	Pack qty
15481952	Blue	Universal	45.7	200

## SAMPLING AND STORAGE

Collect and store samples or materials with our range of Fisherbrand scoops, samplers and storage containers, and keep your workplace tidy and safe with Fisherbrand dispensers and disposal bins.

### Aluminium foils and foil dispenser

*fisherbrand*

- Compact, easily transported foil dispenser
- Stable with non-slip base
- Safety blade is integrated into the cover



Cat. No	Description	Dimensions (w x d x h), mm	Pack qty
<b>11957994</b>	Foil dispenser, ABS, blue	190 x 100 x 120	1
<b>Compatible foils</b>			
<b>11967994</b>	Aluminium foil for foil dispenser	102mm x 153m	1 Roll
<b>11977994</b>	Aluminium foil for foil dispenser	153mm x 153m	1 Roll

### Bins, dispensing, bench top

*fisherbrand*

- Ideal for holding many different laboratory items such as micro-centrifuge tubes
- Ergonomically designed with large, angled openings and oversized lip
- Lid remains open when tilted back
- Green bin includes removable divider
- With non-skid rubber feet and pre-drilled holes for wall mounting (hardware included)



Cat. No	Description	Colour	Dimensions, (w x d x h), mm	Pack qty
<b>11304065</b>	Benchtop dispensing bin, with removable divider	Neon green	180 x 155 x 165	1
<b>11314065</b>	Benchtop dispensing bin	Neon blue	155 x 155 x 170	1

### Containers, PTFE

*fisherbrand*

- Isostatically moulded from pure PTFE with thick wall construction, smooth internal finish and screw cap
- Stackable



Cat. No	Volume, mL	Height, mm	O.D., mm	Pack qty
<b>10313502</b>	15	34	34	1
<b>10323502</b>	30	62	34	1
<b>10140342</b>	60	46	60	1
<b>10291952</b>	120	62	72	1
<b>10199901</b>	240	100	72	1
<b>10724143</b>	360	95	90	1
<b>10393882</b>	480	125	90	1
<b>10363602</b>	1000	160	110	1

### Containers, specimen, polyethylene with LDPE lids

*fisherbrand*

- Designed for collection, transport and storage of liquid and dry specimens and samples
- Moulded of autoclavable high quality HDPE, with thick walls
- Inert to most chemicals including formaldehyde, weak acids and all bases
- Resist freezing and boiling
- Easy to write on with pen or pencil
- Stackable for compact storage
- Come with LDPE lids (non-autoclavable)



Cat. No	Volume, mL	Colour	Product style	Pack qty
<b>12029977</b>	120	Translucent	Short/wide	300
<b>11709388</b>	120	Translucent	Tall/thin	300
<b>12049977</b>	240	Translucent	Short/wide	100
<b>11719388</b>	240	White	Short/wide	100
<b>11974375</b>	240	Translucent	Tall/thin	100
<b>12029957</b>	240	White	Tall/thin	100
<b>12089977</b>	473	Translucent	Multipurpose	100
<b>11994375</b>	473	White	Multipurpose	100
<b>12089947</b>	1100	Translucent	Multipurpose	100
<b>12009957</b>	1900	Translucent	Multipurpose	50
<b>12009967</b>	1900	White	Multipurpose	50
<b>12039957</b>	2500	Translucent	Multipurpose	25
<b>12069967</b>	2500	White	Multipurpose	25
<b>12099957</b>	5100	Translucent	Multipurpose	10
<b>12089967</b>	5100	White	Multipurpose	10

### Containers, specimen, polypropylene, autoclavable

*fisherbrand*

- For use with liquid, semi-solid and solid samples
- Inert to most chemicals
- Graduated
- With or without non-autoclavable polyethylene snap-on lid
- Sterile containers with lids are individually wrapped
- Non-sterile and sterile containers without lids are bulk packed



Cat. No	Volume, mL	Colour	Lid included	Sterile	Pack qty
<b>11779378</b>	130	Translucent	Yes	Yes	100
<b>11769378</b>	130	Translucent	No	Yes	500
<b>11964395</b>	130	Translucent	No	No	500
<b>11799378</b>	240	Translucent	Yes	Yes	100
<b>11789378</b>	240	Translucent	Yes	Yes	500
<b>11984375</b>	240	Translucent	No	No	500

Accessories					Pack qty
Cat. No	Description				Pack qty
<b>11924395</b>	Lids for specimen containers				500
<b>11974385</b>	Lids for specimen containers				500

## Containers, translucent polypropylene, *fisherbrand* heavy weight

- Ideal for general laboratory applications
- Excellent chemical resistance
- Polypropylene screw closure - leakproof
- Autoclavable with cap loosened



Cat. No	Volume, mL	Height, mm	Cap size, mm	O.D., mm	Pack qty
11523242	30	45	33/R3	36	10
11533242	60	80	33/R3	36	10
11543242	125	93	38/R3	50	10
11553242	150	68	58/R3	60	10
11563242	250	114	58/R3	61	10
11573242	500	140	58/R3	76	10
11583242	1000	200	70/R3	90	5

## Dispenser, ear plugs, Clearly Safe™ *fisherbrand*

- Translucent acrylic dispenser for ear plugs
- Flip-top lid for easy refilling and tilt open bottom lid for dispensing, which remain in place whilst the unit is in use
- Holds approximately 200 pairs of foam earplugs
- Can be set on a worktop or wall mounted (screws provided)



Cat. No	Dimensions (w x d h), mm	Pack qty
11507473	203 x 203 x 406	1

## Dispensers, Parafilm™ *fisherbrand*

- Stores, dispenses and cuts Parafilm™ tape and labels



Cat. No	Description	Dimensions, (w x d x h), mm	Pack qty
11865993	ABS dispenser, green	171 x 120 x 144	1
11875993	ABS dispenser, red	171 x 120 x 144	1
11350040	ABS dispenser, blue	171 x 120 x 144	1
11350040	ABS dispenser, clear	168 x 119 x 175	1

## Dispenser, safety, Clearly Safe™ 3-in-1 *fisherbrand*

- Three-in-one acrylic dispenser provides easy access to a variety of safety products
- The safety spectacle compartment holds approximately 20 pairs of spectacles and the ear plug compartment approximately 50 to 100 pairs of foam ear plugs
- The dispenser can be positioned on a worktop or wall mounted (screws provided)



Cat. No	Dimensions (w x d x h), mm	Pack qty
11927984	406 x 203 x 406	1

## Dispensers, safety spectacles, Clearly Safe™ *fisherbrand*

- Easy access translucent dispenser
- Flip open fill from top, with tilt-open bottom for ease of use
- Can be set on counter top or wall mounted



Cat. No	Description	Pack qty
11803470	Spectacles dispenser, holds 4 to 6 pairs, 227mm x 162mm x 156mm	1
11893460	Spectacles dispenser, holds approximately 20 pairs, 203mm x 203mm x 406mm	1

You may also be interested in our **new range of safety glasses and goggles on page 102**



## Dispensing bins, acrylic *fisherbrand*

Made from 3mm thick, clear acrylic, each container has hinged lids ideal for rapid filling and dispensing of a range of small laboratory or office items such as pipette tips, tubes, fittings, syringe filters, septa, paper clips or rubber bands etc.



Cat. No	Dimensions (w x d h), mm	No. of compartments	Pack qty
11764834	184 x 194 x 232	1	1
11774834	150 x 177 x 368	2	1
11907994	210 x 160 x 210	3	1
11784834	287 x 170 x 217	4	1

## Glove box holders, wire *fisherbrand*

- Epoxy coated steel wire racks which hold most major brands of glove boxes
- Available as single box or as three box holders
- Wall mounting screws included



Cat. No	Description	Dimensions, (w x d x h), mm	Pack qty
11885843	One box holder	140 x 108 x 208	1
11895843	Three box holder	250 x 108 x 454	1

## Glove box holders, acrylic

fisherbrand

- Wall mounted, clear acrylic holders for easy dispensing of gloves
- Each holder includes a polyester foam insert to securely hold a range of glove box sizes
- Fit ensures easy removal of gloves
- Available in three sizes
- Wall mount screws included



Cat. No	Description	Dimensions (w x d x h), mm	Pack qty
11897102	1 box holder	141 x 260 x 110	1
11807112	2 box holder	295 x 260 x 110	1
11817112	3 box holder	295 x 385 x 110	1

## Sample dippers, PTFE

fisherbrand

- PTFE sampling container with a detachable 600mm long steel shaft encapsulated in PTFE



Cat. No	Volume, mL	Diameter, mm	Pack qty
10156620	100	54	1
10369690	250	66	1
10536522	500	80	1
10126670	1000	100	1

## Scoops, polypropylene

fisherbrand

- For powdered or granular materials
- Range of capacities
- Sturdy moulded polypropylene
- Non-sterile



Cat. No	Volume, mL	Length, overall, mm	Pack qty
11567852	25	135	5
11577852	50	160	5
11587852	100	200	5
11597852	250	260	1
11507862	500	315	1
11517862	1000	385	1

## Storage unit, benchtop

fisherbrand

- Workstation storage unit ideal for keeping most commonly used disposables in one location
- Clear acrylic unit has room to store boxes of gloves, Parafilm™, tubes, tips and other small laboratory and office items



Cat. No	Description	Dimensions (w x d x h), mm	Pack qty
11927994	Bench top storage unit	265 x 137 x 440	1

## Storage containers, Tubby™

fisherbrand

- Stackable storage containers to help with laboratory organisation or transportation of products
- Removable dividers
- For keeping gloves, tubes, tips, pipettes and other small items organised and tidy
- Stackable and proportionately sized to utilise space efficiently



Cat. No	Description	Dimensions, (w x d x h), mm	Pack qty
11938014	Tubby™ five pack, includes 5 tubs, 5 lids and 15 dividers	330 x 200 x 115	5

## Storage sets, MagLab™

fisherbrand

- Each rack features four powerful magnets for a secure hold onto most metal surfaces
- Alternatively, mount on non-metallic surfaces with a self-adhesive metal mounting plate (included)



Cat. No	Description	Colour	Dimensions (l x w x h), mm	Pack qty
11942581	Complete storage system, includes MagRack™, MagWipe™, MagPetite™ and MagBox™	Assorted	522 x 393 x 102	4
11982581	MagRack™ for 15mL and 50mL conical tubes	Blue	131 x 112 x 64	1
11992581	MagWipe™ tissue box holder	Green	130 x 91 x 98	1
11932581	MagPetite™ pipettor holder	Purple	131 x 112 x 76	1
11922591	MagBox™ storage box	Orange	130 x 78 x 102	1

## Storage tray, polypropylene, sample

fisherbrand

- Constructed from corrugated polypropylene
- Moisture resistant, significantly reducing the chance of mould
- Lightweight and sturdy to hold up to 24 full specimen containers
- Stackable with other trays
- Removable dividers allows just the outer shell to be used for storage or transport of laboratory products
- Supplied flat-packed
- Pack includes 10 trays and 10 dividers
- Disposable



Cat. No	Wells	Well diameter, mm	Dimensions (l x w x h), mm	Colour	Pack qty
15376548	24	58	406 x 260 x 89	White	10



## Swabs

- All swabs have a round, compact and shred resistant head for sample taking
- Produced under strict ISO 9002/EN 29002 standards. CE marked No. 98 06 0119, Class II A



Cat. No	Description	Dimensions, mm	Pack qty
<b>Sterile in tube, sterilised by ethylene oxide</b>			
<b>11502483</b>	Wood with cotton tip	150 x 2.5	500
<b>11512483</b>	Polystyrene with cotton tip	150 x 2.5	500
<b>11522483</b>	Aluminium with cotton tip	150 x 0.9	500
<b>11532483</b>	Snappable polystyrene with PETE tip	150 x 2.5	500
<b>11542483</b>	Wood with cotton tip	150 x 2.5	1000
<b>Transport swabs, sterile in peel pack, sterilised by irradiation, expires 30 months after sterilisation date</b>			
<b>11562483</b>	Amies. Snappable polystyrene applicator with viscose tip	150 x 2.5	100
<b>12977960</b>	Amies, with charcoal. Snappable polystyrene applicator with viscose tip	-	100
<b>Non-sterile</b>			
<b>11572483</b>	Polypropylene with cotton tip	150 x 2.5	4000
<b>11582483</b>	Snappable polystyrene PETE tip	150 x 2.5	4000
<b>11592483</b>	Aluminium with cotton tip	150 x 0.9	1000
<b>12977970</b>	Wood with cotton	150 x 2.5	10000

fisherbrand

## Transport box, polycarbonate

fisherbrand

- Ideal for transporting biological and clinical samples, as well as instruments and products that you want to keep clean and dry under testing environmental conditions
- Polycarbonate construction
- Available in three colours
- Silicone water-tight seal and three lid clasps provide secure closure
- Carry handle folds neatly into body space allowing the units to be stacked
- Lid opens a full 180°, allowing total access to contents and making it easier to clean
- Accommodates 13mm and 16mm tubes in a 72 place Delrin rack or similar sized rack
- Use the separators provided to create your own compartment sizes, or use empty to transport larger products and equipment
- Autoclavable



Cat. No	Colour	Dimensions (w x d x h), mm	Pack qty
<b>15165564</b>	Clear with blue handle	380 x 196 x 160	1
<b>15175564</b>	Red with red handle	380 x 196 x 160	1
<b>15155564</b>	Yellow with yellow handle	380 x 196 x 160	1

fisherbrand

## Focus on Fisherbrand

for all your  
**sampling and  
storage** needs

For full range refer to [www.eu.fishersci.com/go/fisherbrand](http://www.eu.fishersci.com/go/fisherbrand)

**fisher**scientific  
by Thermo Fisher Scientific

## WATER PURIFICATION

Our new range of Fisherbrand water purification systems provide Type 1 water suitable for a wide range of applications such as HPLC, GC, AAS, immunocytochemistry, mammalian cell culture and plant tissue culture.

### Water cartridges, demineralisation

*fisherbrand*

- Allows the production of high purity demineralised water
- Conductivity: 0.3 to 2µS/cm
- Maximum pressure: 4 bar at ambient temperature
- Flow rate: 150L/hr
- Maximum temperature: 25°C
- Cartridge dimensions 230 x 600mm
- No electrical connection required
- Includes connections, 4m hose, shut-off valve, screws, quick coupling kit, flow control valve and pressure reducer
- Shelf life: Two years (in its original packaging, at ambient temperature)



Cat. No	Description	Pack qty
<b>11914169</b>	Demineralised water cartridges, three-set	1
<b>11924169</b>	Demineralised water cartridges, four-set	1
<b>11934169</b>	Demineralised water cartridges, five-set	1
<b>Accessories</b>		
<b>11944169</b>	Set of replacement cartridges for Cat. No 11914169	1
<b>11954169</b>	Set of replacement cartridges for Cat. No 11924169	1
<b>11964169</b>	Set of replacement cartridges for Cat. No 11934169	1

### Water cartridges, ultrapure bench stand set

*fisherbrand*

- Provides high purity water at the place of use
- Delivered assembled and ready to use, with quick coupling kit to tap
- No electrical connection required
- Saturation visible by discolouration of R2 columns
- Change columns easily by unscrewing nuts
- Conductivity: <1µS/cm
- pH (at 20°C): 5.5 to 7
- Saturation: coloured indicator on R2 ion exchangers
- Maximum pressure: 3 bar at ambient temperature (2.5 bar recommended)
- Flow rate: until 30L/hr
- Maximum temperature 25°C
- Dimensions, mm: 630 x 170 x 170
- Weight: 6kg
- Shelf life: Two years (in its original packaging, at ambient temperature)



Cat. No	Description	Pack qty
<b>11924199</b>	Ultrapure bench stand set	1
<b>Accessories</b>		
<b>11934199</b>	Set of replacement cartridges for Cat. No 11924199	1

### Water cartridges, deionisation

*fisherbrand*

- Purify water with these single-use cartridges
- Direct connection to the water network
- No electrical connection required
- Detect the saturation by colour change
- Small dimensions allow easy installation
- At saturation, the resin cartridges are simply discarded
- A transparent housing to monitor the saturation of the resin without auxiliary measurement
- The disposable cartridges contain only new resins
- The performance level is constant and guaranteed
- Pressure 3 bar
- Operating temperature 10 to 35°C
- Dimensions (h x d) 500 x 60mm
- Weight 1.35kg
- Applications: dishwashing, cooling circuit filling, batteries, radiators, antifreeze preparation, photo development
- Choice of different cartridges depending on your requirements



Shelf life: Two years (in its original packaging, at ambient temperature)

Cat. No	Description	Conductivity, µS/cm	Saturation	Flow rate, L/hr	Pack qty
<b>11944159</b>	Deionisation cartridge	3.5 to 10	Indicator goes from green to purple after exchange of 893 Meq	20	1
<b>11954159</b>	Deionisation cartridge	0.3 to 2	Indicator goes from blue to ochre after exchange of 715 Meq	20	1
<b>11994159</b>	Filtration cartridge, for	0.3 to 2	Not visible by colour change	20	1
<b>11984159</b>	Pretreatment ORC cartridge	—	Not visible by colour change	60	1
<b>11914199</b>	Low TOC cartridge	0.3 to 2	Not visible by colour change	30	1
<b>Accessories</b>					
<b>11974169</b>	Pressure reducer				1
<b>15166113</b>	Renovation valve kit				1
<b>11954179</b>	Polypropylene FLF filter, 0.22µm				1
<b>11904169</b>	KCR quick coupling kit, includes 1 x spigot, 1 x fitting, 1 x bi-conical quick coupling connection, 2 x seals				1
<b>11934179</b>	Elbow fittings for bracket				1
<b>11944179</b>	Straight fitting for 83004/4				1
<b>11954199</b>	Bench stand for four cartridges				1
<b>11964159</b>	Wall bracket for cartridge				1
<b>11964179</b>	Wall bracket for filter Cat. No 11954179				1
<b>11974159</b>	Wall bracket with manual valve				1
<b>11994199</b>	Bracket for filter on bench stand				1

## Water systems, ultrapure, ACCU20

fisherbrand

- This compact system provides an easy way to produce ultrapure water or RO water on demand from tap water directly with no additional pre-treatment filters
- The system is equipped with a safeguard ACCUDuo 'P' pack cartridge and a dual-column ACCUDuo 'U' pack ultrapurification cartridge to ensure optimum quality of the final product water
- No external storage tank is required, which eliminates the risk of water degradation by contaminants from the container or the tubing
- The fully automatic controlled and maintained system contains automatic cleaning cycles and self-maintenance functions for the RO membrane, which increases the lifetime and efficiency of the RO membranes as well as the cartridges
- Automatic hourly system recirculation in the loop prevents bacterial growth and maintain water purity at all times
- System status and key quality parameters are clearly displayed on large LCD screen for easy system performance monitoring
- Warranty: Two years (water system only)



Cat. No	Description	Pack qty
<b>Water systems</b>		
15489689	ACCU20 Ultrapure water system	1
15499689	ACCU20 UV Ultrapure water system	1
<b>Consumables</b>		
15449719	ACCUDuo P pack cartridge	1
15489729	ACCUDuo U pack cartridge	1
15499729	ACCUDuo U pack cartridge with a 0.2µm PES capsule filter	1
15409739	ACCUDuo U pack cartridge (low TOC)	1
15449669	Reverse osmosis membrane with housing	1
15469689	185/254nm dual-wavelength UV lamp	1

## Water systems, ultrapure, ACCU100

fisherbrand

- Produces Type I ultrapure water from RO, distilled or deionised water
- Produces up to 100L of ultrapure water for critical laboratory applications
- Product water quality meets or exceeds CLSI and CAP Type I water standards
- System is CE and FCC certified
- Warranty: Two years (water system only)



Cat. No	Description	Pack qty
15489749	ACCU100 Ultrapure water system	1
15499749	ACCU100 UV Ultrapure water system	1
15409759	ACCU100 UV Ultrapure water system, with dispenser	1
<b>Consumables</b>		
15479709	ACCUQuatro U pack cartridge (RO Feed)	1
15499709	ACCUQuatro U pack cartridge (DI Feed)	1
15419719	ACCUQuatro U pack cartridge (Low TOC)	1
15489709	ACCUQuatro U pack cartridge kit with 0.2µm final filter (RO Feed)	1
15409719	ACCUQuatro U pack cartridge kit with 0.2µm final filter (DI Feed)	1
15409659	PES capsule filter 0.2µm	1
15449689	UV lamp, dual wavelength 185/254 nm	1

## Water systems, ultrapure, ACCU500

fisherbrand

- Produces ultrapure and reverse osmosis (RO) water from tap water directly
- Quality of ultrapure water meets or exceeds ASTM, CLSI, CAP, and ISO Type I water standards
- The system is CE and RoSH certified
- The remote dispenser has a built-in high precision resistivity sensor with cell constant of 0.01cm<sup>-1</sup> to measure the quality of ultrapure water just prior to the dispensing point
- Warranty: Two years (water system only)



Cat. No	Description	Pack qty
<b>Water systems</b>		
15409699	ACCU500 Ultrapure water system, 10L	1
15429699	ACCU500 Ultrapure water system, 15L	1
15449699	ACCU500 Ultrapure water system, 20L	1
15469699	ACCU500 Ultrapure water system, 30L	1
15419699	ACCU500 UV Ultrapure water system, 10L	1
15439699	ACCU500 UV Ultrapure water system, 15L	1
15459699	ACCU500 UV Ultrapure water system, 20L	1
15479699	ACCU500 UV Ultrapure water system, 30L	1
15409709	ACCU500 UV Ultrapure water system, 10L, with dispenser	1
15419709	ACCU500 UV Ultrapure water system, 15L, with dispenser	1
15429709	ACCU500 UV Ultrapure water system, 20L, with dispenser	1
15439709	ACCU500 UV Ultrapure water system, 30L, with dispenser	1
<b>Consumables</b>		
15459719	ACCUDuo H pack cartridge	1
15489729	ACCUDuo U pack cartridge	1
15499729	ACCUDuo U pack cartridge with a 0.2µm PES capsule filter	1
15409739	ACCUDuo U pack cartridge (low TOC)	1
15469689	185/254nm dual-wavelength UV lamp	1
15469669	Reverse osmosis membrane with housing, for ACCU500 10L/20L	1
15449669	Reverse osmosis membrane with housing, for ACCU500 15L/30L	1
15479679	30L PE tank	1
15489679	60L PE tank	1
15409669	Tank sanitisation module	1
15409689	Tank vent filter	1
15419759	Remote dispenser with sensor	1
15419669	Leak protector with auto water shut-off valve	1
15439759	Prefiltration kit (254mm, 3-stage)	1
15409649	Polypropylene depth filter, 254mm, 1µm	12
15419649	Polypropylene depth filter, 254mm, 10µm	12
15489639	Activated carbon cartridge, 254mm	12
15499639	Softening cartridge, 254mm	12

## WEIGHING

Our new range of high specification balances is complemented perfectly by a range of key accessories, including printer kits, weigh boats, funnels and spatulas meaning that you need look no further than Fisherbrand for your complete weighing requirements.

