

Managing costs through LEAN process methodology  
and support  
**Pages 16-17**



# Efficiency is the key to a successful lab or production operation

You want to reduce costs, simplify equipment and instrument services management, improve regulatory compliance – all while ensuring that everyone stays focused on their tasks and priorities. This challenge can easily become overwhelming.

Fortunately, we have the resources and expertise to help you overcome these obstacles. Our goal is to help you reduce complexity so that you can focus on your core priorities.

Visit [vwr.com/cms/industrial](https://www.vwr.com/cms/industrial) to learn more!



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# Reduce the risk of human error and sample contamination

For more information on the Sterileware line, visit **VWR.COM** keyword: Sterileware

## SP SCIENCEWARE STERILEWARE® LIQUID & POWDER THIEVES EASILY PULL SAMPLES OF LOW VISCOSITY LIQUIDS & BULK POWDERS

- Made from FDA and EU conforming materials; safe for food, drugs and cosmetic use
- Gamma irradiated sterile (SAL 10<sup>-6</sup>)
- Shipped with a Certificate of Processing for Sterilization
- Lot stamped for accurate tracing

Description	Size	Cat. No.	Pack of
Sterileware Powder Thief	1 ml	76402-906	20
Sterileware Powder Thief	5 ml	76402-908	20
Sterileware Powder Thief	10 ml	76402-910	20
Sterileware Powder Thief	20 ml	76402-912	20
Sterileware Powder Thief	1 ml	76402-914	20
Sterileware Powder Thief	5 ml	76402-916	20
Sterileware Powder Thief	10 ml	76402-918	20
Sterileware Powder Thief	20 ml	76402-920	20
Sterileware Liquid Thief Sampler	100 ml	76402-902	20
Sterileware Liquid Thief Sampler	190 ml	76402-904	20



**NEW**



## FLOCKED NYLON SAMPLING SWABS MICROBIAL SAMPLE COLLECTION

Flocked nylon fibers draw fluid into the swab through capillary action, allowing for efficient sample collection. In addition, the flocked swab lacks the spun-fiber core of traditional swabs, leading to higher sample yields.

Description	Cat. No.	Pack of	Case of
Nasopharyngeal Swab (NP), Flocked Nylon	76420-240	100	5000
Oropharyngeal Swab (OP), Flocked Nylon	76420-238	100	5000



## FLOCKED NASOPHARYNGEAL SPECIMEN SWABS RAPID AUTOMATIC ELUTION

Flocked swabs efficiently collect vital patient samples using perpendicular nylon fibers that act like a soft brush to allow improved collection of cell samples.

- Instant and spontaneous release into liquid media
- Improve sample collection with the brush-like texture that rapidly and efficiently dislodges cells and collects liquid
- Quantitative volume transfer

Description	Overall length	Tip width	Cat. No.	Case of
Flocked nasopharyngeal specimen swabs	151 mm	3 mm	76422-824	5000

# Automate colony counting with The Wizard!

## COMPACTDRY™ PLATES AND THE WIZARD™

### DESIGNED EXCLUSIVELY FOR THE COMPACTDRY™ PLATE LINE!

- Create consistency from tech to tech with automation your team can rely on
- Increase daily throughput by automating the tedious task of colony counting
- Standardize your testing procedures

Colony counts in seconds – where it would usually take hours to complete all of the colony counts associated with food testing, The Wizard CompactDry Reader will take just seconds. This saves your technicians valuable time in their testing processes. The Wizard CompactDry Reader's software was built to identify colony formation on each of the individual CompactDry plates. The CompactDry plate line presents a variety of organism-specific or total count tests, packaged neatly in a sophisticated and sturdy cassette.



Description	Cat. No.	Unit
Wizard CompactDry Reader	76177-196	Each



# Disposamplers for the highest standards in sampling

SAVE 30%

## LABOPLAST® AND STERIPLAST® POWDERDISPO

### FOR A LIMITED TIME GET SPECIAL SAVINGS!

Unlike conventional reusable samplers, disposable samplers do not need to be cleaned after use and therefore save time, money, and eliminate the risk of cross contamination completely.

- Ideal sampler for cross-section samples of powdery or slightly cohesive substances
- Cleanroom manufactured HDPE
- Individually packaged

Disposable Samplers	Volume	Length	Sterile	Cat. No.	Pack of 20
PowderDispo LaboPlast	60 mL	300 mm	No	MP10821-289	125.61
PowderDispo LaboPlast	100 mL	500 mm	No	MP10821-323	146.00
PowderDispo SteriPlast	60 mL	300 mm	Yes	MP10821-291	145.34
PowderDispo SteriPlast	100 mL	500 mm	Yes	MP10769-582	162.61



No redemption is required, simply use these special MP catalog numbers when placing your order. They are available for a limited time, must be used at time of purchase, and may be ordered via the "ORDER ENTRY" link on [vwr.com](http://vwr.com). (Promotional part numbers cannot be found via search on [vwr.com](http://vwr.com).) For assistance with ordering, contact VWR Customer Service or 800 932 5000. **Promo Code 5564.** Offer expires 12.31.2020.