## Balances, analytical series

fisherbrand

- Weighing modes include weighing, parts counting and percentage weighing
- Large draft shield with sliding top and side doors
- Dimensions (w x d x h), mm: 196 x 320 x 287
- Linearity: 0.2mg
- Repeatability: 0.1mg
- Communication interface: RS232
- Warranty: Two years



Cat. No	Capacity	Calibration type	Readability	Pack qty
15395103	65g	Internal	0.1mg	1
15305113	210g	External	0.1mg	1
15315113	210g	Internal	0.1mg	1

## Accessories

Cat. No	Description	Pack qty
15380684	Auxiliary display PAD7	1
11850133	Density kit for solids	1
10591982	Anti-theft device	1
12008548	In use display cover	1
15390684	Sinker glass density kit for liquids	1
13445129	Impact printer for portable, analytical, precision and moisture series balances	1
15377904	Impact printer cable for analytical, precision and moisture series balances	1
15367904	Impact printer paper rotary axis	1
10656704	Impact printer paper roll (57.5mm, pack of 2)	2
15276939	Impact printer ink ribbon cassette	1

## Balances, compact series

fisherbrand

- Sleek, low profile design
- Large, high contrast LCD
- Storage made easy with a stackable design
- Integrated load cell lock
- Over-load and under-load indicators
- Low battery indicator
- Three AA batteries (included) or optional a.c. adapter
- Stabilisation time: 3 seconds
- Dimensions (w x d x h), mm: 140 x 200 x 40
- Warranty: Two years



Cat. No	Capacity	Calibration type	Readability, g	Pack qty
15305103	200g	External	0.1	1
15315103	500g	External	0.1	1
15325103	2000g	External	1.0	1
15335103	5000g	External	1.0	1

## Accessories

Cat. No	Description	Pack qty
11782148	Power adapter (universal plug set 11792148 also required)	1
11792148	Universal plug set	1
15360684	Stainless steel pan cover	1
15370684	Hard shell carrying case	1
10679092	Bowl container 1050mL	1

## Balances, portable series

fisherbrand

- Excellent shock resistance and overload protection
- Large, high contrast LCD
- 50 hour battery life with auto shut-off
- Two button operation
- Shipping and calibration locks
- Integral weigh-below hook, critical for density or specific gravity determination
- Optional RS232 or USB snap-in module allows data connection to PC or printer
- AC adapter (included) or requires four AA batteries (not included)
- Dimensions (w x d x h), mm: 192 x 210 x 54
- Warranty: Two years



Cat. No	Capacity	Calibration type	Readability	Pack qty
15365103	120g	External	0.001g	1
15345103	200g	External	0.01g	1
15355103	600g	External	0.01g	1
15375103	2000g	External	0.1g	1
15385103	6000g	External	0.1g	1

## Accessories

Cat. No	Description	Pack qty
11860871	Density kit	1
12632613	In use cover	1
10591982	Anti-theft device	1
10382992	Hard shell carrying case	1
11742158	RS232 interface with cable	1
11752158	USB kit	1
13445129	Impact printer for portable, analytical, precision and moisture balances	1
15357904	Impact printer cable adapter for portable series (requires Cat. No 11742158, RS232 interface with cable)	1
15367904	Impact printer paper rotary axis	1
10656704	Impact printer paper roll (57.5mm, pack of 2)	2
15276939	Impact printer ink ribbon cassette	1

## Balances, precision series

fisherbrand

- Single-line LCD display without backlight
- Three-button panel with dedicated and number functions
- RS-232 bidirectional interface
- Up-front level indicator - no need to look in back of balance during leveling process
- Stainless steel platform
- Works well in harsh environments: settings can be adjusted to compensate for vibrations and other disturbances
- Weighing modes include weighing, parts counting and percent weighing
- Includes AC power adapter
- Warranty: Two years



Cat. No	Capacity	Calibration type	Readability	Pack qty
15325113	210g	External	0.001g	1
15335113	410g	External	0.001g	1
15345113	410g	Internal	0.001g	1
15355113	2100g	External	0.01g	1
15385113	2100g	Internal	0.01g	1
15365113	4100g	External	0.01g	1
15375113	4100g	External	0.1g	1
15395113	4100g	Internal	0.01g	1

### Accessories

Cat. No	Description	Pack qty
15380684	Auxiliary display	1
10591982	Anti-theft device	1
12008548	In use display cover	1
13445129	Impact printer for portable, analytical, precision and moisture balances	1
15377904	Impact printer cable for analytical, precision and moisture balances	1
15367904	Impact printer paper rotary axis	1
10656704	Impact printer paper roll (57.5mm, pack of 2)	2
15276939	Impact printer ink ribbon cassette	1

## Balance, moisture analyser

fisherbrand

- Large backlit LCD display
- RS232 bi-directional interface
- Easy to clean heating chambers ideal for frequent use and inexpensive maintenance
- Compact footprint designed to take up less space
- Heating technology: halogen (50°C to 160°C in 5° increments)
- Repeatability (Std. Dev., g): 0.2% (3g sample) 0.05% (10g sample)
- 200V a.c. to 240V a.c., 3A, 50/60Hz
- Warranty: Two years



Cat. No	Description	Pack qty
15305123	Moisture analyser, model MBS65, 60g capacity, readability 5mg	1

## Microspatula set

fisherbrand

- Dispense and transfer samples during weighing
- Can also be used to apply micro amounts of adhesive for tacking down specimens, spreading paste and mixing granular samples
- Flat-ended stainless-steel blades
- Set of four sizes of blades: 0.1, 0.3, 0.5, and 1.0mm
- Overall length 26cm
- Each spatula has a plastic, colour-coded handle



Cat. No	Description	Pack qty
11734356	Microspatula set of 4	1 set

## Spatulas, metal

fisherbrand

- Spatulas, nickel and stainless steel
- Large Chattaway spatulas have a 3.6mm barrel
- Nickel and stainless steel microspatulas have a 1.6mm barrel



Cat. No	Length, mm	Width, mm	Pack qty
Nickel, drawn out flat to form narrow, bent blade at one end			
11593452	165	-	5
Stainless steel, lightweight, flat with rounded ends			
11776597	90	20	5
11786597	150	30	5
Stainless steel, heavyweight, with one spatulate end and one spoon end			
11756597	120	18	5
11533462	150	18	5
11864233	210	18	1
1 Nickel, Chattaway			
11553462	100	10	5
11814593	150	10	5
11824593	180	10	5
11583462	200	10	5
11834593	230	10	5
11716607	270	10	5
2 Stainless steel, Chattaway			
11726607	100	10	5
11513472	150	10	5
11523472	180	10	5
11573482	200	10	5
11533472	230	10	5
11523502	300	10	5
11533502	350	10	5
11563482	150	8	5
3 Nickel, double, spoon one end			
11716567	120	14	1
11726567	150	17	1
11736567	180	17	1
11746567	210	18	1
4 Nickel, flat taper blade			
11573492	120	25	5
11583492	180	35	1
Nickel, micro			
11706447	100	4	5
11593472	130	4	5
11503482	150	4	5
11513482	200	4	5
5 Stainless steel, micro			
11523482	100	4	5
11533482	130	4	5
11543482	150	4	5
11553482	200	4	5
6 Stainless steel, microspoon			
11746607	100	4	5
11593482	150	4	5
7 Stainless steel, trough/trulla			
11503492	150	8	5
11523492	176	20	5



## SpatulaBalance™, Traceable™

fisherbrand

- Three position soft touch keys in the handle tares (sets to zero), holds (freezes display) and changes grams to ounces
- Scoop detaches from balance for dishwasher safe cleaning
- LCD indicates low battery
- Markings on see-through scoop that comes as standard with the SpatulaBalance™ (Cat.No 15388764) are graduated from 5 to 30mL in 5mL increments for weighing liquids with ease
- Markings on see-through larger volume scoop (Cat. No 15398764) are graduated at 20 and 40mL



Cat. No	Range	Resolution	Accuracy	Scoop capacity	Pack qty
<b>11744416</b>	0 to 300g (0 to 10.580oz.)	0.1g (0.005oz.)	±0.2g or ±0.25%	30mL	1
<b>Accessories</b>					
Cat. No	Description	Pack qty			
<b>15388764</b>	30mL replacement scoop (graduated from 5mL to 30mL in 5mL increments)	1			
<b>15398764</b>	40mL large scoop (graduated at 20mL and 40mL)	1			

## Spatulas, disposable

fisherbrand

Size-related design to fit perfectly with standard 15 and 1.5mL tubes. Ideal for dispensing or sample collection of powders or soft solids

- Twin function spatulas, with a spoon at one end and a hollow scoop or pick at the other
- Will not shatter when used with samples frozen in liquid nitrogen
- Hollow core minimises heat transfer — good for hot and cold liquids
- Antistatic, sterile and eco-friendly versions available
- Autoclavable and complies with FDA standards for food contact
- Made of virgin, food-grade polypropylene
- Disposable



	Cat. No.	Description	Use with tubes	L x W	Spoon flare	Scoop or pick (L x H)	Pack qty
<b>1</b>	<b>15356558</b>	Micro antistatic	0.2 and 0.5mL	140 x 3.5mm	n/a	11mm L tapered @ 15° (V-tip)	300
<b>2</b>	<b>15326134</b>	Eco-friendly	15 and 1.5mL	140 x 7mm	25 x 14mm	30mm x 3mm	300
<b>3</b>	<b>15336558</b>	Standard blue	15 and 1.5mL	210 x 7mm	25 x 14mm	30mm x 3mm	300
<b>4</b>	<b>15346558</b>	Standard opaque	15 and 1.5mL	210 x 7mm	25 x 14mm	30mm x 3mm	300
	<b>15376558</b>	Standard opaque sterile	15 and 1.5mL	210 x 7mm	25 x 14mm	30mm x 3mm	100
<b>5</b>	<b>15366558</b>	Macro green	50mL	310 x 10mm	42 x 23.5mm	30mm L tapered @ 35°	150

## Weighing boats, aluminium, disposable

fisherbrand

- Ideal for sample weighing, dispensing, storage, food processing, evaporating or drying
- Sturdy yet lightweight boats feature a smooth, flat bottom for sample handling and a flanged, crimped wall for rigidity
- Finger tab handle can be etched for identification prior to weighing



Cat. No	Size	Dimensions (w x d), mm	Pack qty
<b>11998084</b>	Small	43 x 12	100
<b>11908094</b>	Medium	57 x 14	100
<b>11918094</b>	Large	70 x 16	100
<b>11988084</b>	Extra-large	108 x 8	50

## Weighing boats, disposable, paper

fisherbrand

- Environmentally friendly option for sample weighing
- A cost-effective solution to reduce plastics in the lab
- Made of greaseproof paper that meets FDA 21 CFR 176.170 (components of paper in contact with aqueous and fatty foods) and with 21 CFR 176.180 (contact with dry foods)
- Controls contents like a polystyrene weigh boat because they are easier to pour
- Easier to handle alternative than regular weighing papers
- Available in a small and medium in both brown for light coloured samples and white for dark samples



Cat No.	Size	Dimensions (l x w x h), mm	Colour	Pack qty
<b>15422214</b>	Small	35 x 35 x 15	Brown	500
<b>15432214</b>	Medium	45 x 45 x 15	Brown	500
<b>15408113</b>	Small	35 x 35 x 15	White	500
<b>15442214</b>	Medium	45 x 45 x 15	White	500
<b>HS120195</b>	Large	92 x 92 x 25	White	250

## Weighing boats, polystyrene

fisherbrand

- Flexible polystyrene boats feature smooth surfaces to provide accurate pour-outs with minimal sample loss
- Select white or black for best colour contrast to ensure sample is completely removed
- Biologically inert and resistant to dilute and weak acids, aqueous solutions, alcohols and bases. Temperature range -10 to 70°C
- Can be used with microwave moisture analysers
- All are FDA/food-grade compliant
- Available in regular or anti-static material formulation
- Disposable



Cat. No	Shape	Capacity, mL	Pack qty
<b>Standard black</b>			
12952850	Diamond	5	500
12962850	Diamond	30	500
12972850	Diamond	100	500
12982850	Square	10	500
12992850	Square	85	500
12902860	Square	280	500
<b>Anti-static black</b>			
12912860	Diamond	5	500
12922860	Diamond	30	500
12932860	Diamond	100	500
12942860	Square	10	500
12952860	Square	85	500
12962860	Square	280	500
<b>Standard white</b>			
12932840	Diamond	5	500
11573422	Diamond	30	500
12387552	Diamond	100	500
11593422	Square	10	500
11503432	Square	85	500
11513432	Square	280	500

## Weighing boats, polystyrene cont.

fisherbrand

<b>Anti-static white</b>			
12992840	Diamond	5	500
11533432	Diamond	30	500
11543432	Diamond	100	500
12922850	Square	10	500
11680302	Square	85	500
12608513	Square	280	500

## Weighing funnels, borosilicate glass

fisherbrand

- Ideal for weighing small quantities of powder
- Powder can be introduced via the tubular stem



Cat. No	Capacity, mL	Length, mm	Pack qty
11572902	3	70	1
11582902	6	85	1
11592902	10	100	1

## Weighing paper, sheets

fisherbrand

- Paper sheets for general weighing applications
- Sheet dimensions 100mm x 100mm
- Paper weight 45g/m<sup>2</sup>



Cat. No	Description	Pack qty
15619504	Weighing paper 45g/m <sup>2</sup> , 100 x 100mm	250

fisherbrand

Focus on Fisherbrand



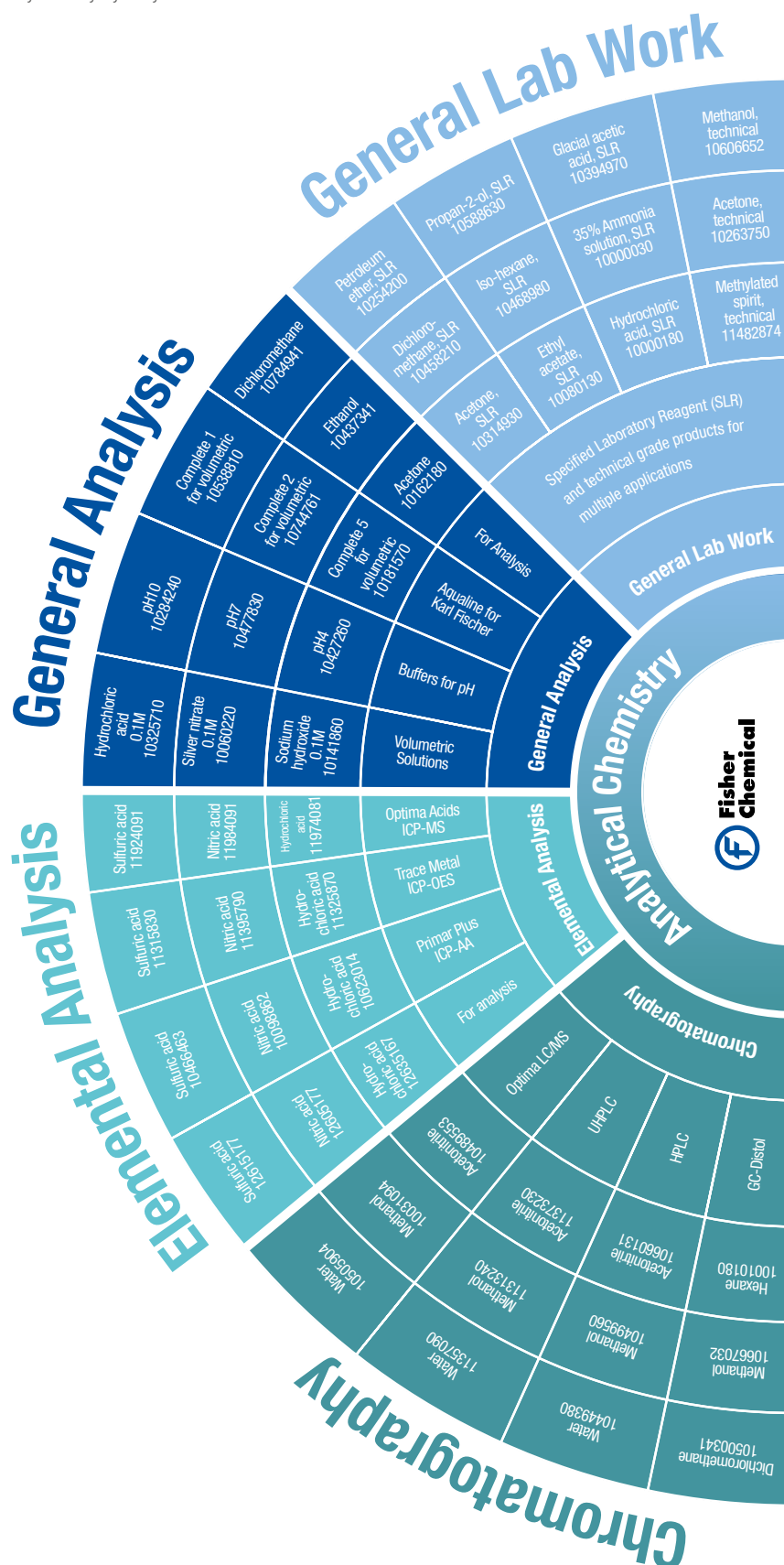
for all your  
**weighing** needs

For full range refer to [www.eu.fishersci.com/go/fisherbrand](http://www.eu.fishersci.com/go/fisherbrand)

**f** fisher scientific  
by Thermo Fisher Scientific

## Focus on Fisher Chemical and Fisher BioReagents

Depend on Fisher Chemical and Fisher BioReagents to provide products that meet your everyday analytical and life sciences needs.



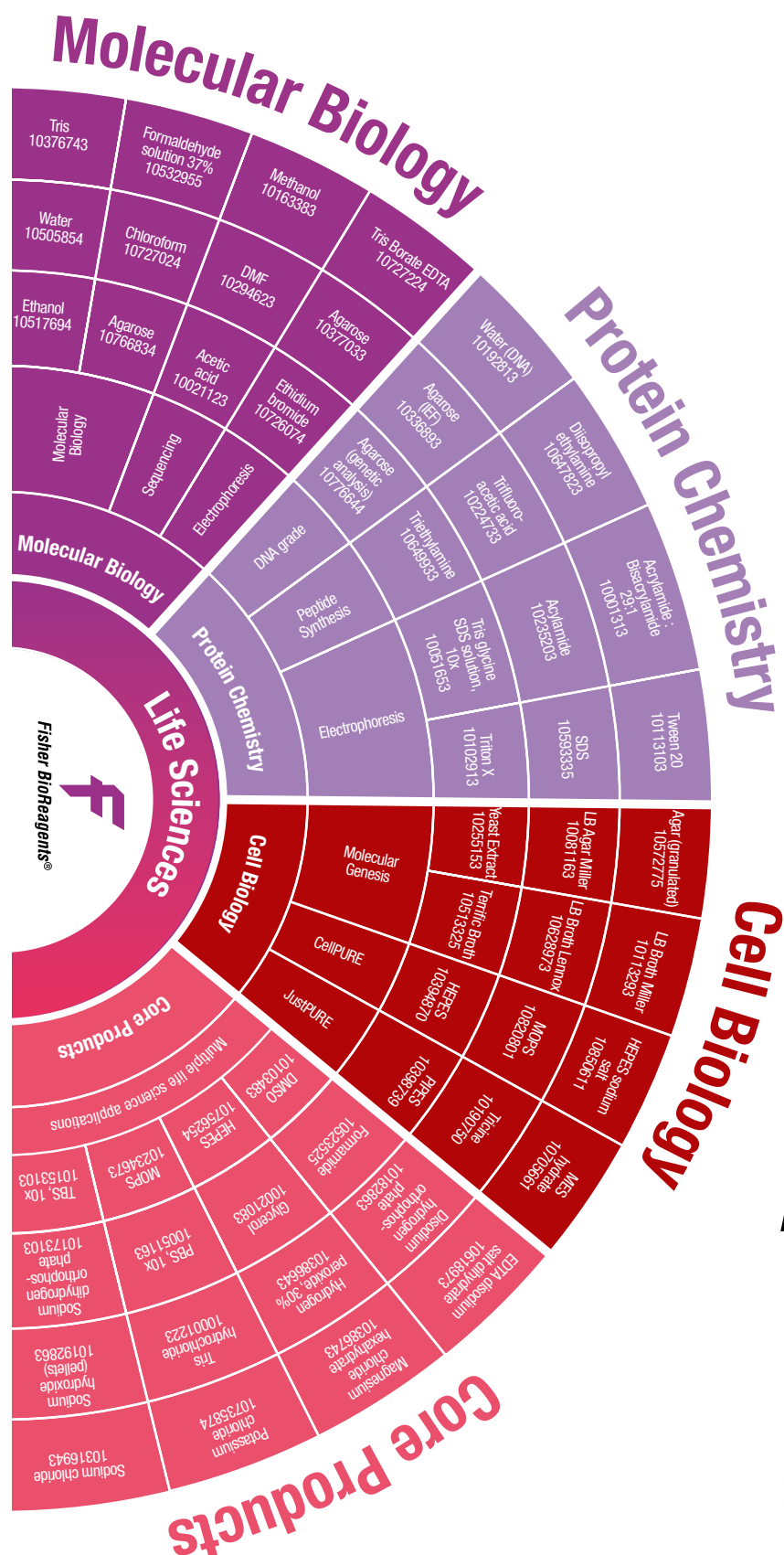
Fisher Chemical offers more than 4,000 products dedicated to four main application areas:

- Chromatography
- Elemental analysis
- General analysis
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Within each application area the main chemical grades are featured along with the most popular product and pack size. For further information on the complete ranges available visit:

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Fisher BioReagents®

Fisher BioReagents offer over 1,000 products dedicated to four key application areas:

- Molecular biology
- Protein chemistry
- Cell biology
- Core bioreagents

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## BIOREAGENTS

Fisher BioReagents offers over 1,000 specialty products solely dedicated to molecular biology research, biochemistry, cell culture and cellular biology. It is your single source for high purity products. If you can't quite find the exact item you are looking for or have any questions regarding our wider product portfolio of Fisher BioReagents, do not hesitate to contact your local Fisher Scientific representative.

### 2XTY Broth, granulated

- Easy to weigh, dust-free granules
- 2XYT Broth is an enriched medium used for faster bacterial growth and for growth of hosts replicating M13 factors
- Tested for growth promotion with various E. coli strains
- Shelf life is 3 years minimum when stored at room temperature
- Can be used with agar as a solidifying agent in bacteriological culture media

Cat. No	Description	Packaging type	Pack qty
15430675	2XYT Broth	Poly bottle	500g
15420685	2XYT Broth	Poly pail	2 kg
15430685	2XYT Broth	Poly pail	5 kg



### Agar, granulated and powder

- Superior grade agar for use as a solidifying agent for culture media
- Gel point 35°C
- Typical concentration is 1.5% agar (15g/L) in water
- Available as easy-dissolved granules or powder

Cat. No	Description	Packaging type	Pack qty
10572775	Agar, granulated	Poly bottle	500g
10153193	Agar, granulated	Poly pail	2 kg
15470665	Agar, powder	Poly pail	2 kg
15480665	Agar, powder	Poly pail	5 kg



### Agarose, broad separation range for DNA/RNA analysis

- Routine DNA electrophoresis; broad resolution range 500bp to 25kb
- Certified for recovery of DNA and RNA
- Reliable digestion and ligation of recovered DNA or RNA fragments

Specification:

Gelation temperature: 34.5° to 37.5°C

Gel strength: >1200g/cm<sup>2</sup>

Sulfate content: <0.15%

EEO (-Mr): <0.15

Moisture content: <10%

DNase: Not detected

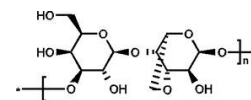
RNase: Not detected

Cat. No	Description	Packaging type	Pack qty
10688973	Agarose broad separation range for DNA/RNA, Genetic Analysis Grade	Poly bottle	100g



### Agarose, low-EEO multi-purpose, Molecular Biology Grade

- For routine electrophoresis of DNA and RNA
- Wide resolution range 500bp to 23kb
- High gel strength ideal for Southern and Northern blotting
- PCR >1kb
- Also used for immunoprecipitation techniques, Baculovirus screening and colony lifts



Specification:

Gelation temperature: 34.5°C to 37.5°C

Gel strength: >1200g/cm<sup>2</sup>

Sulfate content: <0.15%

EEO (-Mr): 0.09-0.13

Moisture content: <10%

DNase: Not detected

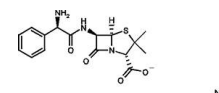
RNase: Not detected

Cat. No	Description	Packaging type	Pack qty
10766834	Agarose, low EEO multi-purpose, white crystals or crystalline powder, Molecular Biology Grade	Poly bottle	100g
10366603	Agarose, low EEO multi-purpose, white crystals or crystalline powder, Molecular Biology Grade	Poly bottle	500g

### Ampicillin sodium salt



For selection of ampicillin resistance in mutated and transformed cells. Antimicrobial spectrum: Gram-negative and Gram-positive bacteria. Also used for inhibition of microbial contamination in tissue culture and molecular biology procedures.