# Dependable protection for your hands

Keep your hands dry while working with liquids with FlexTech Y9290 and Y9289 gloves!

## FLEXTECH™ NITRILE INDUSTRIAL CUT-RESISTANT GLOVES

- Fully dipped glove with cut and puncture resistance
- Great glass washing glove
- Full NBR coating protects against liquids
- Sandy nitrile-coated palm and fingertips for enhanced grip
- ANSI 4 cut and puncture resistance



Y9290

Y9290 Glove Size	Cat. No.	Pack of
Small	10859-872	12
Medium	10859-874	12
Large	10859-876	12
X-Large	10859-878	12
2X-Large	10859-880	12

## FLEXTECH™ LIGHTWEIGHT SYNTHETIC KNIT GLOVES WITH DOUBLE NBR COATING

- Fully dipped glove
- Excellent flexibility and dexterity
- Sandy Nitrile coated palm and fingertips for enhanced grip
- ANSI A1 cut resistance



Y9289

Y9289 Glove Size	Cat. No.	Pack of
X-Small	75836-500	12
Small	75836-502	12
Medium	75836-540	12
Large	75836-542	12
X-Large	75836-544	12
2X-Large	75836-546	12

## FLEXTECH™ CUT RESISTANT HIGH PERFORMANCE POLYETHYLENE FIBER GLOVES

- General purpose cut resistant glove with grip
- Polyurethane palm for grip
- Launderable
- Protection in many different applications
- ANSI A2 cut resistance



Y9265

Y9265 Glove Size	Cat. No.	Pack of
X-Small	89030-788	12
Small	89030-790	12
Medium	89030-792	12
Large	89030-794	12
X-Large	89030-796	12
2X-Large	75836-536	12

Color: gray (also available in white; visit [vwr.com](http://vwr.com))

## COTTON LISE INSPECTION GLOVES

- Inspection liner to wear by itself or underneath disposable gloves
- 100% cotton construction
- Single use gloves are lightweight and biodegradable
- Absorbs moisture and improves comfort
- Women's (medium) and men's (large) sizes available



Y6701

Y6701 Glove Size	Cat. No.	Pack of	Case of
Medium	32935-461	12	1200
Large	32935-460	12	1200

## KELKLAVE AUTOCLAVE GLOVES

- Protect your hands from heat when using autoclaves
- Protects up to 250°F
- 5" or 11" versions
- Loop out terry cloth construction



422

422 Glove Size	Length	Cat. No.	Pack of
Large	12.7 cm (5")	80091-460	Pair/Pk. 12
Large	28 cm (11")	80091-458	Pair/Pk. 12



# Dependable protection across a variety of applications

Meets ASTM F1670 and ASTM F1671 tests, offering bloodborne pathogen protection



Tychem® 2000

## MULTI-HAZARD TYCHEM® FABRIC TECHNOLOGY

USE FOR PETROLEUM REFINING, PULP AND PAPER MANUFACTURING, FOOD PROCESSING, CHEMICAL PROCESSING, PHARMACEUTICAL MANUFACTURING, AND MORE

Tychem® 2000 utilizes the strength of DuPont™ Tyvek® fabric and a polyethylene coating. Lightweight and durable, Tychem® 2000 fabric provides at least 30 minutes of protection against 42 chemical challenges.

Tychem® 2000 SFR garments provide chemical and secondary flame protection in a lightweight garment. Tychem® 2000 SFR garments are intended to be worn over primary flame resistant garments, like DuPont™ Nomex®.



Tychem® 2000 SFR

Size	Cat. No.	Case of
<b>Tychem® 2000 Hooded Coveralls</b>		
MD	10010-252	12
LG	10010-254	12
XL	10010-256	12
2X	10010-258	12
3X	10010-260	12
4X	10010-262	12
5X	10016-404	12
6X	10016-406	12
<b>Tychem® 2000 SFR Hooded Coveralls</b>		
SM	76202-702	4
MD	76202-704	4
LG	76202-706	4
XL	76202-708	4
2X	76202-710	4
3X	76202-712	4
4X	76202-714	4
5X	76202-716	4
6X	76202-718	4
7X	76202-720	4

Additional styles available on [vwr.com](http://vwr.com).

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# Motion-activated, touchless gel dispenser



## SANITIZER STAND AND DISPENSER

- Indoor/outdoor stand and dispenser
- Heavyweight, free-standing design with powdercoated base
- Universal mounting plate with theft-resistant screws or double-sided tape (not included)
- Dispenser includes a refillable plastic bottle (1000 ml capacity)
- Requires 4 C' batteries (not included)

Description	Cat. No.	Unit
Sanitizer Stand and Dispenser	470327-948	Each
Sanitizer Stand Only	470327-950	Each
Sanitizer Dispenser Only	470327-952	Each



# Outstanding hand protection



solutions for every day use

## VWR® NITRILE CHEMICAL SAFE GLOVES

VWR® Nitrile Chemical Safe Gloves are specially formulated with a nitrile compound that provides outstanding protection against a wide range of chemicals, including most solvents and acids, strong detergents, greases, oils, and animal fats.

- 15 mil (0.38 mm) thickness
- 13 (330 mm) length"
- Fully textured
- Flock lined
- Exceptional flexibility and comfortable to wear

Gloves feature a patterned palm for excellent grip in both wet and dry conditions. Resistance against abrasion, cuts, snags, and puncture, ensures longer wear and better protection than natural rubber gloves.

**Certifications:** Gloves comply to European standards EN388, EN ISO 374-1 Type A & EN ISO 374-5. Certified to CE category 3 for complex risks.



Size	Cat. No.	Pack of	Case of
Small	76359-820	12	144
Medium	76359-822	12	144
Large	76359-824	12	144
X Large	76359-826	12	144
XX Large	76359-828	12	144



# Help stop the spread of COVID-19

## COVID-19 SAFETY POSTERS

### COMMUNICATE THE IMPORTANCE OF SAFETY PROCEDURES AND PRACTICES THROUGHOUT THE WORKPLACE

- Printed with bright, colorful words and graphics
- Laminated on both sides
- Easy to clean, posters will retain colors for years

Help educate personnel to protect themselves, to keep the workplace safe, and to help stop the spread of COVID-19 Coronavirus Disease by following the tips and preventative measures outlined on these posters. Inform the workplace on how to prevent contamination and promote good hygiene throughout any facility. Avoid the spread of germs by posting in key locations to provide a daily reminder.



Description	Height	Width	Cat. No.	Unit
COVID-19 Safety Poster, Preventative Measures	22"	17"	76411-550	Each
COVID-19 Safety Poster, Help Stop the Spread	22"	17"	76411-552	Each
COVID-19 Safety Poster, Keep the Workplace Safe	22"	17"	76411-554	Each



# Multilayered contamination control

solutions for protection

## VWR® PURESTEP ADHESIVE MATS

### TRADITIONAL AND NON-TRADITIONAL MULTILAYERED CONTAMINATION CONTROL

Mats consist of 30 or 60 sheets of 1.5 mil low-density polyethylene film. Each sheet has a 0.3 mil thick acrylic-based, pressure-sensitive adhesive coating.

Effective contamination control in cleanrooms and labs, as well as high-traffic areas for customers such as:

- Hospitals
- Warehouses
- Food & beverage
- Academic
- Industrial applications

Non-traditional areas include, but are not limited to:

- Entrances/exits to restrooms
- Locker rooms
- Break rooms/vending areas
- Offices



Visit [VWR.COM](http://VWR.COM) and search "VWR PureStep Adhesive Mats" for all options.

# Can be used wet or dry

## VWR® PRODUCTION STRING MOPS

Absorbent and economical, and with three fabric choices there is a production string mop for every type of manufacturing site, from semiconductor and pharmaceutical to food and beverage.

- Polyester Microfiber String Mops feature 100% micro denier polyester looped strands with very low particle levels
- Tufted Microfiber String mops feature durable 80% polyester, 20% polyamide looped strands
- Polycellulose string mops feature 50% polyester, 50% cellulose flat strands – an economical, clean alternative to cotton or yarn mops

Ideal for large surface areas, and excellent at cleaning around tank or work center table legs. Use with standard string mop handles, such as 68400-002 and 68400-202, or with stainless steel handle, 68400-304.

**NEW**



String Mops	Material	Color	Cat. No.	Pack of	Case of
Polyester Microfiber	Microfiber: 100% Microdenier Polyester	White	89214-778	-	24
Polyester Microfiber, Irradiated	Microfiber: 100% Microdenier Polyester	White	76220-938	-	24
Tufted Microfiber	Microfiber: 80% Polyester/20% Nylon	Blue	76382-804	2	36
Polycellulose	Polycellulose: 55% Polyester/45% Cellulose	White	76382-806	1	12

Stop the risk of cross-contamination – no rinsing required!