Cat. No	Description	Packaging type	Pack qty
10419313	Ampicillin, sodium salt	Poly bottle	25g



## Bovine serum albumin (BSA), Fraction V



- Heat-shock treated product suitable for immunological studies
- Cold ethanol precipitated product used as a stabiliser for enzymes or enzymatic reactions, or as a blocker of non-specific sites

Product specification:

Assay: ≥ 98%

Heavy metals: ≤ 0.002%

Moisture: ≤ 5%

pH of a 1% solution in 0.9% NaCl: 7.0 ± 0.3

Suitability (0.4g/10mL H<sub>2</sub>O): Clear and haze-free

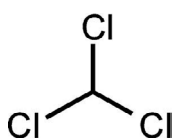
Sulfated ash: ≤ 2%

Cat. No	Description	Production type	Applications	Packaging type	Pack qty
11493823	Bovine serum albumin (BSA), reagent grade powder, Fraction V	Proprietary heat shock process	Immunological studies	Poly bottle	100g
11403833	Bovine serum albumin (BSA), reagent grade powder, Fraction V	Proprietary heat shock process	Immunological studies	Poly bottle	1 kg
11483823	Bovine serum albumin (BSA), protease-free powder, Fraction V	Modified Cohn fraction method	Stabiliser for enzymes or enzymatic reactions or as a blocker of non-specific sites	Poly bottle	100g

## Chloroform, for molecular biology



- BioReagent grade suitable for phenol/chloroform extractions
- Contains 0.75% ethanol as preservative

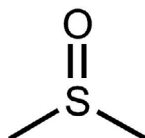


Cat. No	Description	Packaging type	Pack qty
10727024	Chloroform, contains approximately 0.75% ethanol as preservative, for molecular biology, ≥99% (by GC)	Glass bottle	1L

## Dimethyl sulfoxide



- A cryopreservation agent for cells
- May also be used in bacterial transformations

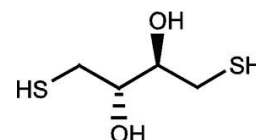


Cat. No	Description	Packaging type	Pack qty
10103483	Dimethyl sulfoxide, anhydrous, 99.7%	Glass bottle	100mL
10499683	Dimethyl sulfoxide, anhydrous, 99.7%	Glass bottle	1L

## Dithiothreitol, for electrophoresis



- Commonly used as reducing agent to disrupt disulfide bonds in proteins in SDS-PAGE
- Functionally tested for use in electrophoresis
- Tested for absence of DNase, RNase, and protease
- DTT is also used as an enzyme stabiliser during protein purification and enzymatic reactions

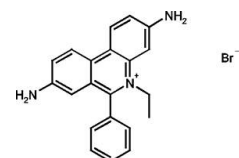


Cat. No	Description	Packaging type	Pack qty
10592945	Dithiothreitol (Clelands reagent, DTT), white crystals or powder, for electrophoresis, ≥99%	Glass bottle	5g
10386833	Dithiothreitol (Clelands reagent, DTT), white crystals or powder, for electrophoresis, ≥99%	Glass bottle	25g

## Ethidium bromide, 1% solution for molecular biology



- Ethidium bromide is an intercalating dye used in the visualisation of DNA and RNA in electrophoresis gels and caesium chloride density gradients
- Molecular biology grade
- DNase, RNase and protease-free
- Filtered through a 0.2 micron filter



Cat. No	Description	Packaging type	Pack qty
10132863	Ethidium bromide, 1% solution, for molecular biology	Amber poly bottle	10mL

## Ethylenediaminetetraacetic acid, disodium salt



- The disodium salt of EDTA is a chelating agent for metal ions
- Electrophoresis grade for use in SDS-PAGE buffer systems
- Used extensively in molecular biology to minimise metal ion impurities in other reaction buffers

Cat. No	Description	Packaging type	Pack qty
10618973	Ethylenediaminetetraacetic acid, disodium salt dihydrate, crystalline powder, for electrophoresis, ≥99.0%	Glass bottle	500g
10522965	Ethylenediaminetetraacetic acid, disodium salt dihydrate, crystalline powder, for electrophoresis, ≥99.0%	Poly bottle	1 kg

## FASTRun Tris-SDS-PAGE running buffer



- Ready-formulated Tris SDS PAGE running buffer, at 10X concentration
- Compatible with all commercially available protein electrophoresis tanks
- Cut the time you spend waiting for your SDS PAGE gels to finish by over 70% while providing comparable or better clarity over traditional buffers
- Novel buffer chemistry gives you better resolution, thus requiring fewer TG gel compositions to fully resolve proteins
- Compatible with Tris-Glycine SDS (SDS-PAGE) chemistry whether you buy premade or pour your own polyacrylamide gels



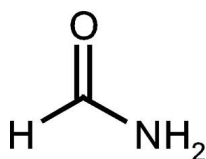
Cat. No	Description	Packaging type	Pack qty
15596006	FASTRun buffer, 10X	Poly bottle	500mL
15586006	FASTRun buffer, 10X	Poly bottle	1L

For up to date GHS information on Fisher BioReagents products listed please refer to the safety data sheet available from [www.eu.fishersci.com](http://www.eu.fishersci.com)

## Formamide, for molecular biology



- For nucleic acid hybridisation and sequencing
- Standard product requires user pretreatment with a mixed-bed resin
- Super-pure grade formamide has already been pre-treated with a mixed-bed resin so that it is ready for use in nucleic acid hybridisation and sequencing

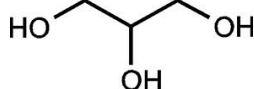


Cat. No	Description	Packaging type	Pack qty
10796834	Formamide, for molecular biology, ≥99%	Glass bottle	500mL
10523525	Formamide, super-pure, ≥99.5%	Amber glass bottle	100mL

## Glycerol, for molecular biology



- Specially prepared for molecular biology applications
- For low-temperature storage of enzymes and bacterial cultures
- Use also in purification of proteins and as a component in electrophoresis loading buffers
- DNase, RNase and protease free

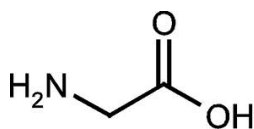


Cat. No	Description	Packaging type	Pack qty
10021083	Glycerol, for molecular biology, ≥99.5%	Glass bottle	1L
12144481	Glycerol, for molecular biology, ≥99.5%	Glass bottle	4L

## Glycine



- Highly purified for a range of life science applications
- Used in the preparation of tris-glycine electrophoresis buffer systems
- Used as a media component in cell and tissue culture
- Other amino acids chromatographically not detectable

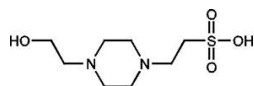


Cat. No	Description	Packaging type	Pack qty
10467963	Glycine, white crystals or crystalline powder, 98.5 to 101.0%	Poly bottle	500g
10061073	Glycine, white crystals or crystalline powder, 98.5 to 101.0%	Poly bottle	1 kg
10754724	Glycine, white crystals or crystalline powder, 98.5 to 101.0%	Poly pail	5 kg

## HEPES, for molecular biology



- Molecular biology grade
- Commonly used as a zwitterionic buffering agent
- DNase, RNase and protease-free
- Assay ≥99%

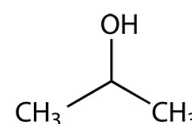


Cat. No	Description	Packaging type	Pack qty
<b>Fine white crystals</b>			
10397023	HEPES for molecular biology	Glass bottle	100g
10756254	HEPES for molecular biology	Poly bottle	500g
10081113	HEPES for molecular biology	Poly bottle	1 kg
10619163	HEPES for molecular biology	Poly pail	5 kg

## Isopropanol, for molecular biology

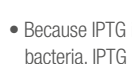


- Molecular biology grade
- Used in many fundamental applications in the biological sciences
- For protein and nucleic acid purification and precipitation
- For preservation of biological samples and specimens

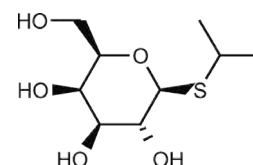


Cat. No	Description	Packaging type	Pack qty
11388461	Isopropanol ≥99.9%, for molecular biology	Glass bottle	500mL
11398461	Isopropanol ≥99.9%, for molecular biology	Glass bottle	1L
11358461	Isopropanol ≥99.9%, for molecular biology	Glass bottle	2.5L
11308471	Isopropanol ≥99.9%, for molecular biology	Glass bottle	4L

## Isopropyl-β-D-thiogalactopyranoside (IPTG), dioxane-free



- Because IPTG induces β-galactosidase activity in many bacteria, IPTG is used to maximise the expression of cloned genes under control of the lac operon
- Dioxane free

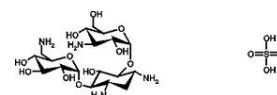


Cat. No	Description	Packaging type	Pack qty
10214633	IPTG, dioxane free, ≥99%	Glass bottle	1g
10356553	IPTG, dioxane free, ≥99%	Glass bottle	10g
10021793	IPTG, dioxane free, ≥99%	Glass bottle	100g

## Kanamycin sulfate

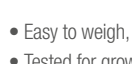


- For selecting transformed cells containing kanamycin resistance gene
- Kanamycin monosulfate also inhibits protein translocation
- It is also used to prevent microbial contamination in tissue culture applications and to confer antibiotic resistance or sensitivity in molecular biology procedures



Cat. No	Description	Packaging type	Pack qty
10031553	Kanamycin sulfate, white powder	Poly bottle	5g

## LB Agar, Lennox, granulated



- Easy to weigh, dust-free granules
- Tested for growth promotion with various E. coli strains
- Shelf life is 3 years minimum when stored at room temperature
- LB Agar (Lennox) formulation is suitable for the preparation of bacteriological pour plates

Cat. No	Description	Packaging type	Pack qty
15400675	LB Agar, Lennox	Poly pail	2 kg

## LB Broth, Lennox, granulated



- Provides a nutrient-rich environment to enable faster growth of *E. coli*
- Used as a microbial growth medium for the cultivation of *E. coli* strains for the preparation of plasmid DNA and recombinant proteins
- Formulation: casein peptone 10g/L, yeast extract 5g/L, sodium chloride 5g/L
- Directions for media preparation: add 20g to 1L of purified water, then adjust pH to 7.2. Heat and frequently agitate to completely dissolve. Sterilise by autoclaving for 15 minutes before use
- Format: granules

Cat. No	Description	Packaging type	Pack qty
11305992	LB broth, Lennox	Poly bottle	500g

## LB Broth, Miller, granulated



- Used as a microbial growth medium for the cultivation of *E. coli* strains for the preparation of plasmid DNA and recombinant proteins
- Granulated dried format for LB broth preparation
- Formulation: casein peptone 10g/L, yeast extract 5g/L, sodium chloride 10g/L
- Directions for use: add 25g to 1L of purified water then adjust pH to 7.2. Heat and agitate frequently to completely dissolve. Before use, sterilise by autoclaving for 15 minutes
- Sodium chloride concentration of the Miller formulation is twice the concentration of the Lennox formulation to allow for optimal salt concentration for specific strains

Cat. No	Description	Packaging type	Pack qty
11345992	LB broth, Miller granulated	Poly bottle	500g
11325992	LB broth, Miller granulated	Poly bottle	2 kg

## LB Agar, Miller, granulated



- Used as a microbial growth medium for the cultivation of *E. coli* strains for the preparation of plasmid DNA and recombinant proteins
- Typical directions for media preparation: add 32g to 1L of purified water and then adjust pH to 7.2. Heat and frequently agitate to completely dissolve and then sterilise before use by autoclaving for 15 minutes
- The sodium chloride concentration of this Miller formulation is 2X the concentration of the Lennox formulation to allow for optimal salt concentration for a specific strain
- Components: Casein peptone 10g/L, yeast extract 5g/L, sodium chloride 10g/L, agar 12g/L
- Agar provides solid support for growth
- Format: granules

Cat. No	Description	Packaging type	Pack qty
11375992	LB Agar, Miller, granulated	Poly bottle	500g
12887172	LB Agar, Miller, granulated	Poly bottle	2 kg

## LB Broth, Miller, powder



- Used for growing molecular biology strains of *E. coli*-containing recombinant plasmids
- Components (per L): tryptone, 10g; yeast extract, 5g; sodium chloride, 10g
- pH 7.0  $\pm$  0.2 at 25°C
- Format: powder

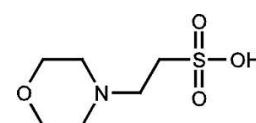


Cat. No	Description	Packaging type	Pack qty
10113293	LB broth, Miller powder	Poly bottle	500g
10638013	LB broth, Miller granulated	Poly pail	2 kg
11820715	LB broth, Miller, preweighed OptiGrow™, each pouch makes 1L	Pouches	10 pouches

## MES (2-(4-morpholino)ethane sulfonic acid)



- Commonly used buffering agent
- This biological buffer has a usable pH range of 5.5 to 6.7
- DNase and RNase-Free



Cat. No	Description	Packaging type	Pack qty
10419123	MES (2-(4-Morpholino)ethane sulfonic acid)	Glass bottle	100g

## LB Agar, Miller, powder



- Used as a microbial growth medium for the cultivation of *E. coli* strains for the preparation of plasmid DNA and recombinant proteins
- Directions for media preparation: suspend 40g in 1L of purified water, and heat to completely dissolve. Before use, sterilise by autoclaving for 15 minutes
- The sodium chloride concentration of the Miller formulation is twice the concentration of the Lennox formulation to allow for optimal salt concentrations for a specific strain
- Composition: tryptone 10g/L, yeast extract 5g/L, sodium chloride 10g/L, agar 15g/L
- Format: powder



Cat. No	Description	Packaging type	Pack qty
10081163	LB Agar, Miller (Powder)	Poly bottle	500g

## Methanol, peroxide-free, for sequencing



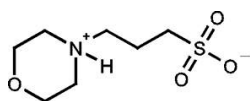
- For staining and destaining protein electrophoresis gels
- Peroxide-free for other biological science applications

Cat. No	Description	Packaging type	Pack qty
<b>10163383</b>	Methanol, peroxide-free for sequencing	Glass bottle	1L
<b>10785484</b>	Methanol, peroxide-free for sequencing	Glass bottle	4L

## MOPS (3-(4-morpholino)propane sulfonic acid), for molecular biology



- Commonly used buffering agent
- DNase, RNase and protease-free
- This biological buffer has a usable pH range of 6.5 to 7.9

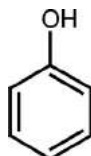


Cat. No	Description	Packaging type	Pack qty
Fine white crystals ≥97%			
<b>10234673</b>	MOPS for molecular biology	Glass bottle	100g
<b>10234723</b>	MOPS for molecular biology	Glass bottle	500g

## Phenol, saturated, liquid, pH 6.6/7.9, for molecular biology



- Phenol, saturated, with Tris buffer pH6.6/7.9
- Molecular biology grade
- Used in DNA extraction procedures
- Capped with a layer of buffer. The tris buffer is supplied separately and can be added to the solution to change the pH from 6.6 to 7.9



Cat. No	Description	Packaging type	Pack qty
<b>10001173</b>	Phenol, saturated (pH 6.6/7.9, liquid)	Amber glass bottle	400mL

## Phosphate buffered saline (PBS) CellPURE™



- CellPURE™ phosphate buffered saline provides an optimal formulation for cell biology experiments in which the osmolality of cells must be maintained
- Can also be used in biochemistry studies for maintaining proteins in a certain pH range
- Cell culture-tested
- Also tested for the absence of DNase, RNase, nickase, and protease
- This 10X concentrate will yield a 1X PBS solution containing 0.01M phosphate, 0.154M NaCl, and a pH of 7.4 at 25°C
- Intended for laboratory research use only

Cat. No	Description	Packaging type	Pack qty
<b>10212990</b>	PBS CellPURE™	PolyPac™	4L

## Phosphate buffered saline (PBS) preparations



- PBS is a standard buffer used in many biochemical applications to maintain pH
- Save time and simplify your PBS buffer preparation step by using Fisher BioReagents PBS tablets, powder sachets or liquid concentrates
- Eliminates the inconvenience of weighing and mixing individual components and avoids risk of error in their formulation
- Tablets: one tablet dissolved in 200mL water yields buffer containing 0.01M phosphate, 0.0027M KCl, and 0.137M NaCl, pH 7.4 at 25°C
- Powder sachets: each packet yields 1L of a 10X PBS solution containing 1.37M NaCl, 0.027M KCl, and 0.119M phosphates
- PBS 10X concentrates contain 1.37M NaCl, 0.027M KCl and 0.119M phosphates, simply dilute down as needed. The pH of a 1X solution made from these concentrated solutions is approximately 7.4

Cat. No	Description	Packaging type	Pack qty
<b>10468543</b>	PBX 10X solution	Poly bottle	500mL
<b>10204733</b>	PBX 10X solution	Poly bottle	1L
<b>12899712</b>	PBX 10X solution	Poly cube	4L
<b>10388739</b>	PBS tablets	Poly bottle	100 tablets
<b>10051163</b>	PBS 10X powder	Foil sachet	2 sachets

## Proteinase K



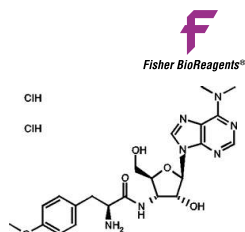
- For molecular biology
- From *Tritirachium album*
- Proteinase K is widely used in the isolation of DNA and RNA from cell and tissue preparations
- A wide-spectrum protease, inactivating many enzymes, including endogenous nucleases
- DNase and RNase free

Cat. No	Description	Pack qty
<b>10172903</b>	Proteinase K	50mg
<b>10103533</b>	Proteinase K	100mg
<b>10407583</b>	Proteinase K	500mg

## Puromycin dihydrochloride



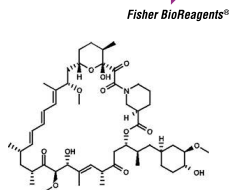
- Inhibits protein synthesis
- For selection of cells transfected with puromycin n-acetyl transferase gene (pac)
- Sourced from *Streptomyces alboniger*
- Susceptible organisms: Gram +ve and various animal and insect cells



Cat. No	Description	Packaging type	Pack qty
<b>Dry, white or off-white powder</b>			
<b>10054207</b>	Puromycin dihydrochloride	PolyPac™	100 mg

## Rapamycin

- Possesses immunosuppressive properties
- Blocks a protein that is involved in cell division
- A type of serine/threonine kinase inhibitor
- Susceptible organisms: yeasts and filamentous fungi
- Antineoplastic properties
- Sourced from *Streptomyces hygroscopicus*



Cat. No	Description	Packaging type	Pack qty
<b>10798668</b>	Rapamycin	Clear glass bottle	1mg

## SOB broth, capsules

- Used as a microbial growth medium for the cultivation of *E. coli* strains for the preparation of plasmid DNA and recombinant proteins
- Product is in capsule form - each capsule contains 14g of broth mix
- Directions for media preparation: add two capsules per 1L of purified water, heat and frequently agitate to completely dissolve capsule
- When reconstituted as described, contains casein peptone 20g/L, yeast extract 5g/L, sodium chloride 0.5g/L, magnesium sulfate 2.4g/L, potassium chloride 0.186g/L
- Before use, sterilise by autoclaving for 15 minutes

Cat. No	Description	Packaging type	Pack qty
<b>11396002</b>	SOB broth	Poly bottle	36 x 14g capsules

## Sodium chloride, for molecular biology

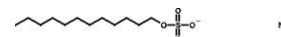
- Specially prepared for a wide range of bioscience applications
- Sodium chloride is a key component of many electrophoresis and molecular biology buffers
- Key growth media component

Cat. No	Description	Packaging type	Pack qty
<b>10316943</b>	Sodium chloride >99.5% (dry basis)	Poly bottle	1 kg
<b>10553515</b>	Sodium chloride >99.5% (dry basis)	Poly bottle	2.5 kg

## Sodium dodecyl sulfate, powder, for electrophoresis



- SDS is a commonly used detergent in protein purification and polyacrylamide gel electrophoresis (PAGE)
- SDS denatures proteins by disrupting the non-covalent bonds of the protein
- Functionally tested for use in electrophoresis
- DNase and RNase-free detergent for protein extraction procedures and polyacrylamide gel electrophoresis
- Intended for research use only; not for human or animal diagnostic purposes



Cat. No	Description	Packaging type	Pack qty
<b>For electrophoresis. White powder</b>			
<b>10593335</b>	SDS electrophoresis grade	Glass bottle	100g
<b>10356463</b>	SDS electrophoresis grade	Poly bottle	500g
<b>10593355</b>	SDS electrophoresis grade	Poly pail	5 kg

## Sodium dodecyl sulfate, pellets

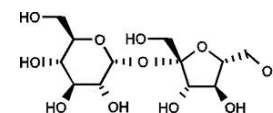
- High purity SDS micropellets with assay >98.0%
- Tested for DNase, RNase to ensure absence of these hydrolysing enzymes
- Safer pelletised form of SDS is nearly free of dust particles reducing the chance of inhalation during routine lab work
- Sodium dodecyl sulfate is the most commonly used detergent in protein purification and electrophoresis
- Convenient to use and easy to dissolve in tris-glycine solution for preparing electrophoresis buffers



Cat. No	Description	Packaging type	Pack qty
<b>15480685</b>	SDS micropellets	Poly pail	5 kg
<b>15440685</b>	SDS micropellets	Poly bottle	100 g
<b>15450685</b>	SDS micropellets	Poly bottle	500 g

## D-Sucrose, for molecular biology

- Molecular biology grade
- Suitable for the preparation of density gradients for DNA ultracentrifugation
- DNase, RNase and protease-free



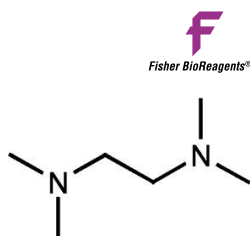
Cat. No	Description	Packaging type	Pack qty
<b>10638403</b>	D-Sucrose for molecular biology >99.9%	Poly bottle	1 kg
<b>10051413</b>	D-Sucrose for molecular biology >99.9%	Poly pail	10 kg



## TEMED, for electrophoresis



- N,N,N,N-Tetramethylethylenediamine
- For polymerisation of acrylamide/bis-acrylamide
- DNase, RNase and protease-free

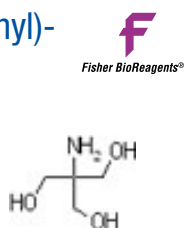


Cat. No	Description	Packaging type	Pack qty
10689543	TEMED for electrophoresis	Amber glass bottle	20g

## 'Tris' base (2-amino-2-(hydroxymethyl)-1,3-propanediol)



- Molecular biology grade
- DNase, RNase and protease-free
- Buffer component
- For molecular biology, tissue culture, and electrophoretic procedures



Cat. No	Description	Packaging type	Pack qty
10103203	Tris base	Poly bottle	500g
10376743	Tris base	Poly bottle	1 kg
10724344	Tris base	Poly pail	5 kg

## Tris buffered saline (TBS), 10X solution

- Save time and simplify your buffer preparation step by using concentrated Fisher BioReagents 10X TBS buffer solution
- A filtered and autoclaved ready-to-use stock TBS buffer
- Simply dilute as needed
- 10X solution contains 1.37M NaCl, 0.027M KCl and 0.25M tris
- To prepare a 1X solution, mix one volume of 10X TBS solution with 9 volumes of ultrapure water
- Tested for the absence of DNase, RNase, and protease
- TBS buffer is often used in immunodetection techniques
- Used as a washing buffer for alkaline phosphatase or peroxidase conjugates in Western blotting
- Intended for laboratory research use only

Cat. No	Description	Packaging type	Pack qty
10648973	Tris buffered saline (TBS), 10X solution	Poly bottle	100mL
10776834	Tris buffered saline (TBS), 10X solution	Poly bottle	1L

## Tris-acetate-EDTA (TAE) buffer, 50X solution for electrophoresis

- Save time and simplify your buffer preparation step by using Fisher BioReagents 50X TAE solution
- Simply dilute as needed
- 50X solution contains 2M tris-acetate and 0.050M EDTA
- To prepare a 1X solution, dilute with 49 volumes of ultrapure water
- Tested for the absence of DNase, RNase, and protease
- Filtered to 0.2µm, autoclaved, and functionally tested for use in electrophoresis applications
- TAE is a commonly used buffer for electrophoresis of nucleic acids in agarose gels
- Intended for laboratory research use only

Cat. No	Description	Packaging type	Pack qty
10457583	Tris-acetate-EDTA (TAE) solution 50X	Poly bottle	500mL
10490264	Tris-acetate-EDTA (TAE) solution 50X	Poly bottle	1L
10542985	Tris-acetate-EDTA (TAE) solution 50X	Poly cube	4L
10326463	Tris-acetate-EDTA (TAE) solution 50X	Poly cube	20L

## Tris-borate-EDTA (TBE) buffer, 10X solution for electrophoresis

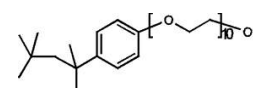
- Tris-borate-EDTA (TBE) is a commonly used buffer for electrophoresis of nucleic acids in agarose and polyacrylamide gels
- Save time and simplify your buffer preparation step by using Fisher BioReagents 10X TBE buffer solution
- Simply dilute as needed
- 10X solution contains 0.89M tris, 0.89M borate, and 0.02M EDTA
- To prepare a 1X solution, mix one volume of this 10X TBE solution with 9 volumes of ultrapure water
- Tested for the absence of DNase, RNase, and protease
- Functionally tested for use in electrophoresis applications
- Intended for laboratory research use only

Cat. No	Description	Packaging type	Pack qty
10727224	Tris-borate-EDTA (TBE) solution 10X	Poly bottle	1L

## Triton™ X-100 for electrophoresis



- Non-ionic detergent
- For solubilisation and permeabilisation of membrane proteins
- Electrophoresis grade



Cat. No	Description	Packaging type	Pack qty
10102913	Triton X-100 for electrophoresis	Poly bottle	100mL
10254583	Triton X-100 for electrophoresis	Poly bottle, EcoSafPak	500mL

For up to date GHS information on Fisher BioReagents products listed please refer to the safety data sheet available from [www.eu.fishersci.com](http://www.eu.fishersci.com)

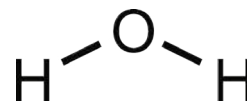
## Tryptone, granulated



- For microbiological media preparation
- An enzymatic digest of casein (milk protein)
- pH (at 25°C, 2% solution): 6.5 to 7.3
- Total nitrogen ≥10%, amino nitrogen ≥3.5%

Cat. No	Description	Packaging type	Pack qty
11365982	Tryptone	Poly bottle	500g
11385982	Tryptone	Poly bottle	2 kg

## Water, high purity for biological sciences



- Water Molecular Biology Grade: a general purpose water, RNase, DNase, nuclease and protease free
- Water DNase-Free Grade: DNase and protease-free and is suitable for all DNA work, filtered to 0.2µm
- Water Nuclease-Free DEPC Treated Grade: diethylpyrocarbonate (DEPC)-treated, is guaranteed nuclease-free (tested for both DNase and RNase), and is suitable for all RNA work
- Water RNA Grade: DEPC treated, autoclaved, guaranteed nuclease-free (tested for both DNase and RNase) and is suitable for all RNA work. It is also filtered through a 0.2µm filter
- Water Cell Culture Grade: 0.03µm filtered and autoclaved for critical cell culture processes

Cat. No	Grade	Filtered	Packaging type	Pack qty
10505854	Molecular Biology	0.03µm	Poly bottle	1L
10154604	Molecular Biology	0.03µm	Poly cube	4L
10517554	Molecular Biology	0.03µm	Poly cube	20L
10091543	BioTech	0.2µm	Poly cube	4L
10448153	BioTech	0.2µm	Poly cube	20L
10295243	DNase free	0.2µm	Poly bottle	50mL
10192813	DNase free	0.2µm	Poly bottle	1L
10245203	RNA grade, DEPC-Treated	0.2µm	Poly bottle	1L
10336503	Nuclease free, DEPC-Treated	0.2µm and autoclaved	Poly bottle	100mL
11343892	Cell Culture	0.03µm and autoclaved	Poly bottle	500mL
11313892	Cell Culture	0.03µm and autoclaved	Poly bottle	100mL
11373892	Cell Culture	0.03µm and autoclaved	Poly bottle	1L

## Tween™ 20



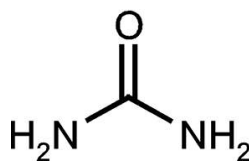
- Non-ionic detergent
- Used for membrane protein isolation
- Protease free

Cat. No	Description	Packaging type	Pack qty
10113103	Tween 20	Poly bottle	100mL
10485733	Tween 20	Poly bottle, EcoSafePak	500mL

## Urea, for molecular biology



- Molecular biology grade
- Used as a denaturing agent for DNA and proteins
- Component in sequencing gels
- DNase, RNase and protease-free



Cat. No	Description	Packaging type	Pack qty
Colourless-to-white crystals or crystalline powder			
10183333	Urea for molecular biology ≥ 99%	Poly bottle	500g
10173333	Urea for molecular biology ≥ 99%	Poly bottle	3 kg
10489683	Urea for molecular biology ≥ 99%	Poly pail	10 kg

## Yeast extract, for culture media



- Prepared specially for microbiological culture media
- Yeast autolysate with a high content of amino nitrogen and water soluble B complex vitamins

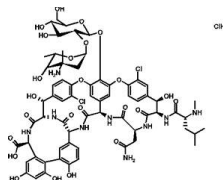


Cat. No	Description	Packaging type	Pack qty
10255153	Yeast extract, powder	Poly bottle	100g
10225203	Yeast extract, powder	Poly bottle	500g
11385992	Yeast extract, large granules	Poly bottle	500g
11365992	Yeast extract, large granules	Poly bottle	2 kg

## Vancomycin hydrochloride



- Inhibits formation of peptidoglycan polymers of bacterial cell walls
- Susceptible organisms: Gram +ve bacteria
- Sourced from *Streptomyces orientalis*



Cat. No	Description	Packaging type	Pack qty
10014257	Vancomycin hydrochloride	Amber glass bottle	1g

## CHEMICALS

Fisher Chemical offers more than 4,000 chemicals of the highest quality, including pure organic and inorganic compounds and reagents, ready-made solutions and high purity solvents. All chemicals are ISO 9001:2008 certified and undergo rigorous quality assurance and testing procedures, ensuring excellent lot-to-lot and bottle-to-bottle consistency. Supported by a clear and simple grade and application structure, choosing the product that best suits your requirements is easy.