## HAND SANITIZER, 80% ALCOHOL

- Made in accordance with the World Health Organization (WHO) formulation
- Produced with zero nonessential additives
- Unscented

This hand sanitizer is made following FDA/WHO guidelines with 80% alcohol content to kill 99.9% of bacteria, germs and viruses. No rinsing or drying is required, making each application fast and easy.



Description	Volume	Container Type	Scent	Cat. No.	Unit
Liquid Hand Sanitizer, 80% Alcohol	1 gal.	Bottle	Unscented	76415-416	Each

Not available for sale into California.



## solutions for protection

### VWR® STRIP WASHBLOCKER

Use this low-profile spill dike for routine containment of washdown and sanitizing liquid. Tacky urethane construction creates a leakproof seal on dry floors. Tear-resistant polypropylene top withstands repeated use.

- Tacky urethane construction
- Tear-resistant polypropylene top
- Low-profile design
- Reusable and cleans up with soap and water
- Highly visible bright green color
- For smooth surfaces

Block doorways, protect carpeting, and channel liquid to drains



Description	Cat. No.	Unit
Strip Washblocker	10147-836	Each

# Providing comfort and protection

## solutions for protection

### VWR® CHEMICAL SPLASH GOGGLES

Wide vision goggles provide high levels of comfort and maximum splash protection.

- Wrap around modern style provides excellent panoramic vision
- Fits most facial contours
- Comfortably fits over most prescription glasses
- Indirect ventilation
- Anti-scratch and anti-fog lens coating



Frame Material	Lens Material	Cat. No	Pack of	Case of
PVC	Polycarbonate	75982-628	10	120

# Workplace safety essentials

## solutions for protection

### VWR® 50 PERSON FIRST AID KITS, ANSI A+, TYPE III

These 50 person bulk first aid kits are ideal for contractors, fleet vehicles, worksites, and small companies with up to 50 employees.

- Weatherproof, wall-mountable case
- 183 pieces - visit [vwr.com](http://vwr.com) for complete list of kit contents
- Available in a metal or plastic case
- ANSI/ISEA Z308.1-2015

**Certifications:** Meets OSHA and ANSI standards. ANSI/ISEA Z308.1-2015. Exceeds the 2015 ANSI Class A requirements. Sufficient to treat 50 or more people.

Description	Dimensions	Pieces	Cat. No.	Unit
50 Person Bulk Metal First Aid Kit, ANSI A+, Type III	9.75 x 10 x 2.62"	183	76049-038	Each Case of 6
50 Person Bulk Plastic First Aid Kit, ANSI A+, Type III	9.1 x 9.1 x 2.75"	183	76049-054	Each Case of 6

These products are not available in Canada. Please contact your VWR sales representative to learn about similar options in your region.



Visit [VWR.COM](http://VWR.COM) for kit contents

US ONLY

# Traceable to NIST Standards reference materials

## pH REFERENCE STANDARD BUFFERS

**BDH pH BUFFERS ARE AVAILABLE AS EITHER  
COLORLESS OR COLORED SOLUTIONS**

- Calibrated in an ISO 17025 certified laboratory using certified Standards
- Store at room temperature

**Ordering information:** Buffer set BDH5100-PK comes with two 500 mL bottles each of the pH 4.00 red buffer, pH 7.00 yellow buffer, and pH 10.00 blue buffer.

Visit **VWR.COM**  
to find many  
additional  
options!



Size	pH Value	Color	pH Accuracy	Standard Reference Materials No.	Cat. No.		Unit
500 mL (16.9 oz.)	1.00	Colorless	±0.01	185, 186	<b>BDH5002-500ML</b>	Each	Case of 12
500 mL (16.9 oz.)	4	Red	±0.01	185, 186	<b>BDH5018-500ML</b>	Each	Case of 12
500 mL (16.9 oz.)	7	Yellow	±0.01	186, 191, 192	<b>BDH5046-500ML</b>	Each	Case of 12
500 mL (16.9 oz.)	10	Blue	±0.01	186, 191, 192	<b>BDH5072-500ML</b>	Each	Case of 12
500 mL (16.9 oz.)	Buffer Set	Assorted	±0.01	-	<b>BDH5100-PK</b>	Pack of 6	-

Featured buffers come in poly bottles.

# Unsurpassed reproducibility, consistency, and application optimization

## J.T.BAKER CHEMICALS

J.T.Baker® brand chemicals are synonymous with quality for over a century and are the brand of choice for a wide range of applications.