However, if you can't quite find the exact item you are looking for or have any questions regarding the full product portfolio from Fisher Chemical, do not hesitate to contact your local Fisher Scientific representative.

### Acetic acid glacial



$C_2H_4O_2$	ADR/RID: 8, 3, II
CAS: 64-19-7	EINECS: 200-580-7
MW: 60.05	UN: 2789
Density at 20°C: 1.048	GHS: Flam. Liq. 3, Skin Corr. 1A
Boiling point: 117 to 118°C	H226, H314
Melting point: 16 to 16.5°C	P280, P305+P351+P338, P302+P352,
Flash point: 40°C	P304+P340, P210, P309+P311

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>Acetic acid glacial is equivalent to a strength of 17.4M (17.4N)</b>				
<b>10171460</b>	Acetic acid glacial, Certified AR for analysis	A/0400/PB15	Plastic	1L
<b>10304980</b>	Acetic acid glacial, Certified AR for analysis	A/0400/PB17	Plastic	2.5L

### Acetone



$C_3H_6O$	Melting point: -95°C/-139°F
CAS: 67-64-1	UN: 1090
MW: 58.08g/mol	H336, H319, H225, EUH066
Boiling point: 56°C/132.8°F	P261, P280, P305+P351+P338, P210,
	P240

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>SLR specified reagents for general laboratory work, extra pure</b>				
<b>10266481</b>	Acetone, extra pure, SLR	A/0560/15	Glass	1L
<b>10314930</b>	Acetone, extra pure, SLR	A/0560/17	Glass	2.5L
<b>Certified AR for analysis</b>				
<b>10162180</b>	Acetone, Certified AR for analysis	A/0600/17	Glass	2.5L
<b>10395640</b>	Acetone, Certified AR for analysis	A/0600/15	Glass	1L
<b>Distol™ for residue and pesticide analysis</b>				
<b>10161510</b>	Acetone, for residue analysis, Distol™	A/0603/15	Glass	1L
<b>10171510</b>	Acetone, for residue analysis, Distol™	A/0603/17	Glass	2.5L



### Acetonitrile



$C_2H_3N$	UN: 1648
CAS: 75-05-8	H319, H332, H302, H312, H225
MW: 41.05g/mol	P280, P302+P352, P301+P312,
Boiling point: 81°C/177.8°F	P304+P340, P305+P351+P338, P210,
Melting point: -46°C/-50.8°F	P240

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>Certified for HPLC</b>				
<b>10754361</b>	Acetonitrile, for HPLC	A/0626/15	Glass	1L
<b>10407440</b>	Acetonitrile, for HPLC	A/0626/17	Glass	2.5L
<b>HPLC gradient analysis grade</b>				
<b>10799704</b>	Acetonitrile, HPLC-MS	A/0638/15	Glass	1L
<b>10616653</b>	Acetonitrile, HPLC-MS	A/0638/17	Glass	2.5L
<b>Certified for HPLC-MS</b>				
<b>10660131</b>	Acetonitrile, HPLC for Gradient Analysis	A/0627/17	Glass	2.5L
<b>10794741</b>	Acetonitrile, HPLC for Gradient Analysis	A/0627/15	Glass	1L
<b>UHPLC gradient grade analysis grade</b>				
<b>11317080</b>	Acetonitrile, for UHPLC gradient grade analysis	A/0650/PB15	Coated glass	1L
<b>11373230</b>	Acetonitrile, for UHPLC gradient grade analysis	A/0650/PB17	Coated glass	2.5L
<b>Optima™ for LC-MS</b>				
<b>10489553</b>	Acetonitrile, Optima™ LC/MS grade	A955-1	Glass	1L
<b>10001334</b>	Acetonitrile, Optima™ LC/MS grade	A955-212	Glass	2.5L
<b>Optima™ for UHPLC-MS</b>				
<b>15329865</b>	Acetonitrile, Optima™ UHPLC/MS	A956-1	Glass	1L



### Ammonia solution, 35%



$NH_3 \cdot H_2O$	UN: 2672
CAS: 1336-21-6	H314, H335, H410
MW: 35.05	P280, P301+P330+P331,
Density at 20°C: 0.88	P303+P361+P353, P304+P340,
ADR/RID: 8, III	P305+P351+P338, P310
EINECS: 215-647-6	

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>10305220</b>	Ammonia solution, 35%, Certified AR for analysis	A/3280/PB15	Coated glass	1L
<b>10111660</b>	Ammonia Solution, 35%, Certified AR for analysis	A/3280/PB17	Coated glass	2.5L



### Ammonium acetate



$NH_4CH_3CO_2$	Flash point: 136°C
CAS: 631-61-8	EINECS: 211-162-9
MW: 77.08	
Melting point: 110 to 112°C	

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>10050030</b>	Ammonium acetate, extra pure, SLR, crystals	A/3400/60	Plastic	1 kg
<b>10478010</b>	Ammonium acetate, Certified AR for analysis	A/3440/60	Plastic	1 kg



For up to date GHS information on Fisher Chemical products listed please refer to the safety data sheet available from [www.eu.fishersci.com](http://www.eu.fishersci.com)

## Ammonium chloride



NH<sub>4</sub>Cl  
 CAS: 12125-02-9  
 MW: 53.49g/mol

Melting point: 340°C/644°F  
 H319, H302  
 P280, P305+P351+P338, P270

Cat. No	Description	MA/PN	Packaging type	Pack qty
10785701	Ammonium chloride, 99+%, extra pure, SLR	A/3880/60	Plastic	1 kg
10070030	Ammonium chloride, Certified AR for analysis	A/3920/60	Plastic	1 kg

## Calcium chloride dihydrate



CaCl<sub>2</sub>·2H<sub>2</sub>O  
 CAS: 10035-04-8  
 MW: 147.02  
 Density at 20°C: 0.83  
 Melting point: 175°C

EINECS: 233-140-8  
 GHS: Eye Irrit. 2  
 H319  
 P280, P305+P351+P338

Cat. No	Description	MA/PN	Packaging type	Pack qty
10325220	Calcium chloride dihydrate, Certified AR for analysis	C/1500/60	Plastic	1 kg

## Buffer pH standard solutions, ready-to-use, NIST



- All standard solutions to NIST
- Ready to use solutions
- Rigorous quality assurance and testing

procedures throughout the production process ensure the lot-to-lot consistency required for reproducible results

Cat. No	Description	MA/PN	Packaging type	Pack qty
10675492	Buffer solution pH4.00 (phthalate), NIST standard solution	J/2820/15	Plastic	1L
10030190	Buffer solution pH4.00 (phthalate), NIST standard solution	J/2820/17	Plastic	2.5L
10151570	Buffer solution pH7.00 (phosphate), NIST Standard Solution	J/2850/15	Plastic	1L
10457640	Buffer solution pH7.00 (phosphate), NIST standard solution	J/2850/17	Plastic	2.5
10429560	Buffer solution pH10.00 (borate), NIST standard solution	J/2880/15	Plastic	1L
10214200	Buffer solution pH10.00 (borate), NIST standard solution	J/2880/17	Plastic	2.5

## Chloroform, stabilised with amylene



CHCl<sub>3</sub>  
 CAS: 67-66-3  
 MW: 119.38  
 Density at 20°C: 1.48  
 Boiling point: 61 to 61°C  
 Melting point: -63°C  
 ADR/RID: 6.1, III

EINECS: 200-663-8  
 UN: 1888  
 GHS: Carc. 2, Acute Tox. 4, Skin Irrit. 2, STOT RE 2 H302, H331, H315, H319, H336, H351 H361d, H372  
 P280, P260, P301+P312, P302+P352, P304+P340, P311, P305+P351+P338

Cat. No	Description	MA/PN	Packaging type	Pack qty
SLR specified reagent for general laboratory work, extra pure				
10784143	Chloroform, 99+%, extra pure, stabilised with amylene, SLR	C/4920/15	Glass	1L
10102190	Chloroform, 99+%, extra pure, stabilised with amylene, SLR	C/4920/17	Glass	2.5L
Certified AR for analysis				
10122190	Chloroform, 99.8+%, Certified AR for analysis, stabilised with amylene	C/4960/15	Glass	1L
10293850	Chloroform, 99.8+%, Certified AR for analysis, stabilised with amylene	C/4960/17	Glass	2.5L
Certified for HPLC				
10050090	Chloroform, for HPLC, stabilised with amylene	C/4966/15	Glass	1L
10615492	Chloroform, for HPLC, stabilised with amylene	C/4966/17	Glass	2.5L

## Buffer pH standard colour-coded solutions, ready-to-use, NIST



- NIST standard colour-coded pH standard solutions
- Manufactured to a tolerance of ± 0.02 pH units at 20°C
- Convenient and ready-to-use

Cat. No	Description	MA/PN	Packaging type	Pack qty
10427260	Buffer colour coded solution pH4.00 (phthalate) red, NIST standard solution	J/2825/15	Plastic	1L
10070170	Buffer colour coded solution pH4.00 (phthalate) red, NIST standard solution	J/2825/17	Plastic	2.5L
10477830	Buffer colour coded solution pH7.00 (phosphate) yellow, NIST standard solution	J/2855/15	Plastic	1L
10274480	Buffer colour coded solution pH7.00 (phosphate) yellow, NIST standard solution	J/2855/17	Plastic	2.5L
10284240	Buffer colour coded solution pH10.00 (borate) blue, NIST standard solution	J/2885/15	Plastic	1L
10723991	Buffer colour coded solution pH10.00 (borate) blue, NIST standard solution	J/2885/17	Plastic	2.5L

## Cyclohexane



C<sub>6</sub>H<sub>12</sub>  
 CAS: 110-82-7  
 MW: 84.16  
 Density at 20°C: 0.77  
 Boiling point: 81°C  
 Melting point: 6.5°C  
 Flash point: -18°C  
 ADR/RID: 3, II

EINECS: 203-806-2  
 UN: 1145  
 GHS: Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1  
 H225, H336, H304, H315, H410  
 P261, P301+P310, P273, P304+P340, P302+P352, P210

Cat. No	Description	MA/PN	Packaging type	Pack qty
SLR specified reagent for general laboratory work, extra pure				
10477440	Cyclohexane, extra pure, SLR	C/8920/17	Glass	2.5L
Certified AR for analysis				
10548800	Cyclohexane, Certified AR for analysis	C/8921/15	Glass	1L
10253470	Cyclohexane, Certified AR for analysis	C/8921/17	Glass	2.5L

## Buffer pH standard solutions, concentrated, NIST



- Each ampoule makes 500mL of standard solution

Cat. No	Description	MA/PN	Packaging type	Pack qty
10732371	Buffer concentrated solution NIST pH7.00 (phosphate)	J/2850C/05	Ampoules	1 Ampoule
10204440	Buffer concentrated solution NIST pH7.00 (phosphate)	J/2850C/90	Ampoules	6 Ampoule
10477830	Buffer concentrated solution NIST pH10.00 (borate)	J/2880C/90	Ampoules	6 Ampoule

For up to date GHS information on Fisher Chemical products listed please refer to the safety data sheet available from [www.eu.fishersci.com](http://www.eu.fishersci.com)

## Dichloromethane



CH<sub>2</sub>Cl<sub>2</sub>  
CAS: 75-09-2  
MW: 84.93  
Density at 20°C: 1.325  
Boiling point: 39 to 40°C  
Melting point: -97°C

ADR/RID: 6.1, III  
EINECS: 200-838-9  
UN: 1593  
H315, H319, H351, H336  
P305+P351+P338, P302+P352, P280, P308+P313

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>SLR specified reagents for general laboratory work, extra pure</b>				
<b>10127611</b>	Dichloromethane, 99+%, extra pure, stabilised with amylene, SLR	D/1850/15	Glass	1L
<b>10458210</b>	Dichloromethane, 99+%, extra pure, stabilised with amylene, SLR	D/1850/17	Glass	2.5L
<b>Certified AR for analysis</b>				
<b>10160292</b>	Dichloromethane, Certified AR for analysis, stabilised with amylene	D/1852/15	Glass	1L
<b>10784941</b>	Dichloromethane, Certified AR for analysis, stabilised with amylene	D/1852/17	Glass	2.5L
<b>Distol™ for residue and pesticide analysis</b>				
<b>10132140</b>	Dichloromethane, Distol™ for residue analysis, stabilised with amylene	D/1853/15	Glass	1L
<b>10500341</b>	Dichloromethane, Distol™ for residue analysis, stabilised with amylene	D/1853/17	Glass	2.5L

## Diethyl ether, stabilised



C<sub>4</sub>H<sub>10</sub>O  
CAS: 60-29-7  
MW: 74.12  
Density at 20°C: 0.714  
Boiling point: 34.6°C  
Melting point: -116°C  
Flash point: -45°C

ADR/RID: 3, I  
EINECS: 200-467-2  
UN: 1155  
GHS: Flam. Liq. 1, Acute Tox. 4, STOT SE 3  
H224, H336, H302, EUH019, EUH066  
P261, P233, P301+P312, P210, P240, P243, P403+P235

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>SLR specified reagents for general laboratory work, extra pure, stabilised with BHT</b>				
<b>10263230</b>	Diethyl ether, extra pure, SLR, stabilised with BHT	D/2400/17	Glass	2.5L
<b>Certified AR, Eur.Ph. for analysis, stabilised with BHT</b>				
<b>10306040</b>	Diethyl ether, Certified AR for analysis, stabilised with BHT	D/2450/15	Glass	1L
<b>10785901</b>	Diethyl ether, Certified AR for analysis, stabilised with BHT	D/2450/17	Glass	2.5L

## Dimethylacetamide



C<sub>4</sub>H<sub>9</sub>NO  
Assay ≥99.9%  
CAS: 127-19-5  
Formula Weight: 87.12  
H360D, H312, H332, H319  
P280, P201, P308+P313, P304+P340, P302+P352, P305+P351+P338

• DMAC Headspace grade is processed to high purity for accurate and repeatable determination of trace levels of residual solvents

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>15582393</b>	DMAC, Dimethylacetamide, GC Headspace grade	D160-1	Glass	1L



## Dimethyl sulfoxide



(CH<sub>3</sub>)<sub>2</sub>SO  
CAS: 67-68-5  
MW: 78.13  
Density at 20°C: 1.1  
Boiling point: 189°C  
Melting point: 18.4°C

Flash point: 87°C  
EINECS: 200-664-3

• DMSO processed to high purity for accurate and repeatable determination of trace levels of residual solvents

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>15572393</b>	DMSO, Dimethyl sulfoxide, GC Headspace grade	D139-1	Glass	1L

## Dimethylformamide



H.CO.N(CH<sub>3</sub>)<sub>2</sub>  
CAS: 68-12-2  
MW: 73.09  
Density at 20°C: 0.945  
Boiling point: 153°C  
Melting point: -61°C  
Flash point: 58°C  
ADR/RID: 3, III  
EINECS: 200-679-5  
UN: 2265

GHS: Repr. 1B, Acute Tox. 4, Eye Irrit. 2  
H319, H312, H332, H360D, H226  
P301+P310, P302+P352, P304+P340, P280, P305+P351+P338, P210

• DMF Headspace grade is processed to high purity for accurate and repeatable determination of trace levels of residual solvents

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>SLR specified reagents for general laboratory work, extra pure</b>				
<b>10757894</b>	Dimethylformamide, extra pure, SLR	D/3840/15	Glass	1L
<b>10745521</b>	Dimethylformamide, extra pure, SLR	D/3840/17	Glass	2.5L
<b>Certified AR for analysis</b>				
<b>10560911</b>	Dimethylformamide, Certified AR for analysis	D/3841/15	Glass	1L
<b>10284140</b>	Dimethylformamide, Certified AR for analysis	D/3841/17	Glass	2.5
<b>GC Headspace grade</b>				
<b>15562393</b>	Dimethylformamide, GC Headspace grade	D133-1	Glass	1L

## 1,4-Dioxane



C<sub>4</sub>H<sub>8</sub>O<sub>2</sub>  
CAS: 123-91-1  
MW: 88.11  
Density at 20°C: 1.034  
Boiling point: 101°C  
Melting point: 12°C  
Flash point: 12°C  
ADR/RID: 3, II

EINECS: 204-661-8  
UN: 1165  
GHS: Flam. Liq. 2, Carc. 2, Eye Irrit. 2, STOT SE 3  
H225, H319, H351, H335, EUH019, EUH066  
P281, P261, P233, P280, P305+P351+P338, P210

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>10478400</b>	1,4-Dioxane, extra pure, SLR, stabilised with BHT	D/4500/PB17	Coated glass	2.5L
<b>10141470</b>	1,4-Dioxane, Certified AR for analysis, stabilised with BHT	D/4550/15	Glass	1L
<b>10080120</b>	1,4-Dioxane, Certified AR for analysis, stabilised with BHT	D/4550/PB17	Coated glass	2.5L



For up to date GHS information on Fisher Chemical products listed please refer to the safety data sheet available from [www.eu.fishersci.com](http://www.eu.fishersci.com)



## Ethanol absolute



C<sub>2</sub>H<sub>5</sub>OH  
 CAS: 64-17-5  
 MW: 46.07g/mol  
 Boiling point: 78°C/172.4°F  
 Melting point: -114°C/-173.2°F

UN: 1170  
 H225, H319  
 P210, P303+P361+P353, P280, P264, P337+P313

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>Certified AR, Eur.Ph., BP for analysis</b>				
12498740	Ethanol absolute 99.8+%, Certified AR for analysis	E/0650DF/08	Glass	500mL
10342652	Ethanol absolute 99.8+%, Certified AR for analysis	E/0650DF/15	Glass	1L
10437341	Ethanol absolute 99.8+%, Certified AR for analysis	E/0650DF/17	Glass	2.5L

## Formic acid



HCOOH  
 CAS: 64-18-6  
 MW: 46.02  
 Density at 20°C: 1220  
 Boiling point: 101°C  
 Melting point: 8°C  
 Flash point: 50°C  
 ADR/RID: 8, 3, II

EINECS: 200-579-1  
 UN: 1779  
 GHS: Flam. Liq. 3, Skin Corr. 1A, Eye Dam. 1  
 H226, H314  
 P280, P260, P301+P330+P331, P305+P351+P338, P302+P352, P210

Cat. No	Description	MA/PN	Packaging type	Pack qty
10785711	Formic acid, 98-100%, Certified AR for analysis	F/1900/PB15	Coated glass	1L
10141570	Formic acid, 98-100%, Certified AR for analysis	F/1900/PB17	Coated glass	2.5L

## Ethyl acetate



C<sub>4</sub>H<sub>8</sub>O<sub>2</sub>  
 CAS: 141-78-6  
 MW: 88.11  
 Density at 20°C: 0.902  
 Boiling point: 75 to 78°C  
 Melting point: -83.5°C  
 Flash point: -4°C

ADR/RID: 3, II  
 EINECS: 205-500-4  
 UN: 1173  
 GHS: Flam. Liq. 2, Eye Irrit. 2, STOT SE 3  
 H225, H319, H336, EUH066  
 P261, P280, P305+P351+P338, P210, P240

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>SLR specified reagents for general laboratory work, extra pure</b>				
10204340	Ethyl acetate, extra pure, SLR	E/0850/15	Glass	1L
10080130	Ethyl acetate, extra pure, SLR	E/0850/17	Glass	2.5L
<b>Certified AR for Analysis</b>				
10697212	Ethyl acetate, Certified AR for analysis	E/0900/15	Glass	1L
10386320	Ethyl acetate, Certified AR for analysis	E/0900/17	Glass	2.5L
<b>Certified for HPLC</b>				
10724181	Ethyl acetate, for HPLC	E/0906/15	Glass	1L
10456870	Ethyl acetate, for HPLC	E/0906/17	Glass	2.5L

## Hydrochloric acid



HCl  
 CAS: 7647-01-0  
 MW: 36.46  
 Density at 20°C: 1.18  
 Boiling point: 57°C  
 Melting point: -35°C  
 ADR/RID: 8, II  
 EINECS: 231-595-7

UN: 1789  
 GHS: Skin Corr. 1B, Eye Dam. 1, STOT SE 3  
 H335, H314  
 P301+P330+P331, P280, P305+P351+P338, P261, P301+P312, P304+P340

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>Certified AR for analysis</b>				
10294190	Hydrochloric Acid, 37%, Certified AR for analysis, d=1.18	H/1200/PB15	Plastic	1L
10316380	Hydrochloric Acid, 37%, Certified AR for analysis, d=1.18	H/1200/PB17	Plastic	2.5L
<b>Optima™ for ultra-trace elemental analysis</b>				
11984081	Hydrochloric acid 32-35%, Optima™, for ultra-trace elemental analysis	A466-500	Plastic	500mL
11954081	Hydrochloric acid 32-35%, Optima™, for ultra-trace elemental analysis	A466-1	Plastic	1L
<b>Trace Metal™ for trace elemental analysis</b>				
11325870	Hydrochloric acid 34-37%, Trace Metal™	A508-P1	Plastic	1L
11355890	Hydrochloric acid 34-37%, Trace Metal™	A508-P212	Plastic	2.5L
<b>Standard volumetric solutions for volumetric analysis</b>				
10467640	Hydrochloric acid solution 1M (1N), NIST standard solution, ready to use	J/4320/15	Plastic	1L
<b>Standard volumetric concentrates for volumetric analysis</b>				
10386040	Hydrochloric acid solution 1M (1N), NIST standard concentrate, each ampoule makes 1L of solution	J/4320C/05	Ampoule	1 Amp
10528050	Hydrochloric acid solution 1M (1N), NIST standard concentrate, each ampoule makes 1L of solution	J/4320C/90	Ampoule	6 Amp

## Ethylenediaminetetraacetic acid, disodium salt, solutions for volumetric analysis



C<sub>10</sub>H<sub>14</sub>N<sub>2</sub>Na<sub>2</sub>O<sub>8</sub>  
 CAS: 139-33-3

• NIST standard solutions and concentrates, for volumetric analysis

Cat. No	Description	MA/PN	Packaging type	Pack qty
10558230	Ethylenediaminetetraacetic acid, disodium salt, solution 0.1M (0.2N) ready to use	J/3700/15	Plastic	1L
10059981	Ethylenediaminetetraacetic acid, disodium salt, concentrated solution 0.01M (0.02N), ampoule, each ampoule makes 1L of solution	J/3720C/05	Ampoule	1 Amp
10497060	Ethylenediaminetetraacetic acid, disodium salt, concentrated solution 0.01M (0.02N), ampoule, each ampoule makes 1L of solution	J/3720C/90	Ampoule	6 Amp

## Isopropanol



C <sub>3</sub> H <sub>7</sub> OH	ADR/RID: 3, II
CAS: 67-63-0	EINECS: 200-661-7
MW: 60.10	UN: 1219
Density at 20°C: 0.785	GHS: Flam. Liq. 2, Eye Irrit. 2, STOT SE 3
Boiling point: 81 to 83°C	H225, H336, H319
Melting point: -89.5°C	P261, P280, P305+P351+P338, P210,
Flash point: 12°C	P240