Description	Size	Packaging	Cat. No.		Unit
Acetonitrile ≥99.9% (by GC), BAKER ANALYZED® HPLC, Ultra Gradient for HPLC/UHPLC, for spectrophotometry	4 L	Amber Glass Bottle	<b>JT9017-3</b>	Each	Case of 4
Methanol ≥99.9% (by GC, corrected for water content), BAKER ANALYZED™ HPLC for liquid chromatography, for HPLC/UHPLC, for spectrophotometry	4 L	Clear Glass Bottle	<b>JT9093-3</b>	Each	Case of 4
Water, BAKER ANALYZED® HPLC for HPLC/UHPLC, for spectrophotometry	4 L	Amber Glass Bottle	<b>JT4218-3</b>	Each	Case of 4
Nitric acid 67 - 70%, ULTREX® II, ultrapure for trace metal analysis, for trace metal analysis	500 ml	Fluoropolymer Bottle	<b>JT6901-5</b>	Each	-
Nitric acid 69.0 - 70.0%, BAKER INSTRA-ANALYZED® for trace metal analysis	2.5 L	Mall Clear PVC Coated Glass Bottle	<b>JT9598-34</b>	-	Case of 4

# Special offer from MilliporeSigma

**MILLIPORESIGMA ADVANCED ANALYTICS PRODUCTS**  
**BUY A MINIMUM OF \$750 IN MILLIPORESIGMA ADVANCED ANALYTICS PRODUCTS - ANY SOLVENTS, INORGANICS OR CHROMATOGRAPHY PRODUCTS\*, AND WE'LL MATCH YOUR PURCHASE\*\* WITH FREE PRODUCT!**

- Purchase order must be between \$750 and \$2000
- Fill in the online form before December 31, 2020, and be sure to indicate all free product you wish to order
- All product must be purchased on the same order
- Limit one redemption per customer
- Free product will be shipped separately from initial order
- Please allow 8 weeks for delivery of your free product

Order your MilliporeSigma Lab Essentials products between July 1, 2020 and December 31, 2020. You can purchase your products by visiting [vwr.com](http://vwr.com), calling 800 932 5000, or contacting your Avantor sales representative.

\*MilliporeSigma BioScience products such as Calbiochem®, OmniPur® and Novagen® are NOT eligible for this offer.

\*\* Value of free product will be based on list price with a cap of \$2000. Free product may not exceed purchased amount.

To redeem for your free product, visit [vwr.com/promotions](http://vwr.com/promotions) and search **Promo Code 4169**. Offer expires 12.31.2020.



UP TO  
\$2000  
VALUE

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.

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# Chemicals for R&D and production

Visit  
[vwr.com/tciamerica](http://vwr.com/tciamerica)  
to find our complete  
portfolio

## CHEMICALS FOR R&D AND PRODUCTION WHEN QUALITY AND CONSISTENCY MATTER, COUNT ON TCI FOR YOUR NEXT PROJECT

Synthetic organic, inorganic, standards, and other fine chemicals.

- Every lot quality tested to specifications, ensuring consistent, repeatable results
- Custom synthesis/packaging, and bulk solutions also available
- Thousands of unique and hard-to-find compounds + everyday needs
- Scientific sales team to assist with questions and technical advice

Our specialty organic and inorganic chemicals and intermediates are recognized as best-in-class by top research labs, universities and manufacturers. We offer hard-to-find and hard-to-synthesize products in laboratory quantities as well as bulk quantities.



**Alfa Aesar**

# Fine catalysts for your research applications

## EXPLORE THE ALFA AESAR PORTFOLIO OF METAL CATALYSTS WE OFFER A FULL RANGE OF METAL CATALYSTS IN VARYING PURITIES AND CONCENTRATIONS

Our fine transition metal and precious metal catalysts are used extensively in the research laboratory and in industrial processes, in areas as varied as pharma/biopharma, petrochemicals, fuel cells, and environmental remediation.

Description	Size	Cat. No.	Unit
<b>Homogeneous Catalysts</b>			
Ammonium tetrachloroplatinate(II), 99.9% (metals basis), Pt 51% min	1g	AA11046-03	Each
Palladium(II) chloride, 99.9% (metals basis), Pd 59.0% min	10g	AA11034-09	Each
Ruthenium(III) nitrosylnitrate, Ru 31.3% min	5g	AA12175-06	Each
Tetrakis(triphenylphosphine)palladium(0), 99.8% (metals basis), Pd 9% min	10g	AA10548-09	Each
Potassium tetrachloroplatinate(II), 99.9% (metals basis), Pt 46.0% min	5g	AA11048-06	Each



[VWR.COM/ALFA](http://VWR.COM/ALFA)

Description	Size	Cat. No.	Unit
<b>Heterogeneous Catalysts</b>			
Nickel on silica-alumina, catalyst	5g	AA31276-06	Each
Palladium, 10% on activated carbon powder, Type 58, standard, reduced, nominally 50% water wet	5g	AA44350-06	Each
Platinum, 5% on alumina powder, reduced	5g	AA44222-06	Each
Ruthenium, 2% on 3.18mm (0.125in) alumina pellets	25g	AAA44575-14	Each
Ruthenium, 5% on alumina powder	100g	AA11749-22	Each
<b>Electro Catalysts</b>			
Iridium(IV) oxide 50%	5g	AAAA04749106	Each
Platinum, nominally 10% on carbon black	5g	AAAA04735706	Each
Platinum, nominally 18%, cobalt, nominally 1%, nickel, nominally 1% on durable carbon support	5g	AAAA04733206	Each
Platinum, nominally 27%, cobalt, nominally 3% on Vulcan XC72 Carbon	5g	AAAA04739506	Each
Platinum-ruthenium black, 67:33	5g	AAAA04739906	Each



# Accurate brewing analyses



## COMPLIANT BREWING METHODS WITH THE HACH DR6000 SPECTROPHOTOMETER

ASBC and MEBAK Brewing Methods Software.

Compliance and consistent high quality are two of the key goals within the beverage industry. Hach® provides support for these goals through comprehensive analyses of water and beer.

The DR6000™ UV-VIS Spectrophotometer supports many of the analytical measurements necessary for monitoring throughout the entire brewing process - from raw materials to final product. The DR6000 brewing-specific software has been expanded

to include the most important parameters from both MEBAK and the American Society of Brewing Chemists (ASBC). This means that the DR6000 can be used to measure beer quality around the globe.

The parameters included in the DR6000 Brewing Package include: Bitterness, Color, Iso- $\alpha$  and  $\beta$ -acids, Free Amino Nitrogen (FAN), Polyphenols, Thiobarbituric Acid Number (TAN), Vicinal Diketones (VDK), Anthocyanogens, Iodine Value, and Iron.

For more information go to [vwr.com/hach](http://vwr.com/hach).

Description	Electrical	Cat. No.	Unit
DR6000 Benchtop Spectrophotometer with RFID Technology	100-240 V, 50/60 Hz	75998-064	Each
Application Software Brewery Analysis	-	89409-716	Each



# Managing costs through LEAN process methodology and support

By Avantor Services

Understanding sources of waste in daily and routine processes can uncover hidden costs. Particularly challenging areas for many organizations are the sourcing, tracking, and supervising the management of chemical materials.



The results of poorly managed chemical inventory can be felt across an organization, with considerable impact to productivity and finances. Inconsistent oversight of chemical materials creates obstacles and risks for researchers, production, EHS, quality and regulatory functions.

Time is valuable and process delays are costlier than ever. With project timelines increasingly condensed, identifying waste and other inefficiencies help achieve annual goals and deliverables.

To help you operate most efficiently, key questions to ask yourself include:

- Have you recently changed your way of working?
- Are your chemicals expired or unavailable when needed?
- Are your daily tasks interrupted by chemical management activities?
- Has chemical maintenance been delayed?
- Do you need help with the inventory of chemicals?

- Do you frequently waste expired materials?
- Do you struggle with maintaining flammable levels?
- Was your budget reallocated?
- Do you spend time preparing for audits?
- Have you inherited your chemical inventory?
- Are there multiple chemical management processes?

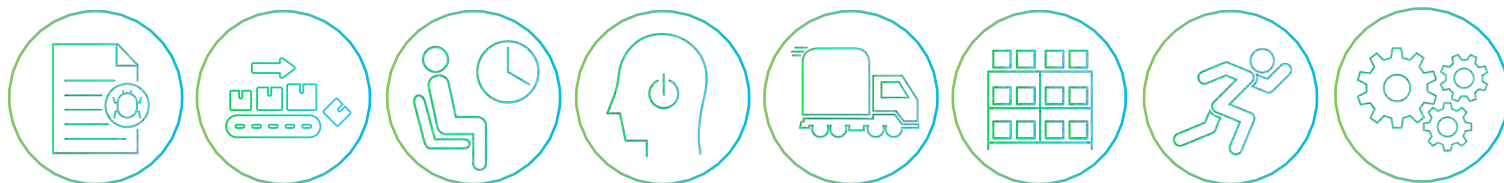
The answers to these questions present many challenges throughout industry. Working with our customers, Avantor has resolved such concerns deploying a LEAN methodology to identify gaps, create visibility, and provide flexible support solutions.