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>Certified AR for analysis</b>				
<b>10366430</b>	Isopropanol, Certified AR for analysis	P/7500/15	Glass	1L
<b>10315720</b>	Isopropanol, Certified AR for analysis	P/7500/17	Glass	2.5L
<b>Certified for HPLC</b>				
<b>10284250</b>	Isopropanol, for HPLC	P/7507/15	Glass	1L
<b>10674732</b>	Isopropanol, for HPLC	P/7507/17	Glass	2.5L
<b>10561802</b>	Isopropanol, HPLC for gradient analysis	P/7508/17	Glass	2.5L
<b>Optima™ for LC-MS</b>				
<b>10091304</b>	Isopropanol, Optima™ LC/MS Grade	A461-1	Glass	1L
<b>10684355</b>	Isopropanol, Optima™ LC/MS Grade	A461-212	Glass	2.5L

## Karl Fischer Aqualine™ reagents



UN: 1760  
H314, H360D, H372  
P280, P301+P330+P331,  
P303+P361+P353, P305+P351+P338,  
P310

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>10181570</b>	Aqualine™ Complete 5	K/2000/15	Glass	1L
<b>10676262</b>	Aqualine™ Complete 5	K/2000/17	Glass	2.5L
<b>11433813</b>	Aqualine™ Complete 5K	K/2250R/08	Glass	500mL
<b>10092042</b>	Aqualine™ Complete 5K	K/2250R/15	Glass	1L
<b>11443813</b>	Aqualine™ Matrix K	K/2300R/08	Glass	500mL
<b>10205592</b>	Aqualine™ Matrix K	K/2300R/15	Glass	1L
<b>10101580</b>	Aqualine™ Solvent	K/2100/15	Glass	1L
<b>10264390</b>	Aqualine™ Solvent	K/2100/17	Glass	2.5L
<b>10199511</b>	Aqualine™ Solvent CM	K/2110/15	Glass	1L
<b>10510852</b>	Aqualine™ Solvent CM	K/2110/17	Glass	2.5L
<b>10528810</b>	Aqualine™ Titrant 5	K/2200/15	Glass	1L
<b>10172050</b>	Aqualine™ Titrant 5	K/2200/17	Glass	2.5L



## Methanol



CH <sub>3</sub> OH	ADR/RID: 3, 6.1, II
CAS: 67-56-1	EINECS: 200-659-6
MW: 32.04	UN: 1230
Density at 20°C: 0.791	GHS: Flam. Liq. 2, Acute Tox. 3, STOT SE 1
Boiling point: 64.7°C	H225, H301, H311, H331, H370
Melting point: -98°C	P301+P310, P280, P302+P350,
Flash point: 12°C	P304+P340, P210, P240

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>SLR specified reagents for general laboratory work, extra pure</b>				
<b>10626652</b>	Methanol, extra pure, SLR	M/3950/15	Glass	1L
<b>10214490</b>	Methanol, extra pure, SLR	M/3950/17	Glass	2.5L
<b>Certified AR for analysis</b>				
<b>10141720</b>	Methanol, Certified AR for analysis	M/4000/15	Glass	1L
<b>10284580</b>	Methanol, Certified AR for analysis	M/4000/17	Glass	2.5L
<b>Distol™ for residue and pesticide analysis</b>				
<b>10478410</b>	Methanol, for residue analysis, Distol™	M/4053/15	Glass	2.5L
<b>10667032</b>	Methanol, for residue analysis, Distol™	M/4053/17	Glass	1L
<b>Certified for HPLC</b>				
<b>10365710</b>	Methanol, for HPLC	M/4056/15	Glass	1L
<b>10675112</b>	Methanol, for HPLC	M/4056/17	Glass	2.5L
<b>HPLC gradient analysis</b>				
<b>10010280</b>	Methanol, HPLC for gradient analysis	M/4058/15	Glass	1L
<b>10499560</b>	Methanol, HPLC for gradient analysis	M/4058/17	Glass	2.5L
<b>Certified for HPLC-MS</b>				
<b>10532213</b>	Methanol, for HPLC-MS	M/4062/15	Glass	1L
<b>10653963</b>	Methanol, for HPLC-MS	M/4062/17	Glass	2.5L
<b>UHPLC gradient analysis grade</b>				
<b>11357080</b>	Methanol, for UHPLC gradient grade analysis	M/4070/PB15	Coated glass	1L
<b>11313240</b>	Methanol, for UHPLC gradient grade analysis	M/4070/PB17	Coated glass	2.5L
<b>Optima™ for LC-MS</b>				
<b>10031094</b>	Methanol, Optima™ LC-MS	A456-1	Glass	1L
<b>10767665</b>	Methanol, Optima™ LC-MS	A456-212	Glass	2.5L
<b>15319865</b>	Methanol, Optima™ UHPLC-MS	A458-1	Glass	1L

## N-Methyl-2-pyrrolidone



C <sub>5</sub> H <sub>9</sub> NO	P280, P305+P351+P338
CAS: 872-50-4	
Formula Weight: 99.13	
Assay: ≥99.9%	
H319, H315, H335, H360D	
P201, P308+P313, P261, P302+P352,	
	• Headspace grade is processed to high purity for accurate and repeatable determination of trace levels of residual solvents

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>15552413</b>	NMP, N-Methylpyrrolidone, GC Headspace grade	N140-1	Glass	1L



## Nitric acid



HNO<sub>3</sub> EINECS: 231-714-2  
 CAS: 7697-37-2 UN: 2031  
 MW: 63.01 GHS: Ox. Liq. 3, Skin Corr. 1A  
 Density at 20°C: 1.42 H272, H314P301+P330+P331, P280,  
 Boiling point: 122°C P305+P351+P338, P310,  
 Melting point: -42°C P221, P210  
 ADR/RID: 8, 5.1, II

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>Certified AR for analysis</b>				
<b>10634732</b>	Nitric Acid 68% d=1.42, Certified AR for analysis	N/2300/PB15	Plastic	1L
<b>10654732</b>	Nitric Acid 68% d=1.42, OCertified AR for analysis	N/2300/PB17	Plastic	2.5L
<b>Optima™ for ultra-trace elemental analysis</b>				
<b>11984091</b>	Nitric acid 67-69%, Optima™, for ultra trace elemental analysis	A467-500	Plastic	500mL
<b>11964091</b>	Nitric acid 67-69%, Optima™, for ultra trace elemental analysis	A467-1	Plastic	1L
<b>Trace Metal™ for trace elemental analysis</b>				
<b>11395790</b>	Nitric Acid 67-69%, Trace Metal™, for Trace Metal Analysis	A509-P1	Plastic	1L
<b>11395800</b>	Nitric Acid 67-69%, Trace Metal™, for Trace Metal Analysis	A509-P212	Plastic	2.5L

## Potassium carbonate



K<sub>2</sub>CO<sub>3</sub> GHS: Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2,  
 CAS: 584-08-7 STOT SE 3 H302, H335, H315, H319  
 MW: 138.21 P280, P261, P305+P351+P338,  
 Melting point: 891°C P301+P312, P302+P352, P304+P341  
 EINECS: 209-529-3

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>10497260</b>	Potassium carbonate anhydrous, Certified AR for analysis	P/4120/60	Plastic	1 kg

## Potassium chloride



KCl  
 CAS: 7447-40-7  
 MW: 74.56  
 EINECS: 231-211-8  
 Boiling point: 1420°C/2588°F  
 Melting point: 770°C/1418°F

Cat. No	Description	MA/PN	Packaging	Pack qty
<b>10010310</b>	Potassium chloride, extra pure, SLR	P/4240/60	Plastic	1 kg
<b>10684732</b>	Potassium chloride, Certified AR for analysis	P/4280/60	Plastic	1 kg

## Potassium dihydrogen orthophosphate



KH<sub>2</sub>PO<sub>4</sub> Melting point: 253°C  
 CAS: 7778-77-0 EINECS: 231-913-4  
 MW: 136.09

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>10793611</b>	Potassium dihydrogen orthophosphate Certified AR for analysis	P/4800/60	Plastic	1 kg

## Potassium hydroxide



KOH UN: 1813  
 CAS: 1310-58-3 GHS: Acute Tox. 4, Skin Corr. 1A, Eye  
 MW: 56.11 Dam. 1  
 Boiling point: 1320°C H290, H302, H314  
 Melting point: 360°C P280, P301+P330+P331,  
 ADR/RID: 8, II P303+P361+P353, P310  
 EINECS: 215-181-3

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>10448990</b>	Potassium hydroxide pellets, Certified AR for analysis	P/5640/60	Plastic	1 kg
<b>10142010</b>	Potassium hydroxide pellets, Certified AR for analysis	P/5640/65	Plastic	5 kg
<b>10617032</b>	Potassium hydroxide solution 1M (1N), NIST standard solution, ready to use	J/6630/PB15	Plastic	1L
<b>10736292</b>	Potassium hydroxide solution 1M (1N), NIST standard concentrate, each ampoule makes 1L of solution	J/6630C/05	Ampoule	1 Amp
<b>10346140</b>	Potassium hydroxide solution 1M (1N), NIST standard concentrate, each ampoule makes 1L of solution	J/6630C/90	Ampoule	6 Amp

## Potassium iodide



KI  
 CAS: 7681-11-0  
 MW: 166.01  
 Boiling point: 1330°C  
 Melting point: 680°C  
 EINECS: 231-659-4

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>10386380</b>	Potassium iodide, Certified AR for analysis	P/5880/60	Plastic	1 kg

## Potassium nitrate



KNO<sub>3</sub> Boiling Point: 400°C  
 CAS: 7757-79-1 UN: 1486  
 Formula Weight: 101.1g/mol H272  
 Melting Point: 334°C P210

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>10734001</b>	Potassium nitrate, Certified AR for analysis	P/6120/60	Plastic	1 kg

## Silver nitrate, solutions



AgNO<sub>3</sub>  
CAS: 7761-88-8  
UN: 3264

H314, H410, H290  
P301+P330+P331, P280,  
P305+P351+P338, P310, P273,  
P303+P361+P353

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>10745911</b>	Silver nitrate solution 0.1M (0.1N), NIST standard concentrate, each ampoule makes 1L of solution	J/7330C/05	Ampoule	1 Amp
<b>10366330</b>	Silver nitrate solution 0.1M (0.1N), NIST standard concentrate, each ampoule makes 1L of solution	J/7330C/90	Ampoule	6 Amp
<b>10060220</b>	Silver nitrate solution 0.1M (0.1N), NIST standard, ready to use	J/7330/15	Plastic	1L

## Sodium acetate



C<sub>2</sub>H<sub>3</sub>NaO<sub>2</sub>·3H<sub>2</sub>O  
CAS: 6131-90-4  
Formula Weight:

136.08gmol  
Melting Point: 58°C  
EINECS: 204-814-9

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>10794571</b>	Sodium acetate trihydrate, Certified AR for analysis	S/2040/60	Plastic	1 kg

## Sodium chloride



NaCl  
AS: 7647-14-5  
MW: 58.44  
Density at 20°C: 2165

Boiling point: 1461°C  
Melting point: 801°C  
EINECS: 231-598-3

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>SLR specified reagent for general laboratory work, extra pure</b>				
<b>10112640</b>	Sodium chloride, extra pure SLR	S/3120/60	Plastic	1 kg
<b>Certified AR for analysis</b>				
<b>10428420</b>	Sodium chloride, Certified AR for Analysis	S/3160/60	Plastic	1 kg

## Sodium hydrogen carbonate



NaHCO<sub>3</sub>  
CAS: 144-55-8  
MW: 84.01

Melting point: 270°C  
EINECS: 205-633-8

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>Certified AR, Eur. Ph. for analysis</b>				
<b>10152780</b>	Sodium hydrogen carbonate, Certified AR for analysis	S/4240/60	Plastic	1 kg

## Sodium hydroxide



NaOH  
CAS: 1310-73-2  
MW: 40.00  
Boiling point: 1390°C  
Melting point: 318°C  
ADR/RID: 8, II

EINECS: 215-185-5  
UN: 1823  
GHS: Skin Corr. 1A, Eye Dam. 1  
H314  
P280, P301+P330+P331,  
P305+P351+P338, P302+P352

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>10675692</b>	Sodium hydroxide, Certified AR for analysis, pellets	S/4920/60	Plastic	1 kg
<b>10538260</b>	Sodium hydroxide, Certified AR for analysis, pellets	S/4920/65	Plastic	5 kg
<b>10326140</b>	Sodium hydroxide 1M (1N), NIST standard concentrate, each ampoule makes 1L of solution	J/7620C/05	Ampoule	1 Amp
<b>10696642</b>	Sodium hydroxide 1M (1N), NIST standard concentrate, each ampoule makes 1L of solution	J/7620C/90	Ampoule	6 Amp
<b>10528240</b>	Sodium hydroxide 1M (1N), NIST standard solution ready to use	J/7620/15	Ampoule	1L

## Sodium sulfate anhydrous



Na<sub>2</sub>SO<sub>4</sub>  
CAS: 7757-82-6  
MW: 142.04  
Density at 20°C: 2,68

Boiling point: 1700°C  
Melting point: 884 to 888°C  
EINECS: 231-820-9

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>10224640</b>	Sodium sulfate anhydrous, 99+%, SLR specified reagent extra pure	S/6600/60	Plastic	1 kg
<b>10746292</b>	Sodium sulfate anhydrous, Certified AR for analysis, fine powder	S/6650/60	Plastic	1 kg
<b>10192730</b>	Sodium sulfate anhydrous, Certified AR for analysis, granular	S/6640/60	Plastic	1 kg

## Sodium thiosulfate solutions



- Ready-to-use and concentrated solution to NIST for volumetric analysis

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>10558240</b>	Sodium thiosulfate solution 0.1M (0.1N), NIST concentrate, one ampoule makes 1L of solution	J/7950C/05	Ampoule	1 Amp
<b>10677412</b>	Sodium thiosulfate solution 0.1M (0.1N), NIST concentrate, one ampoule makes 1L of solution	J/7950C/90	Ampoule	6 Amp
<b>10429180</b>	Sodium thiosulfate solution 0.1M (0.1N), NIST standard, ready to use	J/7950/15	Plastic	1L

## Sulfuric acid



H<sub>2</sub>SO<sub>4</sub>  
 CAS: 7664-93-9  
 MW: 98.07  
 Density at 20°C: 1.84  
 Boiling point: 290°C  
 Melting point: 10°C  
 ADR/RID: 8, II

EINECS: 231-639-5  
 UN: 1830  
 GHS: Skin Corr. 1A, Eye Dam. 1  
 H314  
 P301+P330+P331,  
 P305+P351+P338, P280

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>Sulfuric acid, Certified AR, for analysis</b>				
<b>10294300</b>	Sulfuric acid min 95% d=1.83, Certified AR for analysis	S/9240/PB15	Plastic	1L
<b>10325960</b>	Sulfuric acid min 95% d=1.83, Certified AR for analysis	S/9240/PB17	Plastic	2.5L
<b>Sulfuric acid, Optima™ for ultra-trace elemental analysis</b>				
<b>11944091</b>	Sulfuric acid Optima™ 93-98%	A468-500	Plastic	500mL
<b>11924091</b>	Sulfuric acid Optima™ 93-98%	A468-1	Plastic	1L
<b>Sulfuric acid, Trace Metal™ for trace elemental analysis</b>				
<b>11315830</b>	Sulfuric acid Trace Metal™ 93-98%	A510-P1	Plastic	1L
<b>11345830</b>	Sulfuric acid Trace Metal™ 93-98%	A510-P212	Plastic	2.5L
<b>Sulfuric acid, standard volumetric solutions</b>				
<b>10191570</b>	Sulfuric acid solution 0.5M (1N), NIST standard concentrate, 1 ampoule makes 1L of solution	J/8430C/05	Ampoule	1 Amp
<b>10428030</b>	Sulfuric acid solution 0.5M (1N), NIST standard concentrate, 1 ampoule makes 1L of solution	J/8430C/90	Ampoule	6 Amp
<b>10734761</b>	Sulfuric acid solution 0.5M (1N), NIST standard solution, ready to use	J/8430/15	Plastic	1L

## Water



H<sub>2</sub>O  
 CAS: 7732-18-5  
 MW: 18.02  
 Boiling point: 100°C  
 EINECS: 231-791-2

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>GC Headspace grade</b>				
<b>15552233</b>	Water, GC Headspace grade	W10-1	Glass	1L
<b>HPLC for gradient analysis</b>				
<b>10449380</b>	Water, HPLC for gradient analysis	W/0106/17	Glass	2.5L
<b>10367171</b>	Water, HPLC for gradient analysis	W/0106/15	Glass	1L
<b>Certified for HPLC-MS</b>				
<b>10434902</b>	Water, for HPLC-MS	W/0112/15	Glass	1L
<b>10777404</b>	Water, for HPLC-MS	W/0112/17	Glass	2.5L
<b>For UHPLC gradient grade analysis</b>				
<b>11307090</b>	Water, for UHPLC gradient grade analysis	W/0120/PB15	Coated glass	1L
<b>11357090</b>	Water, for UHPLC gradient grade analysis	W/0120/PB17	Coated glass	2.5L
<b>Optima™ for LC-MS</b>				
<b>10728098</b>	Water, Optima™ LC/MS grade	W6-1	Glass	1L
<b>10505904</b>	Water, Optima™ LC/MS grade	W6-212	Glass	2.5L
<b>Optima™ for UHPLC-MS</b>				
<b>15339865</b>	Water, Optima™ for UHPLC/MS	W8-1	Glass	1L
<b>Optima™ for ultra-trace metal elemental analysis</b>				
<b>11934391</b>	Water, Optima™ for ultra-trace metal elemental analysis	W9-500	Plastic	500mL
<b>11924391</b>	Water, Optima™ for ultra-trace metal elemental analysis	W9-1	Plastic	1L

## Tetrahydrofuran



C<sub>4</sub>H<sub>8</sub>O  
 CAS: 109-99-9  
 MW: 72.11  
 Density at 20°C: 0.88  
 Boiling point: 66°C  
 Melting point: -108.4°C  
 Flash point: -21°C

ADR/RID: 3, II  
 EINECS: 203-726-8  
 UN: 2056  
 GHS: Flam. Liq. 2, Eye Irrit. 2, STOT SE 3  
 H335, H319, H225, EUH019, H351  
 P310, P280, P261, P305+P351+P338,  
 P302+P352, P210

Cat. No	Description	MA/PN	Packaging type	Pack qty
<b>Certified AR for analysis</b>				
<b>10162350</b>	Tetrahydrofuran, Certified AR for analysis, stabilised with 0.025% BHT	T/0701/15	Glass	1L
<b>10559770</b>	Tetrahydrofuran, Certified AR for analysis, stabilised with 0.025% BHT	T/0701/17	Glass	2.5L
<b>For HPLC, unstabilised</b>				
<b>10264350</b>	Tetrahydrofuran, for HPLC, unstabilised	T/0706/PB15	Coated glass	1L
<b>10578070</b>	Tetrahydrofuran, for HPLC, unstabilised	T/0706/PB17	Coated glass	2.5L

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## TECHNICAL RESOURCES

Here to give you a helping hand!

This section lists some of the most frequently asked questions about our Fisherbrand products.

If you are unable to find the answer to your question, are stuck and need help or are simply confused and unsure of which product best suits your research needs, contact your local Fisher Scientific representative.



## Frequently Asked Questions (FAQ's): Chromatography vials and closures

Q. What type of glass are your chromatography vials made from?

A. Almost all Fisherbrand vials are made out of 1st hydrolytic class glass. Hydrolytic class glass is very hard and has a low expansion coefficient even at high temperature variations. It shows an excellent chemical resistance to acidic and neutral solutions, and even to alkaline solutions due to its relatively low alkali content.

Q. How clean are your vials and closures?

A. All Fisherbrand vials that carry a CleanPack label on the front side of the polypropylene box have been packed in a certified cleanroom after having passed the annealing oven at approx. 600°C. The CleanPack label on the box is a guarantee of clean, uncontaminated vials for a correct analysis. Additionally, tamper-proof evidence is given by the shrink-wrapping of the bottom part of the polypropylene box, plus its cover enables recloseability at any time during consumption in order to avoid any later contamination of the vials during usage.

Q. Why are glass vials available silanised?

A. Silanised vials are used to reduce the adsorption of polar compounds onto the normally polar surface of the glass container. Some compounds like amino-acids, proteins or phenols tend to react with the OH-groups of the glass, even if, as is common for chromatography, 1st hydrolytic class glass is used. Through the silanisation process the glass surface is deactivated and so possible reactions between the polar compounds and the glass are eliminated.

Q. Which septa should I choose for my temperature range?

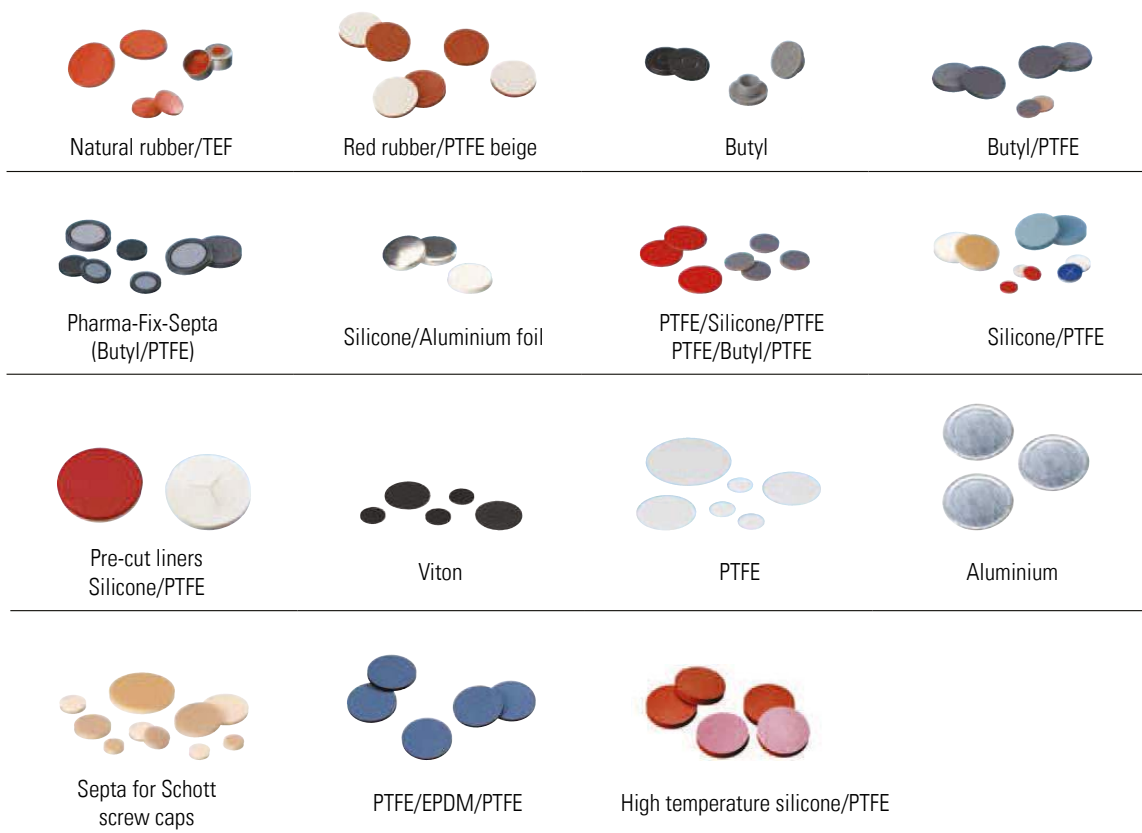
A. The right choice of septa depends on the application. Almost all septa are laminated on one side with PTFE, which has a high chemical resistance and forms an inert barrier between sample and carrier material of the septa. The carrier materials have different physical and chemical properties, such as temperature resistance, resealability properties, cleanliness, hardness, thickness, etc.

## Q. What septa should I use?

A. The right choice of bottle or vial septa depends on the application. Almost all septa are laminated on one side with PTFE, which has a high chemical resistance and forms an inert barrier between sample and underlying carrier material. The carrier materials have different physical and chemical properties, such as temperature resistance, resealability properties, cleanliness, hardness, thickness, etc. The guide overleaf will help you to identify the best septa for your particular application.

Multiple injection?	Specific temperature requirements?			Thin, fragile needle?	Blunt, thick needle?	Critical analysis?	Low coring?
↓		↓	↓	↓	↓	↓	↓
good resealability properties necessary	-40°C up to 120°C	-40°C up to 110°C	-60°C up to 200°C	soft and thin septa required	Slitted/pre-cut liner as penetration aid (HPLC)	very clean liner required	Both sided PTFE laminated liners required
↓	↓	↓	↓	↓	↓	↓	↓
<b>Natural Rubber/TEF</b>	<b>Natural Rubber/TEF; Butyl/PTFE</b>	<b>RedRubber/PTFE</b>	<b>Silicone/PTFE</b>	<b>e.g. Silicone/PTFE</b>	<b>e.g. 11841653</b>	<b>UltraClean Silicone/PTFE septa</b>	<b>PTFE/Silicone/PTFE PTFE/Butyl/PTFE</b>

In order to help you visualise the most common septum material combinations on the market, please see the images below. Please note, however, that their colours do not necessarily provide an indication of the actual liner material itself.



## Q. Why is seal hardness important?

A. The hardness testing of plastics is most commonly measured by the Shore (Durometer) test. This method measures the resistance of plastics toward indentation and provides an empirical hardness value. Shore hardness is measured using either the Shore 'A' or 'D' scales. It is the preferred method for rubbers/elastomers and is also commonly used for 'softer' plastics such as polyolefins, fluoropolymers and vinyl. The Shore A scale is used for 'softer' rubbers while the 'D' scale is used for 'harder' ones. Most septa hardness values are covered by Shore A, although exceptions are some PTFE and PE hardnesses measured using Shore D. The results obtained from this test are a useful measure of relative resistance to piercing of various grades of polymers. This gives guidance on the type of needle that will penetrate the seal and whether thinner gauge needles may be used.

## Q. What are the different certifications available? Are these really beneficial?

A. Certifications become more and more important in order to make processes more reproducible and avoid possible sources of errors right from the beginning. Highest quality, consistency and quality control have always been very important and are highlighted in three certifications, 'Specification Certified', 'HPLC and GC Certified Kits' and 'LC/MS and GC/MS Certified Kits'. For further information please refer to our 'Focus on Chromatography' brochure.

## Q. What is the difference between the types of closures? Is there an impact on evaporation rate?

A. At the moment the market offers, in general, three different closures systems for sealing an autosampler vial:

- Crimp cap in 8, 11, 13, 20mm diameter
- Screw cap; 8-425, 9mm short screw, 10-425, 13-425, 15-425, 18mm, 24-400, 24-414
- Snap cap: 8mm, 11mm, 13mm

From the evaporation rate point of view, a crimp cap provides the tightest seal, followed by the screw cap and then the snap caps. However, from the handling point of view, screw and snap caps are more convenient, as no crimper and de-crimper has to be used.

If convenience of handling is desired, together with high sample integrity and reproducibility of a crimped vial, then the screw thread vial with a stop ring is the best alternative. This screw thread vial not only offers the lowest evaporation rate, it also removes cap tilt and guarantees less autosampler interruptions due to mishandled vials.

Magnetic vial transport systems of state of the art autosampler require magnetisable closures. This type is available for crimp and screw thread closures.

## Q. Is there a specific risk in reusing or using re-washed vials and closures?

A. Re-use or washing of vials is definitely a risk for your sample integrity, as the surface of the vial changes during the cleaning process (grade of adsorption of critical compounds increases) and the complete removal of the former analytes cannot be guaranteed 100%, so cross-contamination and/or ghost peaks can be the consequence. Chromatographers requiring uncompromising sample integrity would be best advised to always use new vials and septa for each analysis.

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## Frequently Asked Questions (FAQ's): Chromatography solvents and reagents

Q. Why are Optima™ UHPLC-MS solvents packed in borosilicate glass bottles?

A. Borosilicate glass reduces the potential for metal adduct contamination, ensuring reliable chromatograms even after the product has been in use for a period of time.

Q. Why do I need to run my LC-MS analysis with Optima™ LC-MS grade?

A. Optima™ LC-MS products (solvents, blends, additives and reagents) have been specifically developed to allow the most sensitive of instruments to operate to the peak of their performance. Smooth baselines and background are assured through an LC gradient test with PDA detector. Testing also ensures neither positive nor negative ion impurities are present. As the presence of metal anions and analytes complicate the spectra, our manufacturing process has been developed to ensure that impurities are minimal. For more routine analytical applications a 'standard' LC-MS grade product is offered.

Q. From amongst the many different grades that are available from Fisher Chemical, how can I choose the most suitable grade for my own chromatography application?

A. Diverse customer requirements have led us to look for ways to improve our purification processes and to develop a series of solvents and buffers that meet the needs of specific instrumentation. Fisher Chemical solvent grades are developed and tested to optimise chromatography performance through choice of grade to suit both instrument and detector type.

Chromatography Application	Instrument and Detector Type	Fisher Chemical Solvent Grade
UHPLC-MS	UHPLC coupled with mass detector	Optima UHPLC-MS
High HPLC-MS	LC and UHPLC coupled with mass detector	Optima LC/MS
HPLC-MS	LC coupled with mass detector	LC-MS Grade
UHPLC	UHPLC coupled with UV detector	UHPLC Gradient Grade
High HPLC gradient analysis	LC gradient coupled with UV detector	HPLC Advanced Gradient Grade
HPLC gradient analysis	LC gradient coupled with UV detector	HPLC Gradient Grade
HPLC (isocratic)	LC coupled with UV detector	HPLC Grade

Additionally, to support other specialty chromatography techniques, our range of specialty solvents are all specified and tested as appropriate for the following applications:

- Advanced Gradient Grade featuring a very low baseline drift for method development
- HPLC grade for electrochemical detection
- HPLC grade for fluorescence detection
- GPC (Gel Permeation Chromatography) grade

Q. Why is Optima LC-MS grade formic acid packed in HDPE bottles?

A. Fisher Scientific Cat. No. 10596814 is packed in HDPE bottles for purposes of safety. Use of an HDPE bottle avoids the dangers of pressure build-up from carbon monoxide which is a natural decomposition product of formic acid. Customers should not be concerned about possible contamination by plasticisers because a proprietary surface treatment is applied to the HDPE bottle to create a barrier between the bottle surfaces and formic acid thus preventing contamination. It is good laboratory practice to store this product at 4°C to slow down this natural decomposition process.

Optima™ LC-MS grade formic acid is also available packaged in 0.5mL, 1mL and 2mL glass (borosilicate) ampoules, Fisher Scientific Cat. Nos. 10780320, 10473038 and 10063427 respectively. Note – the ampoules are pre-scored for easy opening.

Q. I notice the label on my formic acid and TFA bottles says store at 4°C. Will leaving the product out on the lab bench for a few days cause a problem?

A. No, temporary storage under ambient conditions will not impact the reagent. However, for long term storage, we again recommend that the product is held in cool conditions at 4°C in order to maintain product integrity longer.

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## Frequently Asked Questions (FAQ's): Electrochemistry - pH

Q. I am looking to test samples containing Tris buffers, which electrode shall I use?

A. A number of electrodes could be suitable, but what's important is that it is a 'double junction' electrode. For further information please refer to our 'Focus on pH and Electrochemistry' brochure.

Q. My electrodes are failing within a short time frame, what could be the issue?

A. Not all electrodes are suitable for all sample types. For further information please refer to our 'Focus on pH and Electrochemistry' brochure.

Q. I've heard of some samples I should be wary of using standard electrodes in, what are they?

A. Standard electrodes use silver ions in their reference system. Proteins, Tris buffers and general biological samples all react with silver ions and this reaction can lead to the electrode having a shorter life span.

Q. I am having trouble calibrating my meter, what could I be doing wrong?

A. Fresh buffer solutions (preferably certified to a known standard) should always be used. The age of an electrode should also be considered. Electrodes have a useful lifetime of approximately 6 months to a year, and should be treated as a consumable.

Q. Which pH buffers should I use to calibrate my electrode?

A. To ensure accurate and reliable readings, we always recommend calibrating in three pH buffers, normally pH 4, 7 and 10. However, depending on the accuracy you actually require, this can be done at as few as two pH points (e.g. 4 and 7 or 7 and 10) or as many as five points on the Fisherbrand 'accumet' meters. Important points to remember when choosing pH buffers are to make sure that they encompass the typical pH range that you expect your samples to fall within, and to never calibrate at points more than 3 pH units apart (calibrating at 4 and 10 for example will not give good results). Always calibrate at pH7 regardless.

Q. How regularly should I calibrate?

A. The meter should be calibrated regularly using fresh buffers. If used on a daily/weekly basis, then this should be before each use. If the meter is in constant use throughout each day, then it may better calibrating midway through each day as part of a calibration routine.

Q. Will the temperature of my sample be an issue?

A: The pH value of any sample varies with temperature, so for accurate readings it is always best to measure the temperature too. If you are measuring at a different temperature to which you calibrate at, it may be worth considering an 'ATC' (automatic temperature compensation) probe, or an electrode with one built in to measure this. Modern pH meters will adjust the slope value of the electrode as the temperature changes, ensuring the readings stay accurate.

pH values of buffers at various temperatures	0°C	5°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C	80°C	90°C
<b>1.68</b>	1.67	1.67	1.67	1.67	1.68	1.69	1.71	1.72	1.74	1.77	1.79
<b>4.01</b>	4.00	4.00	4.00	4.00	4.02	4.04	4.06	4.09	4.13	4.16	4.21
<b>6.86</b>	6.98	6.95	6.92	6.87	6.85	6.84	6.83	6.84	6.85	6.86	6.88
<b>7.00</b>	7.11	7.08	7.06	7.01	6.98	6.97	6.97	6.97	6.99	7.03	7.08
<b>9.18</b>	9.46	9.40	9.33	9.23	9.14	9.07	9.01	8.96	8.92	8.89	8.85
<b>10.01</b>	10.32	10.25	10.18	10.06	9.97	9.89	9.83	9.79	9.78	9.78	9.80
<b>12.46</b>	12.79	12.73	12.67	12.52	12.36	12.17	11.96	11.73	11.47	11.19	10.89



Q. Can I mix and match meters and electrodes from different manufacturers?

A. This is generally not a problem. The vast majority of manufacturers nowadays use a 'BNC' connection between the electrode and the meter for standard pH electrodes. This can however cause an issue when using an ATC probe, as these connectors are not standardised and are manufacturer specific.

Q. How regularly should I clean my electrode?

A. As regularly as possible. Cleaning and maintaining it will help prolong the electrode's life. It is worth noting that you must be careful not to leave an electrode soaking in aggressive cleaning solutions once clean. This could end up damaging the electrode.

Key points to remember:

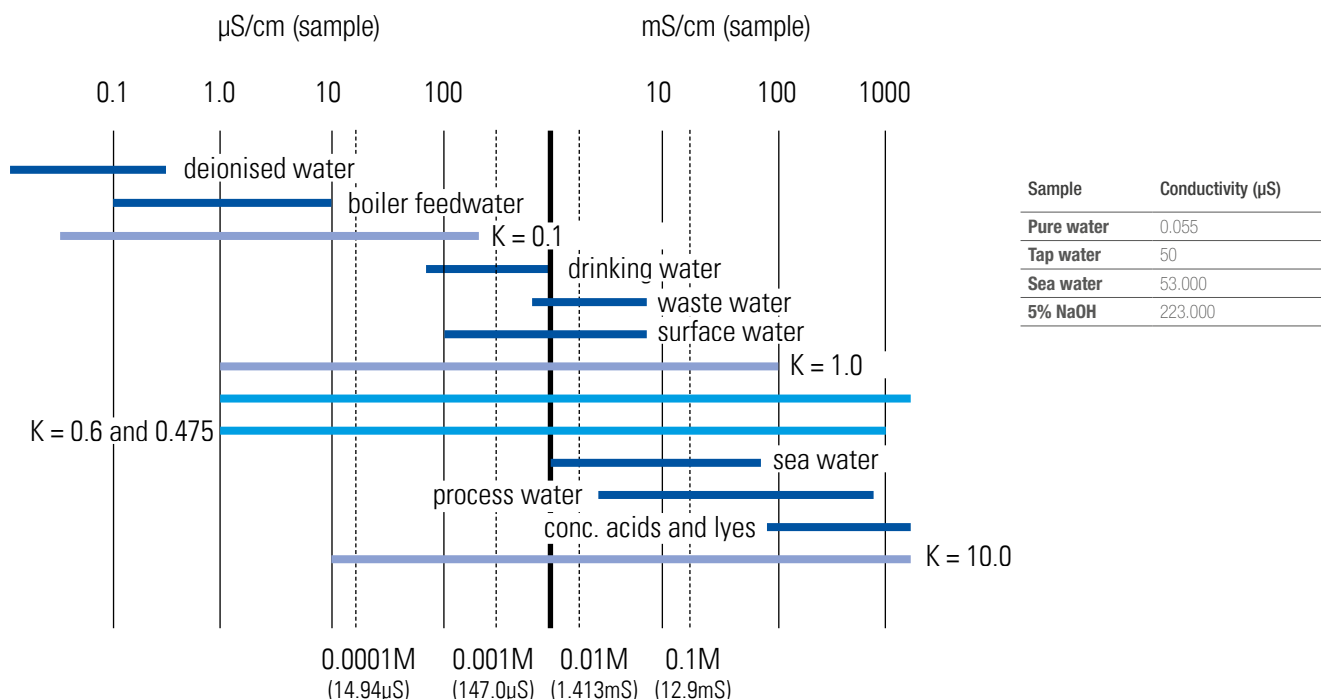
- Never re-use buffers
- Never polish the bulb
- Never store the electrode dry or in de-ionised water
- Never stir the sample or buffers with the electrode
- Never cover the reference fill hole during measurement
- Regularly change the reference fill solution

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## Frequently Asked Questions (FAQ's): Electrochemistry - Conductivity

Q. I am looking to measure pure water samples. Is this possible?

A. This is possible. What's important is the conductivity cell constant (also known as the 'K' value). A cell constant of 0.1 would be needed for pure water samples. Each cell constant has a limited sensing range so please make sure you choose one whose range encompasses that of your expected sample conductivity. See below for examples of sample types, approximate conductivity values, and suitable cell constants:



Q. Can I mix and match meters and conductivity cells from different manufacturers?

A. There is currently no standard connection for meters and conductivity cells and all manufacturers use a different system. It is therefore recommended that you stick to conductivity cells from the same manufacturer as your meter.

Q. Will temperature affect my conductivity measurement?

A. Temperature can have a substantial effect on conductivity. Raising the temperature obviously affects the chemical properties of aqueous solutions. This in turn contributes to the solution's conductivity. Typically, conductivity varies by 1 to 3% per celcius degree

Q. How should I store my conductivity cell?

A. Conductivity cells require minimal storage compared to other electrode types. They can be stored in deionised water in between measurements. For overnight storage, they can be simply rinsed in deionised water and then stored dry.

Q. When should I calibrate my conductivity meter?

A. This should be done on a regular basis, before each use if possible (possibly as part of a daily calibration routine).

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## Frequently Asked Questions (FAQ's): Horizontal Gel Electrophoresis

Q. Which buffer should I use for my agarose gel electrophoresis?

A. The type of buffer used to run DNA in agarose gel electrophoresis depends primarily on the size of DNA fragment and the post-electrophoresis application. Two buffers commonly used for DNA agarose electrophoresis are Tris-acetate with EDTA (TAE; 40mM Tris-acetate, 1mM EDTA) and Tris-borate with EDTA (TBE, 89mM Tris-borate, 2mM EDTA). Because the pH of these buffers is neutral, the phosphate backbone of DNA has a net negative charge and migrates toward the anode.

TAE and TBE have different properties which makes one more suitable than the other for specific purposes. For larger DNA fragments (>10kb) TAE is preferred. For smaller DNA fragments (<1kb) TBE is generally preferred as it has a greater buffering capacity and will give sharper resolution than TAE. TAE is also the preferred choice of buffer when the DNA sample is to be used in cloning experiments, because the borate in the TBE buffer is a strong inhibitor for many enzymes.

Q. How thick should I cast my agarose gel?

A. The recommended thickness for agarose gel is 3 to 4mm. Gels thicker than 5mm will result in fuzzy bands.

Q. I wish to run a gel to separate DNA fragments from 100 to 2000bp. Which agarose do you suggest?

A. Fisher BioReagents Cat. No 10766834 agarose, molecular biology grade, is well suited for routine separation of DNA and RNA in the range 500bp to 23kb. For separation of fragments in the 100 to 2000bp range, we would suggest Fisher BioReagents Cat. No 10766834, increasing the gel concentration (>2%) and using TBE buffer (not TAE).

Q. Which is the best agarose for comet electrophoresis?

A. The comet assay (single cell gel electrophoresis) is a simple method used for measuring DNA strand breaks in eukaryotic cells. A low melting point agarose is usually required. We would suggest Fisher BioReagents Cat. No 10377033 as this is a low melting, molecular biology grade agarose which is ideal for separating and recovering nucleic acids.

Q. How much DNA do I need to load on to a gel?

A. You should load no more than 100ng of DNA. This amount should give you a clear well-defined band when stained with ethidium bromide and viewed under a UV light. If you load too much DNA then you will see a smear.

Q. Is the dye proprietary in Cat. No 10205023?

A. The loading dyes in Fisher BioReagents Cat. No 10205023, agarose gel-loading dye, 6X are a unique blend of three tracking dyes that make estimating sample migration simple and reliable:

- Dye #1 – a light blue dye that migrates at about 4000 base pairs in 1% agarose
- Dye #2 – an indigo dye that migrates at about 600 base pairs in 1% agarose
- Dye #3 – a magenta dye that migrates at about 10 base pairs in 1% agarose

Q. At what voltage should I run my agarose gel?

A. The recommended voltage is 4 to 10 volts/cm (cm is determined by measuring the interelectrode distance, i.e the distance between anode and cathode, not the length of the gel) under normal electrophoretic conditions. If the voltage is too low, the mobility of small DNA (<1000bp) is reduced and band broadening will occur due to diffusion. If the voltage is too high, the band resolution is reduced, mainly because of gel overheating.

Q. Should I recirculate the buffer during electrophoresis?

A. Recirculation prevents the formation of pH gradient and buffer depletion, so it is advisable to recirculate the buffer especially during extended electrophoresis. Buffer recirculation is also important when running larger TAE gels due to the lower buffering capacity of TAE.

Q. How should I dispose of ethidium bromide gel stain?

A. Ethidium bromide destaining bags are available, Fisher BioReagents Cat. No 12861680. These bags will remove up to 5mg ethidium bromide when stirred with solution overnight. However, as disposal regulations vary, please contact your local safety officer for disposal guidelines.

Q. Do you have any information regarding the amount of DNA plasmid for each band for Cat. No 10284633?

A. We do not have information regarding the amount of DNA in each discrete fragment (band) of Fisher BioReagent Cat. No 10284633, low scale (100bp) DNA ladder. This DNA ladder is meant to be a general purpose sizing standard for DNA fragments such as PCR\* amplicons separated on agarose mini gel. It is not meant to be used as a quantitative standard. However, for quantitation, we have the exACTGene DNA ladders such as Fisher BioReagents Cat. No 10021463; this low range plus DNA ladder provides the approximate amount of DNA in each band.

\*Polymerase Chain Reaction (PCR) is a process covered by patents owned by Hoffmann-La-Roche

## References

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2. Rickwood, D. and Hames, B. D. (eds.) (1982) Gel Electrophoresis of Nucleic Acids: A Practical Approach, IRL Press, Oxford, England
3. Longo, M. C. and Hartley, J. L. (1986) Focus 8:3, 3
4. Ausubel, et al., (eds). (1993) Current Protocols in Molecular Biology. Greene Publishing and Wiley-Interscience, New York

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## Frequently Asked Questions (FAQ's): Vertical Gel Electrophoresis

### Q. What percentage acrylamide gel should I use?

A. Care should be taken when selecting the percentage acrylamide or pore size of the gel to be used. The table below details which percentage of gel to use to separate the sizes of proteins indicated.

Acrylamide percentage	Separating resolution
5%	60 to 220kDa
7.5%	30 to 120kDa
10%	20 to 75kDa
12%	17 to 65kDa
15%	15 to 45kDa
17.5%	12 to 30kDa

### Q. Does the protein gel loading dye (Cat. No 10376363) contain any reducing agents such as $\beta$ -mercaptoethanol or DTT?

A. For protein gel electrophoresis, typical sample loading buffers are available in either a reducing or non-reducing formulation. Dithiothreitol (DTT) is a common reducing agent used in protein sample buffers. The formulation of Fisher BioReagents Cat. No 10376363, protein gel loading dye (2X), does not contain a reducing agent such as DTT.

### Q. Is it possible to autoclave Cat. No 10204733?

A. It is not advisable to autoclave Fisher BioReagent Cat. No 10204733, 10X PBS, as phosphate may precipitate out. For this product, we filter the buffer solution through a 0.2micron filter into a sterile 1L poly bottle under a sterile hood.

### Q. Why is the actual band size on a Western blot different from the predicted size of the protein?

A. Western blotting is based on the separation of proteins by their size on a gel. However, migration of proteins through the gel matrix is also affected by other factors, which may cause the observed band size to be different from the predicted size.

Common causes are:

- Post-translational modification; for example phosphorylation and glycosylation increase the size of the protein
- Post-translation cleavage; many proteins are synthesised as precursor proteins, and then cleaved to give the active form
- Multimers, for example dimerisation of a protein. This is usually prevented under reducing conditions, although strong interactions can result in the appearance of higher bands
- Splice variants; alternative splicing may result in different sized proteins being produced from the same gene
- Relative charge; the composition of amino acids (charged versus non-charged)

### Q. What is the best method for staining SDS-PAGE gels?

A. Coomassie staining is probably one of the most well known protein staining techniques. Two main Coomassie staining methods exist, 'classical' Coomassie and the more recently developed colloidal Coomassie.

- Classical Coomassie involves staining the whole gel, not just the proteins. By destaining the gel, proteins are visualised since they retain the dye far better than the gel. Coomassie sensitivity (detection limit) is approximately 100ng, which makes detection of low abundant proteins difficult. Having said that, it is simple, cheap and quick to perform and has the advantage of being compatible with mass spectrometry. However, reproducibility is an issue with this stain due to challenges in standardising the destaining step
- Colloidal Coomassie is an adaptation of classical Coomassie staining using a modified Coomassie dye (G-250 instead of R-250). It has increased sensitivity compared to classical Coomassie, with an enhanced detection limit of approximately 10ng. It is simple to perform and since the colloidal dye does not penetrate the gel, destaining is not required (though can be performed to improve background). As with classical Coomassie, the colloidal technique is compatible with mass spectrometry

In addition to Coomassie staining, silver staining is another popular method for visualising proteins. The main benefit of silver staining is its high sensitivity as you are able to detect less than 1ng protein, making it the preferred stain for detection of low abundance proteins. However, silver staining is time consuming and laborious. The gel requires developing after staining, in order to visualise the proteins, and the length of time for developing can vary considerably between gels making reproducibility a challenge. Silver staining also involves the use of formaldehyde when fixing the gel making it incompatible with mass spectrometry.



Q. Do you have the formulation for Cat. No 10649743?

A. The formulation of Fisher BioReagents Cat. No 10649743 Phosphate Buffered Saline (PBS), 10X solution is as follows:

- 1.37M Sodium chloride
- 0.027M Potassium chloride
- 0.119M Phosphate buffer

The phosphate buffer consists of two components, namely 0.101M sodium phosphate dibasic heptahydrate (CAS No. 7782-85-6) and 0.018M potassium phosphate monobasic (CAS No. 7778-77-0).

Q. Can I stain with Coomassie blue and then Western blot?

A. Yes, it is possible to stain with either Coomassie or colloidal blue stain prior to Western blotting, though decreased transfer and subsequent probing efficiency may occur. However, it is important to note that this is generally only recommended using colloidal stain. To ensure optimal transfer efficiency, destain the gel and then equilibrate in a series of Tris base/glycine/SDS solutions to increase solubility. When the transfer is complete, the membrane should be treated with methanol to remove the stain prior to chromogenic development (not necessary prior to chemiluminescent detection).

Q. How can I improve transfer efficiency for larger proteins during Western blotting?

A. Here are some options for obtaining more efficient transfer for larger proteins:

- 1) Pre-equilibrate the gel with 0.02 to 0.04% SDS in 2X transfer buffer without methanol for 10mins before assembling the sandwich
- 2) Increase the blotting time incrementally (in 15min intervals)
- 3) Add 0.01% or 0.02% SDS to the transfer buffer to help facilitate the migration of the protein out of the gel
- 4) Decrease the methanol content in the transfer buffer
- 5) Switch to a more appropriate lower percentage gel. A lower percentage gel may allow better transfer than a higher percentage gel

Q. How can I improve the transfer efficiency of protein ladders when Western blotting onto a PVDF membrane?

A. There are two factors to consider - poor transfer and the ladder passing through the membrane during the transfer.

For poor transfer onto membrane, consider the following:

- The percent acrylamide should be 8% to get rapid, more complete transfer of high molecular weight proteins
- Increase voltage, current, or length of time for transfer
- For transfer to PVDF, omit the SDS from the transfer buffer. Addition of SDS (or use of old buffer that may have SDS leached in from the gel) will cause the proteins to bind less efficiently to PVDF membranes because it inhibits the hydrophobic interaction between the membrane and the protein
- If the problem is the protein staying in the gel, consider any of the following:
  - Increase the SDS concentration to 0.1% (but use nitrocellulose)
  - Eliminate the methanol in the buffer
  - Reduce the acrylamide percentage
  - Transfer for longer

If the ladder goes through membrane during transfer:

- Decrease voltage or transfer
- Check concentration of SDS and methanol. Too much SDS can prevent binding to the membrane. Alcohol enhances hydrophobic binding to membrane; not enough alcohol may prevent binding
- Use a 0.2µm pore size of nitrocellulose
- Check gel percentage; smaller proteins will pass through membranes more easily

Q. What are the standard lysis buffers used with mammalian cells for detection of protein expression by immunoprecipitation or Western blot analysis?

A. The most commonly used buffer is RIPA buffer with SDS. The usual formulation is as follows:

- 150mM NaCl, 10mM Tris, pH 7.2, 0.1% SDS, 1.0% Triton X-100, 1% deoxycholate, 5mM EDTA
- Protease inhibitors: 1mM phenylmethylsulfonyl fluoride, 10mM benzamidine, 2µg/mL leupeptin
- Phosphatase inhibitors: 100µM sodium orthovanadate, 10mM p-nitrophenylphosphate

## Procedure:

1. Place cells on ice
2. Wash cells with ice cold PBS to remove media
3. Add 1mL RIPA buffer to 100mm dish. Scale up or down as necessary
4. Scrape cells into RIPA buffer and transfer to small centrifuge tube
5. Stand on ice for 10min, vortexing every few minutes to dissolve material. Lysates can also be passed through a 22 gauge needle to aid in solubilisation
6. Centrifuge at 17,000rpm for 10min
7. Remove supernatant for protein assays and discard the pellet

NOTE: For experiments in which it is not desirable to fully denature proteins and possibly break protein:protein interactions, the RIPA buffer can be replaced with a non-denaturing NP40 solubilisation buffer with the following components: 150mM NaCl, 20mM Tris, pH 7.5, 1% NP40 or 1% Triton-X-100, and 5mM EDTA. If this non-denaturing buffer is used, lysates should be homogenised or passed through a needle several times to ensure adequate solubilisation.