#### RESULTING BENEFITS

- process efficiency gains
- increased compliance
- waste reduction
- reduced costs
- increase space for scientific activities
- increased speed to market



AREAS OF WASTE MOST OFTEN IDENTIFIED



Area of Waste	Description	Researchers	Production	EHS	Quality	Regulatory
Defect	Rework, errors, incorrect documentation, product recalls	✓	✓	✓	✓	✓
Overproduction	Making more than is immediately required		✓			
Waiting	For parts, information, instructions	✓	✓	✓	✓	
Underutilized talent	Not utilizing all capabilities, performing non-value add work	✓				
Transportation	Moving reports and other information	✓	✓	✓		
Inventory	Storing more than necessary, expired material on shelf	✓	✓	✓		
Motion	Searching, checking, preparing for audit	✓	✓	✓	✓	
Excess processing	Exceeding requirements to ensure compliance			✓	✓	✓

LESS WASTED RESOURCES

Developing a systemic approach to reducing waste has a positive impact on multiple areas of your organization:

- **Researchers** focus on science instead of spending their time finding chemicals, solvents, and raw materials required for their daily lab operations. This can eliminate costly research delays and keep projects on task.
- **Production** eliminates bottlenecks and downtime caused by missing and expired materials.
- **EHS** has a better understanding of on-hand inventory and regulatory compliance needed, ensuring the right chemicals and reagents are where they need to be, when they need to be there.
- **Quality** ensures chemicals are within their lifespan of use, maintaining the integrity of your research and minimizing waste due to expiration.
- **Regulatory** establishes strong waste management protocols and enhances regulatory compliance.

As your trusted, collaborative partner, Avantor Services helps you increase efficiency, maximize productivity, and accelerate

innovation. Our experts have the breadth of knowledge and experience to tackle challenges across multiple workstreams, enabling you to focus on your research outcomes. Key areas of expertise include:

- Sourcing and specialty procurement
- Consumable inventory management
- Lab design and development
- Lab and production support
- Equipment services and calibration
- Facility and logistics support
- Digital solutions
- Clinical trial solutions
- Custom and commercial kitting
- Biorepository and archiving services

To get support for your business challenges, contact your local Avantor Sales Representative, visit us at [vwr.com/avantorservices](http://vwr.com/avantorservices), or email us at [services@avantorsciences.com](mailto:services@avantorsciences.com).



solutions for reliability

**VWR® SERIES REFRIGERATOR**

Providing security and comfort for everyday laboratory needs, these units are ideal for the demanding requirements of daily use in research, clinical and industrial laboratories storing reagents, media, proteins, and samples used daily in the lab.

EPA SNAP compliant natural refrigerants and made in the USA in a zero-waste-to-landfill facility



Capacity	Temperature Range	Electrical	Cat. No.	Unit
27 cu. ft.	2 to 10°C; 5° Setpoint	115 V	76314-012	Each



solutions for precision

**VWR® A-SERIES LEGAL-FOR-TRADE (NTEP) BALANCES WITH CALIBRATION CERTIFICATE**

Balances with NTEP certification and calibration certificate provide legal-for-trade certification and calibration. These Class I (d=0.1 mg) and Class II (d=0.001 g and 0.01 g) balances offer the highest precision in legal-for-trade applications.

- Internal calibration
- 2xRS232 and USB (A and B) communication interfaces
- Five-year warranty



Model	Capacity	Linearity	Pan Size	Readability	Repeatability	Cat. No.	Unit
VWR-2102AC.N/C	2100 g	±0.02 g	19.5x19.5 cm	0.01 g	0.01 g	76378-398	Each
VWR-4502AC.N/C	4500 g	±0.02 g	19.5x19.5 cm	0.01 g	0.01 g	76378-400	Each

Feature models don't include draft shield; visit vwr.com for additional options.



solutions for reliability

**WARD'S® AUTOMATIC AUTOCLAVE SERIES**

**BENCHTOP STERILIZATION**

- Rapid, complete sterilization for educational/research use
- Built-in water tank doesn't require external water supply
- Safety interlocks prevent door from opening while pressurized
- Stainless steel sterilization chambers



Units offer three preset standard cycle options, for sterilization of liquids, wrapped instruments or unwrapped instruments/plastic ware. A fourth option "Dry Only" is also available for additional drying time to be added to the end of a cycle.

Description	Electrical	Capacity	Cat. No.	Unit
BioClave Mini	115 V, 50-60 Hz, 950 W	8 L	470230-596	Each
BioClave 16	115 V, 50-60 Hz, 1600 W	16 L	470230-598	Each
BioClave 28	200/240 V, 50-60 Hz, 2300 W	28 L	470318-946	Each



Sterilize and decontaminate plates and small tools

solutions for reliability

**VWR® UV CROSSLINKER**

The VWR® Crosslinker's overhead 254nm UV is used not only for attaching nucleic acids to a membrane, but also for sterilization and decontamination of plates, small tools, etc.