## Q. How can I reduce background bands in my Western blot?

A. Optimise the concentration of primary and secondary antibodies. In some cases, increasing the concentration of blocking agent (BSA or non-fat dry milk) reduces background signal. After incubation with the primary antibody, wash at least two times with TBST (include 0.5M NaCl in one or more of the wash steps). Avoid Nonidet™ P40 or Triton™ X-100 in buffers as these detergents decrease protein detection.

## Q. Can I use BSA (Fisher BioReagent Cat. No 12737119) to make blocking buffer for Western blotting?

A. Yes, Cat. No 12737119 (Bovine Serum Albumin, fraction V heat shock treated), can be used in a number of molecular biology applications including Western blots (as a blocking agent) and ELISA, and as a stabiliser for enzymatic reactions. Another newer BSA product that you may consider is Cat. No 12871630 (BSA, heat shock treated and protease free). This product has found great use in RIA and ELISA and as a blocking agent.

## Q. How can I store, strip, and reuse my Western blot?

A. For storage, following transfer, air dry the blot and place it between two clean sheets of filter paper. Place the blot-filter paper sandwich between two sheets of card, in order to keep it flat, and place it in a sealable plastic bag. The blot can be stored at 4°C for up to two weeks, -20°C for up to two months or indefinitely at -80°C. When ready to reprobe, pre-wet the blot with alcohol for a few seconds, followed by a few rinses with pure water to reduce the alcohol concentration. To strip the blot:

- In a fume hood, submerge the blot in stripping buffer (100mM β-mercaptoethanol, 2% SDS, 62.5mM Tris-HCl, pH 6.7) and incubate at 50°C for 30min with occasional agitation
- Wash 2 x 10min in TBS-T/PBS-T at room temperature
- Block the membrane by immersing in 5% blocking reagent TBS-T or PBS-T for one hour at room temperature
- Proceed with next round of immunodetection

Often you do not need such harsh conditions to remove antibodies from their proteins. An alternative and milder method for stripping a blot is achieved by lowering the pH of the stripping buffer.

- Submerge the blot in stripping buffer (1% SDS, 25mM glycine-HCl, pH 2.0) and incubate at 50°C for 30 minutes with occasional agitation
- Wash 2 x 10min in TBS-T/PBS-T at room temperature
- Block the membrane by immersing in 5% blocking reagent TBS-T or PBS-T for one hour at room temperature
- Proceed with next round of immunodetection

## References

1. Sambrook, Fritsch, and Maniatis, Molecular Cloning, A Laboratory Manual, Second Edition, Cold Spring Harbor Laboratory Press, 1989
2. Current Protocols in Molecular Biology, Greene Publishing Associates and Wiley-Interscience, 1989
3. Weiss, W., Weiland, F. & Görg, A. (2009), Protein detection and quantitation technologies for gel-based proteome analysis, in J. Reinders & A. Sickmann, eds, 'Proteomics', Vol. 564 of Methods in Molecular Biology, Humana Press, pp. 59–82.

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## Frequently Asked Questions (FAQ's): Glassware and Plasticware

Q. What are the main differences between borosilicate glass and soda lime glass?

A. The primary distinction between borosilicate and soda lime glass is the substitution of boric oxide for soda and lime in the manufacturing process. Borosilicate glass has a higher heat resistance and does not expand like soda lime glass, meaning that it is able to handle both extreme heat and cold, making borosilicate very popular for laboratory glassware.

Q. Can Fisherbrand glassware be autoclaved?

A. Glassware is generally considered safe for autoclaving. When autoclaving glass containers ensure that caps are loosened. Autoclaving with tightly screwed caps can result in pressure differences and consequent breakage.

Do not autoclave glassware that is etched, cracked, nicked or scratched. Such defects reduce the thermal strength, making the glassware more prone to breakage.

Q. Why are measuring flasks and beakers never classified as either Class A or Class B?

A. Whilst Erlenmeyer flasks and beakers are marked with approximate volume indication, there will always be +/- 5% variability associated with the accuracy of their graduation markings because of the very shape and nature of the products themselves and their means of manufacture. There are only five volumetric measuring devices recognised as suitable for precise and accurate analytical work. These are volumetric flasks, measuring cylinders, burettes and volumetric pipettes and are classified into the two different grades, Class A and Class B.

Q. What are the differences between Class A and Class B volumetric glassware?

A. Laboratory volumetric glassware such as volumetric flasks, measuring cylinders, burettes and volumetric pipettes are produced and calibrated in accordance with American Society for Testing and Materials (ASTM) standards (ASTM predates other standard organisations such as BSI and DIN). They are available as two different grades, Class A or Class B. The ASTM standards define the tolerances within which the markings are placed on the glass. Class A is the most accurate as it has the smallest tolerances, with Class B in general, twice the acceptance range of Class A.

Q. What are the differences between Class AS and Class A?

A. Fisherbrand glass volumetric pipettes are Class AS, which has recently replaced Class A. Class AS is the European standard and shares the same high accuracies and tolerances to the relevant ISO and DIN standards as Class A. Class AS serological pipettes also have a faster dispensing speed than Class A pipettes (the S stands for the German word 'schnell' which translates as 'swift'). As a consequence of the increased dispensing speed, a five second waiting time must be observed when filling or dispensing the required volume. This ensures that the meniscus has settled and maintains accuracy.

Q. Can I use ultrasonic cleaners to clean my glassware?

A. Ultrasonic cleaning is a good way of cleaning glassware thoroughly. Ultrasonic cleaners that use heaters are the best. Generally, using an ultrasonic cleaner with a mild detergent will clean most residues from glassware. When using equipment to clean glassware, ensure that the items are secure and take extra care when loading and unloading as this is a common cause of chips and breakages.

Q. What is amber coated glassware used for?

A. Amber glass is used in laboratories for the protection of UV sensitive chemicals and materials. Amber glass blocks all UV radiation from 350 to 200nm. The UVC range used for micro-organism sterilisation (between 200 to 280nm) is also cut out, but it is important to stress that not all UV radiation is blocked by amber glass.

Q. What is the shelf-life of a glass bottle?

A. Glass containers do not have an expiration date or a limit to their shelf-life. However, it is important to regularly check your glassware for signs of damage which could lead to a compromise in safety or accuracy. If there are significant signs of damage it should be disposed of and replaced.

## Q. What is the maximum temperature that I can heat my glassware?

A. Generally, glassware can withstand temperatures up to 500°C. However, once the temperature exceeds 150°C, extra special care should be taken to ensure that heating and cooling is achieved in a slow and uniform manner.

If you are using a hotplate, ensure that the top plate is larger than the base of the vessel to be heated. Also, never put cold glassware onto a hotplate which is already well heated. Warm up gradually from ambient temperature.

If using a bunsen burner, adjust it to get large soft flame, this will heat the glass slowly and more uniformly. In addition, use a wire gauze with a ceramic centre to diffuse the flame.

## Q. Do items of glassware such as burettes, volumetric flasks and pipettes need to be recalibrated after a certain length of time? If so, how frequently do they need to be calibrated?

A. There are no defined guidelines about when to have your glassware re-calibrated as it depends on how it is cleaned, handled and stored. Normally, volumetric glassware only needs re-calibrating after extensive or demanding usage, as this may have affected its original accuracy. For example recalibration should be considered if:

- The glassware is made from soda-lime glass and has been in use for over five years
- The glassware is made from borosilicate and has been in use for over ten years
- The glassware has been subjected to temperatures in excess 150°C
- The glassware is frequently used with strong acids or bases
- There are any signs of chemical corrosion e.g. frosting of internal glass surfaces

## Q. How should I clean my volumetric glassware?

A. The best insurance for accurate volumes is to insure that your glassware is clean. For burettes and pipettes, cleanliness of the glassware is indicated by the absence of any 'water beads' on the inside surface of the glassware. When the item is clean, the solution will exist in a thin, unbroken film on the inside of the glassware.

Typically, a brief soaking in a warm detergent solution will be enough to clean pipettes and volumetric glassware. You should avoid soaking the glassware for too long, because if it is left for too long with the detergent solution, a rough area is likely to develop at the glass/air interface, which may destroy the usefulness of the equipment. After a brief (2 to 3 mins) soaking, the glassware should be rinsed thoroughly with tap water, and finally 3 to 4 rinses with distilled or deionised water. Don't dry the glass surface with towels, just leave it protected from the dust. It is not necessary to dry the glass in the lab dryer, but if you have one - use it. Not only will it dry the glass faster, but it will also keep the glass protected from the dust during drying.

## Q. Are Fisherbrand glass bottles pressure rated?

A. Fisherbrand bottles are not pressure rated and great care should be taken when using glassware for pressure applications. Fisher Scientific cannot guarantee any glassware against breakage when used under vacuum or pressure.

## Q. Which plastics are autoclavable?

A. Only polypropylene, PTFE, PC and PMP (TPX) products can be autoclaved (autoclave cycle is defined as 121°C at 15psi (1bar) for 20 minutes). When autoclaving bottles always ensure the caps are loosened. Autoclaving with tightly screwed caps can result in collapse or deformation. Also, do not subject plastic volumetric ware such as measuring cylinders, flasks etc to temperatures above 60°C as high temperatures can affect volumetric accuracy

## Q. I am looking for large sample bottles which I can store in a freezer. What would you suggest?

A. Both LDPE and HDPE has a brittleness temperature of -100°C and so can be used when freezing samples too large for standard cryovials. Care should be taken to ensure that there is enough space left in the container for the sample to expand. Suggestions include Fisher Scientific Cat. No 11735383, 11775243 and 11957934. For the full range of available volumes and neck sizes please refer to [www.eu.fishersci.com](http://www.eu.fishersci.com)

Q. I am looking for a plastic storage bottle and it is important for me to clearly see the contents. What polymer would you suggest?

A. For applications where optical clarity is important, polymers such as polystyrene, PET, PMP or polycarbonate would be favourable. Other polymers such as polypropylene and polyethylene are translucent and in some cases opaque and are therefore not ideal for this requirement.

Q. What chemicals are compatible with laboratory plasticware?

A. For specific chemical compatibility with particular polymers, please refer to the 'Chemical Compatibility Chart' chart on pages 149-150.

Q. What type of detergent should I clean my plasticware with?

A. A low or non-alkaline detergent is suitable for cleaning most plasticware, such as Fisher Scientific Cat. No 12701875. Note, however, that polystyrene and polycarbonate products are susceptible to attack by alkalis and a neutral detergent is recommended, such as Fisher Scientific Cat. No 11502773. It is also important to avoid using abrasive cleaners or scouring pads which can result in surfaces becoming scratched and weakened.

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## Frequently Asked Questions (FAQ's): Traceable™ Products

### Q. What is Traceable™ ?

A. In the context of measurement science, 'traceability' means that the result of a measurement can be traced back to a national authority such as the National Institute of Standards and Technology (NIST), a United States Government Agency within the Commerce Department. In other words, there exists a known valid relationship to international or nationally recognised standards and a thoroughly documented unbroken chain of reference to the measurement authority. The ISO 17025 calibration certificate that comes as standard with the units is recognised in all European countries.

### Q. Why should I purchase Traceable™ products?

A. Each Traceable™ unit is individually serialised, calibrated and certified. An individually serialised Traceable™ Calibration Certificate provides assurance that an independent auditor has checked the methods, procedures, testing, technique, and record-keeping practices of the calibration testing laboratory. The American Association for Laboratory Accreditation (A2LA) is widely recognised internationally through bilateral and multilateral agreements and through its participation in International Laboratory Accreditation (ILAC) and Multilateral Recognition Agreement (MRA). There is no need to have the units calibrated locally before use, because all European governing bodies fully accept and recognise the Traceable™ certificate of calibration.

### Q. How long are the Traceable™ calibration certificates valid for?

A. Units are calibrated for two years from date of manufacture. Generally, following shipping and stocking of the units, we would advise that you should expect a minimum of one year.

### Q. What does accuracy mean?

A. Accuracy is a definition of how accurate the instrument is compared with a known value. Since it is very unlikely that anything will be exactly accurate, it is usually accompanied by a reference to a tolerance. The tolerance indicates the value of inaccuracy that is inherent in the instrument. For example, an instrument that has an accuracy rating of  $\pm 1^{\circ}\text{C}$  means that the unit's display can show up to  $1^{\circ}\text{C}$  higher or  $1^{\circ}\text{C}$  lower than the actual temperature that is being measured and still be within the stated tolerance and accuracy of the unit.

### Q. What does resolution mean?

A. The resolution of an instrument is the smallest value that is shown on the display. Thus an instrument that has a  $0.1^{\circ}\text{C}$  resolution means that it will read to the nearest  $0.1^{\circ}\text{C}$  (perhaps  $8.6^{\circ}\text{C}$ ) on the display, whereas an instrument with a  $1^{\circ}\text{C}$  resolution will only read to the nearest  $1^{\circ}\text{C}$  ( $9^{\circ}\text{C}$ ).

### Q. If I replace the battery on my Traceable™ timer do I need to recalibrate it?

A. None of the Fisherbrand Traceable™ products need to be recalibrated or recertified due to a battery change. These units are traceable back to NIST standards and the ISO 17025 calibration certificate that comes as standard with the units is recognised in all European countries.

### Q. Can you replace the scoop on the Traceable™ SpatulaBalance™?

A. Yes replacement scoops are available, Fisher Scientific Cat. No. 15388764. This is the standard replacement scoop, 30mL. There is also a larger replacement scoop available which is 40mL, Fisher Scientific Cat. No 15398764.

### Q. When it states 'shows MIN/MAX' when referring to thermometers, what does this mean? Also, what does HI/LO and IN/OUT mean?

A. MIN/MAX are the temperature readings at the lowest range (minimum) achieved and the highest range (maximum) reached since the thermometer's memory was last cleared; MIN/MAX is NOT a settable feature. On several units, you can program HI and LO alarms, so that if the temperature of what you are measuring goes outside of your pre-set values, the unit will alarm. Several thermometers also feature IN/OUT readings. The IN and OUT temperatures refer to different sensors, the IN is the internal sensor located inside the unit and the external probe is referred to as OUT.

### Q. What is the function of the bottle/vaccine thermometer probe?

A. Bottle probes are useful for use in refrigerators where the door is likely to be opened on a regular basis. The probe sealed within the bottle gives an indication of the temperature of the product within the refrigerator itself rather than the air temperature, which would be affected quite quickly by the door being opened. The vaccine probe uses a similar concept, but is of similar dimensions to most vaccine bottles. This helps to give an accurate determination of the temperature of the vaccine being stored.

Q. Bottle sealed probes are used with a number of Traceable™ thermometers. What are these bottles filled with?

A. Bottle probes are filled with non-toxic glycol solution, which is 'GRAS' (generally recognised as safe) by the US FDA.

Q. My application requires high accuracy, which product should I go for?

A. The various 'Ultra' products in the Traceable™ range are calibrated with an accuracy of 0.4°C at tested calibration points. 'Extreme accuracy' units are also available. These are calibrated with an accuracy of  $\pm 0.05$  within 2°C of tested points. These are available for the commonly tested points of 0°C, 25°C and 37°C. Additionally, the platinum high-accuracy thermometers have an accuracy of  $\pm 0.1$ °C across the entire temperature range.

Q. My thermometer is giving erratic readings, what could be going wrong?






A. Erratic readings, a faint display, or no display are all indicators that the batteries must be replaced. In most cases, simply changing the battery will allow the unit to begin functioning normally again.

Q. I have two thermometers that are showing different temperatures. Is there something wrong with them?


A. When comparing two thermometers, you must add the tolerances of the two units together to identify the total amount of variance that can be found within the two units and still be considered within specification. For example, when comparing two of the same unit that have a  $\pm 0.1$ °C accuracy, the two units can display temperatures that are up to 0.2°C different. When comparing temperatures of difference thermometers it is important that the type of probes that you are comparing are equivalent.

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## HEALTH HAZARDS

Hazard classes and hazard categories*	Label elements		
Acute toxicity, categories 1, 2 <ul style="list-style-type: none"> <li>• Oral</li> <li>• Dermal</li> <li>• Inhalation</li> </ul>		H300 H310 H330	DANGER
Acute toxicity, category 3 <ul style="list-style-type: none"> <li>• Oral</li> <li>• Dermal</li> <li>• Inhalation</li> </ul>		H301 H311 H331	
Germ cell mutagenicity, categories 1A, 1B Carcinogenicity, categories 1A, 1B Reproductive toxicity, categories 1A, 1B STOT***, single exposure, category 1 STOT***, repeated exposure, category 1		H340 H350 H360 H370 H372	DANGER
Respiratory sensitisation, category 1 Aspiration hazard, category 1		H334 H304	
Germ cell mutagenicity, category 2 Carcinogenicity, category 2 Reproductive toxicity, category 2 STOT***, single exposure, category 2 STOT***, repeated exposure, category 2		H341 H351 H361 H371 H373	WARNING
Acute toxicity, category 4 <ul style="list-style-type: none"> <li>• Oral</li> <li>• Dermal</li> <li>• Inhalation</li> </ul>		H302 H312 H332	
Skin corrosion, categories 1A, 1B, 1C		H314	DANGER
Serious eye damage, category 1		H318	
Skin irritation, category 2 Eye irritation, category 2 Skin sensitisation, category 1 STOT*** after single exposure, category 3 <ul style="list-style-type: none"> <li>• Respiratory tract irritation</li> </ul>		H315 H319 H317 H335	WARNING
• Narcotic effects		H336	

## ENVIRONMENTAL HAZARDS

Hazardous to the aquatic environment, acute, category 1 Hazardous to the aquatic environment, chronic, category 1		H400 H410	WARNING
Hazardous to the aquatic environment, chronic, category 2		H411	

## PHYSICAL HAZARDS

Hazard classes and hazard categories*	Label elements		
Explosives <ul style="list-style-type: none"> <li>• Unstable explosives</li> <li>• Explosives, divisions 1.1 to 1.3</li> </ul> Self-reactive substances, mixtures, types A, B Organic peroxides, types A, B		H200 H201, H202, H203 H240, H241 H240, H241	DANGER
Explosives, division 1.4		H204	
Flammable gases, category 1 Flammable aerosols, category 1 Flammable liquids, category 1		H220 H222 H224	WARNING / DANGER
Flammable liquids, category 2 Flammable solids, category 1 Flammable solids, category 2		H225 H228 H228	
Flammable aerosols, category 2 Flammable liquids, category 3		H223 H226	WARNING
Pyrophoric liquids, category 1 Pyrophoric solids, category 1 Substances, mixtures which in contact with water emit flammable gases, categories 1, 2 and category 3		H250 H250 H260 H261 H261	
Self-reactive substances, mixtures, type B Self-reactive substances, mixtures, types C, D and types E, F Self-heating substances, mixtures, category 1 and category 2		H241 H242 H242 H251 H252	WARNING / DANGER
Organic peroxides, type B Organic peroxides, types C, D Organic peroxides, types E, F		H241 H242 H242	
Oxidising gases, category 1 Oxidising liquids, categories 1, 2 and category 3 Oxidising solids, categories 1, 2 and category 3		H270 H271, H272 H272 H271, H272 H272	WARNING / DANGER
Gases under pressure <ul style="list-style-type: none"> <li>• Compressed gases</li> <li>• Liquefied gases</li> <li>• Refrigerated liquefied gases</li> <li>• Dissolved gases</li> </ul>		H280 H280 H281 H280	
Corrosive to metals, category 1		H290	WARNING

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57	La	138.90547	Lanthanum	58	Ce	140.116	Cerium	59	Pr	140.90765	Praseodymium	60	Nd	144.242	Neodymium	61	Pm	[145]	Promethium	62	Sm	150.36	Samarium	63	Eu	151.964	Europium	64	Gd	157.25	Gadolinium	65	Tb	158.9253	Terbium	66	Dy	162.5	Dysprosium	67	Ho	164.93032	Holmium	68	Er	167.259	Erbium	69	Tm	168.93421	Thulium	70	Yb	173.054	Ytterbium	71	Lu	174.968	Lutetium
89	Ac	[227]	Actinium	90	Th	232.03806	Thorium	91	Pa	231.03588	Protactinium	92	U	238.02891	Uranium	93	Np	[237]	Neptunium	94	Pu	[244]	Plutonium	95	Am	[243]	Americium	96	Cm	[247]	Curium	97	Bk	[247]	Berkelium	98	Cf	[251]	Californium	99	Es	[252]	Einsteinium	100	Fm	[257]	Fermium	101	Md	[258]	Mendelevium	102	No	[262]	Nobelium	103	Lr	[262]	Lawrencium
Post-transition metals			Transition metals			Lanthanide metals			Alkaline earth metals			Metalloids			Alkali metals			Other nonmetals			Halogens			Actinide			Noble gases			Radioactive element			Synthetic element			Gas			Liquid			Solid																	

## CHEMICAL GRADES

Table 1: Fisher Chemical Grades

Grade	Application	Definition
<b>HPLC</b>	HPLC isocratic analysis	HPLC grade solvents and reagents show low UV absorbance as guaranteed suitability for isocratic HPLC applications.
<b>UHPLC-MS Optima™</b>	UHPLC-MS	Ultra high-purity solvents specifically qualified for UHPLC-MS instrumentation, with a specification based on higher ionisation efficiency to detect organic contaminants in full scan MS with the absence of an additive. Signal-to-noise specification greater than ten when measured with 250ppt propazine using MS/MS. Filtered at 0.1µm, packaged in borosilicate glass and tightened metal specifications minimising metal ion adduct formation.
<b>Optima™ LC-MS</b>	LC-MS	Meets stringent purity requirements of LC/MS and UHPLC by addressing the need for minimal organic contamination with 0.1µm filtration to ensure particle free. Evaluated for 17 metal impurities at ppb concentrations for minimal metal mass adduct formation. High ionisation efficiency to detect organic contaminants at 50 ppb max (positive) and 300 ppb max (negative) in full scan MS. Screened for UV-absorbing contaminants at every wavelength in the 200 to 400nm range to afford smooth baselines and to reduce interferences.
<b>LC-MS</b>	LC-MS	Ideal mobile phase for routine LC-MS applications. Guaranteed for low level of trace metals and non-volatile residue. Low level of absorbance, performance under gradient conditions. Filtered at 0.2µm.
<b>UHPLC Gradient Grade</b>	UHPLC-UV	Solvent certified for UHPLC analysis with high UV transmission. Low background noise at 210nm and 254nm. Filtered at 0.1µm for ultra-low particulates.
<b>Advanced HPLC Gradient Grade</b>	HPLC gradient analysis	Advanced HPLC gradient grade specifically manufactured to guarantee a very low level of gradient baseline drift. Includes lot analysis and absorbance curve on the label.
<b>HPLC Gradient Grade</b>	HPLC gradient analysis	HPLC solvents suitable for gradient analysis. Guaranteed for low absorbance/high UV transmission and low concentration of non-volatile impurities. In some instances may be suitable for fluorescence detection. Includes lot analysis and absorbance curve on the label.
<b>HPLC Fluorescence</b>	HPLC with fluorescence and UV detectors	HPLC solvents suitable for fluorescence and UV detectors. Guaranteed for low fluorescence between 250nm and 750nm emission and excitation wavelengths.
<b>HPLC Electrochemical</b>	HPLC with electrochemical and UV detectors	HPLC solvents suitable for electrochemical and UV detectors. Guaranteed for low electrochemical activity and low UV absorbance/high transmission. Includes lot analysis and absorbance curve on label.
<b>GPC</b>	GPC - gel permeation chromatography	Solvents manufactured for gel permeation chromatography. Filtered to 0.2µm. Low water, residue and colour. Actual lot analysis on the pack label.
<b>Distol</b>	GC - gas chromatography	Range of solvents suitable for pesticide and petroleum residue analysis. Guaranteed to meet the ECD, NPD and FID detectors requirement.
<b>Optima™ Grade</b>	ICP-MS	Highest purity acids, bases and water specifically qualified for ultra-trace elemental analysis by ICP-MS instruments. Ultra-pure quality tested for up to 65 parameters at 1-100 ppt level.
<b>Trace Metal™ Grade</b>	ICP	TraceMetal™ grade qualified for trace elemental analysis by ICP instruments. Acids and reagents tested for up to 65 parameters at ppb levels.
<b>Primar Plus™ Grade</b>	AAS	Primar Plus™ grade suitable for trace elemental analysis by AAS instruments. Acids and reagents are tested for up to 40 parameters at 1 to 10 ppb level.
<b>For Analysis</b>	General analytical applications	Certified reagents for analytical application. Tested for up to 18 guaranteed parameters. Actual lot analysis on the pack label.
<b>For Analysis Conform Eur.Ph.</b>	General analytical applications	Certified reagents for analytical application meeting the Eur.Ph requirement. Tested for up to 18 guaranteed parameters. Actual lot analysis on the pack label.
<b>Specified Laboratory Reagent (SLR)</b>	General laboratory applications	Specified Laboratory Reagents for general laboratory applications. Tested for up to 13 parameters.
<b>Technical</b>	General use	For general use in the laboratory or wider workplace environments.
<b>Buffer</b>	pH-Metry	Buffer NIST standard solutions certified for pH measurement. Ready to use, with an accuracy factor of ±0.02 pH at 20°C. Also available as concentrates, packaged in ampoules.
<b>Volumetric Solution</b>	Volumetry	Standard solutions for volumetric analysis. Accuracy factor up to 0.999 - 1.001 NIST traceability. Ready to use.
<b>Solutrate</b>	Volumetry	Concentrated standard solutions for volumetric analysis. NIST traceability. Supplied in singles or pack of six sealed ampoules.
<b>Aqualine™</b>	Karl Fischer titration	Karl Fischer reagents for the determination of moisture. Volumetric and coulometric reagents and standards. Pyridine free, rapid titration and a stable end-point. Supplied in single packs or in ampoules.

For up to date GHS information on Fisher Chemical products listed please refer to the safety data sheet available from [www.eu.fishersci.com](http://www.eu.fishersci.com)



## CHEMICAL COMPATIBILITY

The chemical compatibility chart below is for reference purposes only. Many factors affect the chemical resistance of labware products and we would kindly remind you that it is your responsibility to do a test under your own conditions to ensure that the product you are using is fully compatible.

Table 2: Chemical Compatibility Chart

### How to Use This Chart

Use this chart as a **General Guide** only. Test each chemical before exposing to or storing in the labware that is to be used. The first letter of each pair represents the resistance rating at 20°C; the second at 50°C.

**E — No damage** after 30 days of constant exposure.

**G — Little or no damage** after 30 days of constant exposure.

**F — Some effect** after 7 days of constant exposure. Depending on the material, the effect may be cracking, crazing, loss of strength or discolouration. Solvents may cause softening, swelling, and permeation losses with PP, PMP, LDPE and HDPE; the solvent effects on these materials are normally reversible.

**N — Not recommended** for continuous use. Immediate damage may occur. Depending on the material, the effect will be severe cracking, crazing, loss of strength, discolouration, deformation, dissolution or permeation loss.

### Effects of Chemicals on Labware

Chemicals may affect the weight, strength, colour, dimensions, flexibility and surface appearance of labware. The basic models of interaction that cause these changes are:

- (1) chemical attack on the polymer chain, with resultant reduction in physical properties, including oxidation; reaction of functional groups in or on the chain; and depolymerisation;
- (2) physical change, including absorption of solvents, resulting in softening and swelling of the plastic; permeation of solvent through the plastic; or dissolution in a solvent; and
- (3) stress-cracking from the interaction of a "stress-cracking agent" with moulded-in or external stresses.

The reactive combination of compounds of two or more classes may cause a synergistic or undesirable chemical effect. Other factors affecting chemical resistance include: temperature, pressure, internal or external stresses (such as centrifugation), and length of exposure to and concentration of the chemical. As temperature increases, resistance to attack decreases.

#### Warning!

**Do not store strong oxidising agents in plastic containers except those made of FEP, PFA or PTFE. Other plastics will become brittle after prolonged exposure.**

CHEMICAL	LDPE	HDPE	PP/PPCO	PMP	FEP/PTFE/PFA	ECTFE/ETFE	PC	PVC (Flexible)	PSF	PVDF	PS	NYL	Stainless Steel	Glass	Ceramic
Acetaldehyde	GN	GF	GN	GN	EE	GF	N	N	NN	EE	NN	EG	EE	EE	EE
Acetamide, sat.	EE	EE	EE	EE	EE	EE	NN	NN	NN	—	EE	EE	EE	EE	EE
Acetic acid, 5%	EE	EE	EE	EE	EE	EE	EG	G	EE	EE	EG	FN	EE	EE	EE
Acetic acid, 50%	GF	G	EE	EE	EE	EG	GF	FN	EE	EE	GG	NN	EE	EE	EE
Acetic acid, glacial	GN	GC	EG	G	EE	EE	NN	NN	EE	EG	F	NN	EG	EE	EE
Acetone	G	NN	NN	EE	EE	N	NN	NN	NN	NN	NN	EE	EE	EE	EE
Acetonitrile	EE	EE	FN	FN	EE	EE	NN	NN	NN	EE	NN	EE	EG	EE	EE
Acrylonitrile	EE	EE	FN	FN	EE	EG	NN	NN	NN	GF	NN	EG	EG	EE	EE
Adipic acid	EG	EE	EE	EE	EE	EE	EE	EG	GG	—	EE	EF	EG	EE	EE
Alanine	EE	EE	EE	EE	EE	EE	EE	EG	E	—	EE	EG	—	—	—
Allyl alcohol	EE	EE	EE	EG	EE	EE	G	N	GF	—	GF	NN	EE	EG	EG
Aluminium hydroxide	EG	EE	EG	EG	EE	EE	FN	EG	GG	EE	GG	EE	EE	NN	EE
Aluminium salts	EE	EE	EE	EE	EE	EE	EG	G	EE	EE	E	NN	GG	EE	EE
Amino acids	EE	EE	EE	EE	EE	EE	EE	G	EE	EE	EE	EG	—	—	—
Ammonia	EE	EE	EE	EE	EE	EE	NN	GF	GF	EE	EG	FF	EE	EE	EE
Ammonium acetate, sat.	EE	EE	EE	EE	EE	EE	GG	EE	EE	EE	EE	EG	EG	EE	EE
Ammonium glycolate	EG	EE	EG	EG	EE	EE	GF	GF	GG	EE	EE	GG	—	—	—
Ammonium hydroxide, 5%	EE	EE	EE	EE	EE	EE	FN	G	GG	EE	EF	GF	EE	EE	EE
Ammonium hydroxide, 30%	EG	EE	EG	EG	EE	EE	NN	GF	GG	EE	GF	FN	EE	EE	EE
Ammonium oxalate	EG	EE	EG	EG	EE	EE	EE	GN	EE	EE	EE	GF	EE	EE	EE
Ammonium salts	EE	EE	EE	EE	EE	EE	G	EG	EE	EE	GG	NN	EE	EE	EE
n-Amyl acetate	GF	EG	GF	GF	EE	EE	NN	NN	NN	EE	NN	EE	EE	EE	EG
Amyl chloride	NN	FN	NN	FF	EE	EE	NN	NN	NN	EE	NN	EG	EG	EE	EE
Aniline	EG	GF	GF	GF	EE	GN	NN	NN	NN	EF	NN	GF	EG	EE	EE
Benzaldehyde	EG	GN	EG	F	EE	EF	N	NN	FF	EE	NN	EG	GG	EE	EE
Benzene	N	NN	NN	N	EE	EG	NN	NN	NN	EE	NN	EE	GG	EE	EE
Benzoic acid, sat.	EE	EE	EG	EG	EE	EE	EG	EG	FF	EE	GG	NN	EG	EE	EE
Benzyl acetate	EG	EE	EG	EG	EE	EG	FN	NN	NN	—	NN	EG	GG	EE	EE
Benzyl alcohol	NN	FN	NN	GG	EE	EE	NN	FN	NN	EE	NN	NN	GG	EE	EE
Bromine	NN	FN	NN	NN	EE	EG	FN	N	NN	EE	NN	NN	EE	EG	GG
Bromobenzene	NN	N	NN	NN	EE	GN	NN	NN	NN	EE	NN	EG	GG	GG	GG
Bromoform	NN	NN	NN	NN	EE	GF	NN	NN	NN	EE	NN	FF	GG	EE	EE
Butadiene	NN	FN	NN	NN	EE	EE	NN	N	NN	EE	NN	FF	GG	EE	EE
n-Butyl acetate	GF	GF	FN	F	EE	EG	NN	NN	NN	EE	NN	EE	GG	EE	EE
n-Butyl alcohol	EE	EE	EE	EG	EE	EE	GF	GF	GF	EE	EG	NN	EE	EE	EE
sec-Butyl alcohol	EG	EE	EG	EG	EE	EE	GF	GG	GF	EE	GG	NN	EE	EE	EE
tert-Butyl alcohol	EG	EE	EG	EG	EE	EE	GF	FN	GF	GG	EE	NN	EE	EE	EE
Butyric acid	NN	FN	NN	NN	EE	EE	N	N	GG	EE	NN	FN	GG	EE	EE
Calcium hydroxide, conc.	EE	EE	EE	EE	EE	EE	NN	G	GG	EE	GG	NN	GG	NN	EE
Calcium hypochlorite, sat.	EE	EE	EE	EG	EE	EE	FN	FN	EE	EE	GF	NN	EE	EE	EE
Carbazole	EE	EE	EE	EE	EE	EE	NN	NN	NN	—	EE	EE	—	—	—
Carbon disulfide	NN	NN	NN	NN	EE	EF	NN	NN	NN	EE	NN	EG	EE	EE	EE
Carbon tetrachloride	FN	GF	GF	NN	EE	EE	NN	NN	NN	EE	NN	EE	GG	EE	EE
Cedarwood oil	NN	FN	NN	NN	EE	EG	GF	EG	FF	EE	F	EG	—	—	—
Cellosolve acetate	EG	EE	EG	EG	EE	EG	FN	N	NN	EG	NN	EE	GG	EE	EE
Chlorine, 10% in air	GN	EF	GN	GN	EE	EE	EG	G	NN	EE	NN	NN	FF	EE	EE
Chlorine, 10% (moist)	GN	GF	FN	N	EE	EE	GF	FN	NN	EE	NN	NN	FF	EE	EE
Chloroacetic acid	EE	EE	EG	EG	EE	EE	FN	FN	NN	E	GN	NN	GG	EE	EE
p-Chloroacetophenone	EE	EE	EE	EE	EE	EE	G	NN	NN	—	NN	EG	—	—	—
Chloroform	FN	FN	NN	NN	EE	GF	NN	NN	NN	EE	NN	FF	EE	EE	EE
Chromic acid, 10%	EE	EE	EE	EE	EE	EE	GF	N	EG	EE	G	NN	GG	EE	EE
Chromic acid, 50%	EE	EE	GF	G	EE	EE	FN	GN	NN	EG	N	NN	FF	EE	NN
Cinnamon oil	NN	N	NN	NN	EE	EG	GF	NN	FF	—	NN	GF	EE	—	—
Citric acid, 10%	EE	EE	EE	EE	EE	EE	E	F	EE	EE	E	NN	GG	EE	EE
Cresol	NN	FN	GF	NN	EE	EG	NN	NN	NN	EE	NN	NN	EE	EE	EE
Cyclohexane	FN	FN	FN	NN	EE	EG	F	NN	NN	EE	NN	EE	EE	EE	EE
Decalin	GF	EG	GF	FN	EE	EE	E	NN	NN	—	NN	EE	—	—	—
o-Dichlorobenzene	FN	NN	FN	FN	EE	EF	NN	NN	NN	EE	NN	EG	GG	EE	EE
p-Dichlorobenzene	FN	NN	GF	GF	EE	EF	NN	NN	NN	EE	NN	EG	GG	EE	EE
Diethyl benzene	NN	FN	NN	NN	EE	EG	N	NN	NN	—	NN	EE	GG	EE	EE
Diethyl ether	NN	FN	NN	NN	EE	EG	NN	FN	NN	EG	NN	EE	GG	EE	EE
Diethyl ketone	NN	NN	GG	GF	EE	GF	NN	NN	NN	NN	NN	EE	GG	EE	EE
Diethyl malonate	EE	EE	EE	EG	EE	EE	FN	N	FF	EG	NN	EE	—	—	—
Diethylene glycol	EE	EE	EE	EE	EE	EE	GF	FN	GG	EE	E	EE	EE	EE	EE
Diethylene glycol ethyl ether	EE	EE	EE	EE	EE	EE	FN	FN	FF	—	NN	EE	EE	EE	EE
Dimethyl formamide	EE	EE	EE	EE	EE	GG	NN	N	NN	NN	NN	GF	EE	EE	EE
Dimethylsulfoxide	EE	EE	EE	EE	EE	EG	NN	NN	NN	—	EG	EE	EE	EE	EE
1,4-Dioxane	GF	GG	GF	FN	EE	EF	NN	NN	NN	NN	NN	EF	GG	EE	EE
Dipropylene glycol	EE	EE	EE	EE	EE	EE	GF	FN	GG	—	EE	EE	—	—	—
Ether	NN	FN	NN	F	EE	EG	NN	N	NN	EG	NN	EE	EE	EE	EE
Ethyl acetate	EE	EE	GF	FN	EE	EE	NN	NN	NN	NN	NN	EE	GG	EE	EE
Ethyl alcohol (absolute)	EG	EE	EG	EG	EE	EE	EG	FN	EG	EE	EG	NN	EE	EE	EE
Ethyl alcohol, 40%	EG	EE	E	EG	EE	EE	E	GF	EG	EE	EG	NN	EE	EE	EE
Ethyl benzene	N	FN	N	N	EE	GF	NN	NN	NN	—	NN	EE	GG	—	—
Ethyl benzoate	FF	GG	GF	GF	EE	EG	NN	NN	NN	NN	NN	EE	—	—	—
Ethyl butyrate	GN	GF	GN	FN	EE	EG	NN	NN	NN	NN	NN	EE	EG	—	—
Ethyl chloride, liquid	FN	NN	FN	FN	EE	EE	NN	NN	NN	EE	NN	GF	EE	EE	EE
Ethyl cyanoacetate	EE	EE	EE	EE	EE	EE	FN	N	FF	NN	GN	GF	—	—	—
Ethyl lactate	EE	EE	EE	EE	EE	EE	FN	N	FF	NN	FN	GF	—	—	—
Ethylene chloride	N	NN	NN	NN	EE	N	NN	NN	NN	EE	NN	EG	GG	EE	EE
Ethylene glycol	G	EE	EE	EE	EE	EE	EG	FN	EE	EE	EE	EE	GG	EE	EE
Ethylene glycol methyl ether	G	EE	GF	EE	EE	EE	N	FN	NN	—	NN	EE	—	—	—
Ethylene oxide	FF	GF	FF	FN	EE	EE	FN	G	EE	EE	NN	EE	GG	EE	EE
Fluorides	EE	EE	EE	EE	EE	EE	EE	GF	EE	EE	GG	EE	—	—	—
Fluorine	FN	GN	FN	FN	EG	EF	GF	FN	NN	—	NN	NN	EG	EE	—
Formaldehyde, 10%	EE	EE	EE	E	EE	EE	E	GF	EE	EE	GG	GF	EE	EE	EE

Table 2: Chemical Compatibility Chart - continued

CHEMICAL	LDPE	HDPE	PP/PPCO	PMP	PEB/TE/PFA	ECTFE/ETFE	PC	PVC (Flexible)	PSF	PVDF	PS	NYL	Stainless Steel	Glass	Ceramic
Formaldehyde, 40%	EG	G	EG	E	EE	EE	E	FN	GF	EE	GG	GF	EE	EE	EE
Formic acid, 3%	EG	G	EG	EG	EE	EE	EG	GF	GG	EE	EG	NN	GG	EE	EE
Formic acid, 50%	G	EE	EG	E	EE	EE	GF	GF	F	EE	G	NN	GG	EE	EE
Formic acid, 98 to 100%	G	EE	EG	E	EE	EE	FN	N	G	EE	G	NN	GG	EE	EE
Freon™ TF	EG	EG	EG	FN	EE	EG	N	NN	GF	EE	FN	—	EE	EE	EE
Fuel oil	FN	GF	EG	GF	EE	EE	EG	GF	EG	EE	F	EE	EE	EE	EE
Gasoline	N	GC	NN	GF	EE	EE	N	N	FF	EE	NN	EE	EE	EE	EE
Glycerine	EE	EE	EE	EE	EE	EE	FG	EE	EE	EE	EE	EE	EE	EE	EE
n-Heptane	N	F	FF	FF	EE	EE	NF	NN	EG	EE	NN	EE	EE	EE	EE
Hexane	NN	GF	FN	FN	EE	EE	FN	N	EG	EE	NN	EE	EE	EE	EE
Hydrochloric acid, 1 to 5%	EE	EE	EE	E	EE	EE	EE	G	EE	EE	EE	NN	NN	EE	EE
Hydrochloric acid, 20%	EE	EE	EE	EG	EE	EE	GF	GF	EE	EE	EE	NN	NN	EE	EE
Hydrochloric acid, 35%	EE	EE	EG	EG	EE	EE	F	FN	EE	EE	EE	NN	NN	EE	EE
Hydrofluoric acid, 4%	EG	EE	E	E	EE	EE	G	GF	GF	EE	GF	NN	NN	NN	—
Hydrofluoric acid, 48%	EE	EE	G	G	EE	EE	F	FN	FN	EE	NN	NN	NN	NN	NN
Hydrogen peroxide, 3%	EE	EE	EE	EE	EE	EE	EE	G	EE	EE	EG	NN	GG	EE	EG
Hydrogen peroxide, 30%	EG	EE	EG	EG	EE	EE	EE	GN	EE	EE	EG	NN	GG	EE	EG
Hydrogen peroxide, 90%	N	EE	EG	EG	EE	EE	EE	NN	EE	E-	EG	NN	GG	EE	EG
Isobutyl alcohol	EE	EE	EE	EG	EE	EE	EG	GN	EG	EE	GG	NN	EE	EE	EE
Isopropyl acetate	GF	EG	GF	GF	EE	EG	NN	NN	NN	—	NN	EE	GG	EE	EE
Isopropyl alcohol	EE	EE	EE	G	EE	EE	EE	GN	GF	EE	EG	NN	GG	EE	EE
Isopropyl benzene	FN	FN	FN	NN	EE	EG	NN	NN	NN	—	NN	EG	—	—	—
Kerosene	FN	FN	NN	GF	EE	GF	—	NN	GF	EE	NN	EE	EE	EE	EE
Lactic acid, 3%	EG	EE	E	EG	EE	EE	E	EG	EE	EG	EE	NN	GG	EE	EE
Lactic acid, 85%	G	EE	EG	EG	EE	EG	EG	GF	EE	GF	EE	NN	GG	EE	EE
Methoxyethyl oleate	EG	EE	EG	EG	EE	EE	FN	NN	NN	—	NN	EG	—	—	—
Methyl alcohol	G	EE	EE	G	EE	EE	GF	FN	EG	EE	GF	NN	EE	EE	EE
Methyl ethyl ketone	NN	NN	EG	NN	EE	GF	NN	NN	NN	NN	NN	EE	EE	EE	EE
Methyl isobutyl ketone	NN	NN	GF	FF	EE	GF	NN	NN	NN	GN	NN	EE	GG	EE	EE
Methyl propyl ketone	NN	FN	GF	FF	EE	EG	NN	NN	NN	NN	NN	EE	EE	—	—
Methylene chloride	N	FN	FN	FN	EE	GG	NN	NN	NN	NN	NN	GF	GG	EE	EE
Mineral oil	GN	EE	EE	EG	EE	EE	E	E	EE	EE	EE	EE	EE	EE	EE
Nitric acid, 1 to 10%	EE	EE	EE	EE	EE	EE	EG	F	FN	EE	GN	NN	EE	EE	EE
Nitric acid, 50%	F	F	FN	F	EE	EE	GF	FN	FN	EG	GF	NN	EG	EG	NN
Nitric acid, 70%	FN	N	NN	FN	EE	EE	G	N	NN	GF	NN	NN	GG	EE	NN
Nitrobenzene	NN	N	NN	F	EE	EG	NN	NN	NN	EN	NN	FF	GG	EE	EE
n-Octane	EE	EE	EE	EE	EE	EE	GF	N	GF	EE	NN	EE	EE	EE	EE
Orange oil	FN	GF	GF	FF	EE	EE	FF	N	FF	EE	NN	GF	EE	EE	EE
Ozone	GN	GN	EG	EE	EE	EE	NN	GF	EE	EE	FF	EG	EG	—	—
Perchloric acid	GN	GN	GN	GN	GF	EG	NN	N	NN	EE	GF	NN	FF	EE	EE
Perchloroethylene	NN	NN	NN	NN	EE	EE	NN	NN	NN	EE	NN	EE	EG	EE	EE
Phenol, crystals	F	GF	GN	FG	EE	EE	NN	FN	FF	EE	NN	NN	GG	EE	EE
Phosphoric acid, 1 to 5%	EE	EE	EE	EE	EE	EE	G	EE	EE	EE	GG	NN	NN	EE	EE
Phosphoric acid, 85%	N	EE	EG	EG	EE	EE	EG	F	EE	EE	EG	NN	NN	EE	EE
Pine oil	GN	FN	EG	GF	EE	EG	GF	N	FF	EE	NN	GF	EE	—	—
Potassium hydroxide, 1%	EE	EE	EE	EE	EE	EE	FN	EE	EE	EE	GG	FF	EG	GF	GF
Potassium hydroxide, conc.	EE	EE	EE	EE	EE	EE	F	EG	EE	EG	GF	FF	EG	NN	NN
Propane gas	NN	EE	NN	NN	EE	EE	FN	FN	FF	EE	NN	FF	GF	NN	NN
Propylene glycol	EE	EE	EE	EE	EE	EE	GF	GN	GG	—	EE	EE	GG	EE	EE
Propylene oxide	EG	EE	EG	EG	EE	FN	GF	FN	GG	FN	NN	EE	EE	—	—
Resorcinol, sat.	EE	EE	EE	EE	EE	EE	GF	N	NN	—	GF	NN	—	—	—
Resorcinol, 5%	EE	EE	EE	EE	EE	EF	GF	N	NN	—	GF	NN	—	—	—
Salicylaldehyde	EG	EE	EG	EG	EE	EN	GF	N	FF	EG	NN	EG	—	—	—
Salicylic acid, powder	EE	EE	EE	E	EE	EE	EG	GF	EE	EE	EE	EG	GG	EE	EE
Salicylic acid, sat.	EE	EE	EE	EE	EE	EE	EG	GF	EE	EE	EG	NN	GG	EE	EE
Salt solutions, metallic	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	GG	FF	EG	—	—
Silver acetate	EE	EE	EE	EE	EE	EE	EG	N	EE	EE	GG	EF	—	—	—
Silver nitrate	EG	EE	EG	EE	EE	EE	EG	EE	EE	EE	GF	NN	GG	EE	EE
Sodium acetate, sat.	EE	EE	EE	EE	EE	EE	EG	N	EE	EE	EE	FF	GG	EE	EE
Sodium hydroxide, 1%	EE	EE	EE	EE	EE	EE	F	EE	EE	EE	GG	EE	GG	GE	GE
Sodium hydroxide, 50% to sat.	GG	EE	EE	EE	EE	EE	F	NN	EG	EG	G	GF	GF	NN	NN
Sodium hypochlorite, 15%	F	G	N	EE	EE	EE	GF	FN	EE	EE	G	NN	NN	EE	EG
Stearic acid, crystals	EE	GG	EE	EE	EE	EE	EG	EG	GG	EE	EG	EF	EG	EE	EE
Sulfuric acid, 1 to 6%	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EG	NN	FN	EE	EG
Sulfuric acid, 20%	EE	EE	EG	E	EE	EE	EG	F	EE	EE	EG	NN	NN	EE	GG
Sulfuric acid, 60%	EG	G	GF	GF	EE	EE	GF	FN	EE	EE	EG	NN	NN	EE	NN
Sulfuric acid, 98%	GG	FN	FN	GF	EE	EE	NN	N	G	EG	NN	NN	NN	EE	NN
Sulfur dioxide, liq., 46 psi	NN	FN	NN	NN	EE	EG	GN	N	GG	EE	NN	NN	FN	NN	NN
Sulfur dioxide, wet or dry	EE	EE	EE	EE	EE	EE	EG	GN	GG	GE	FN	NN	FN	EE	EE
Sulfur salts	FN	GF	FN	FN	EE	EG	FN	G	GG	GF	NN	NN	—	—	—
Tartaric acid	EE	EE	EE	EE	EE	EE	EG	EG	EE	EE	E	EF	FF	EE	EE
Tetrahydrofuran	FN	FN	GF	FF	EE	EE	NN	NN	NN	FN	NN	EE	EE	EE	EE
Thionyl chloride	NN	NN	NN	NN	EE	EE	NN	NN	NN	—	NN	NN	NN	EE	EE
Toluene	FN	NN	NN	FF	EE	EE	NN	NN	NN	—	NN	EE	EE	EE	EE
Tributyl citrate	GF	EG	GF	GF	EE	EG	NN	N	FF	EF	NN	EG	—	—	—
Trichloroethane	NN	N	NN	NN	EG	NN	NN	NN	NN	—	NN	EE	GG	EE	EE
Trichloroethylene	NN	N	NN	NN	EE	EG	NN	NN	NN	EE	NN	EE	GG	EE	EE
Triethylene glycol	EE	EE	EE	EE	EE	EE	EG	GF	EE	—	EG	EE	—	—	—
Tripropylene glycol	EE	EE	EE	EE	EE	EE	EG	FN	EE	—	EE	EE	—	—	—
Turpentine	FN	FN	FN	NN	EE	EE	FN	FN	NN	EE	NN	EE	EE	EE	EE
Undecyl alcohol	EF	EG	EG	EG	EE	EG	GF	GF	FF	EE	GG	EE	—	—	—
Urea	EE	EE	EE	EG	EE	EE	GF	GN	FF	EE	EG	EE	GG	EE	EE
Vinylidene chloride	NN	FN	NN	NN	EE	GF	NN	NN	NN	EE	NN	NN	GG	—	—
Xylene	N	FN	FN	FN	EE	EG	NN	NN	NN	EE	NN	EE	GG	EE	EE
Zinc stearate	EE	EE	EE	EE	EE	EE	GN	EE	EE	EE	EE	EE	EE	EE	EE



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Test the labware for 72 hours under expected or proposed conditions of use, BEFORE putting into service.  
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