- Pull out drawer for easy sample placement
- Door window blocks UV radiation but still allows observation
- Five 8-watt 254nm ultraviolet tubes for uniform overhead UV illumination

Description	Voltage	Cat. No.	Unit
UV Crosslinker	115V	89131-484	Each
UV Crosslinker	230V	89131-486	Each



## solutions for precision

### VWR® EXTRA-LARGE LCD DIGITAL STOPWATCH

Ideal for routine quality control and experimental needs of labs, and for the exacting demands of timing industrial tests, enzyme analysis, or research results. Memory permits display of times after the event is over.

- Traceable®
- Quartz-crystal design
- Large 1 cm (13/32") LCD readout is visible indoors or outdoors
- Powerful battery provides four years of continuous use



Description	Cat. No.	Unit
Single-Line Display	62379-218	Each



Ideal for wastewater, water quality, and environmental applications

## solutions for precision

### VWR TRACEABLE® DIGITAL PH/ORP METER

Easy-to-operate, always-ready unit quickly recalls exact date and time when minimum and maximum temperatures occur. Audible and visual alarm feature provides alert when temperature rises above or falls below two set points. Alarm is programmable in 1 degree increments.

- Extremely accurate
- Simply dip into solution and read pH or ORP



Description	Cat. No.	Unit
Traceable® pH/ORP Meter	10530-802	Each

# Alternatives to tap-water cooling

## solutions for reliability

### VWR® BENCHTOP CHILLERS

- Environmentally friendly and economical
- Compact, space-saving design
- Integrated safety features
- Cools at ambient temperatures as high as 35°C

The top-mounted fill port with spill protection cup prevents damage from potential spills when filling. The front-mounted easy-access air filter keeps the chiller running at peak efficiency.

Unique design maximizes bench space without compromising cooling and pumping power



Features include large easy-to-read LED displays and cooling at ambient temperatures as high as 35°C.

### MM Series Chillers, -5 to 50°C, 1/10 HP

Description	Cooling capacity	Max. pressure	Flow rate	Cat. No.	Unit
1/10 HP Chiller, Centrifugal Pump	130 W at -5°C,	5.1 psi (0.4 bar)	2.1 gpm (7.9 L/min.)	97058-200	Each
	215 W at 0°C,				
	320 W at +10°C,				
	460 W at +20°C,				
	520 W at +40°C,				
550 W at +50°C					

Description	Cooling capacity	Max. pressure	Flow rate	Cat. No.	Unit
1/10 HP Chiller, Centrifugal Pump	115 W at -5°C,	14.5 psi (1.0 bar)	3.5 gpm (13.2 L/min.)	97058-204	Each
	195 W at 0°C,				
	305 W at +10°C,				
	435 W at +20°C,				
	505 W at +40°C,				
535 W at +50°C					

LS Series Chillers (-20 to 40°C, 1/2 HP) and LM Series Chillers (-10 to 30°C, 1/3 HP) are also available; visit [vwr.com](http://vwr.com).



solutions for precision

**VWR® UNIVERSAL LOW RETENTION PIPET TIPS, FILTERED**

Tips use a low retention resin that is up to ten times more hydrophobic than other polypropylene pipet tips, enabling viscous samples like protein and DNA solutions to dispense easily without collecting inside the tip.



Compatible with the widest range of pipets - visit [VWR.COM](http://VWR.COM) to find many additional options!

Description	Size	Cat. No.	Pack of	Case of
Pipet Tips, ST	200 µl	76322-150	960	4800
Pipet Tips, LTS	200 µl	76322-160	960	4800

Tips are racked, filtered, and sterile.



solutions for precision

**VWR® LTS™ COMPATIBLE PIPETTORS AND PIPET TIPS**

- Compatible with VWR LTS Compatible Pipet Tips and Rainin® LTS™ Pipet Tips
- Lighter springs give a more comfortable and controlled draw and dispense
- The ejector is cushioned to reduce dynamic stress on your thumb
- Hitting the positive stop ensures that you've made a secure seal



**VWR® LTS Compatible Pipettors**

Description	Cat. No.	Unit
2 µL	76335-568	Each
10 µL	76335-570	Each
20 µL	76335-572	Each
100 µL	76335-742	Each
200 µL	76335-744	Each
300 µL	76335-746	Each
1000 µL	76335-748	Each

Visit [vwr.com](http://vwr.com) for multichannel options.

**VWR® LTS Compatible Pipet Tips**

Volume	Packed	Cat. No.	Pack of
<b>Racked, Filtered, Sterile</b>			
0.1 - 20 µL	10x96 Tips/Pack	76322-158	960
<b>Racked, Non-Filtered, Sterile</b>			
0.1 - 20 µL	10x96 Tips/Pack	76323-944	960
<b>Racked, Non-Filtered, Nonsterile</b>			
0.1 - 20 µL	10x96 Tips/Pack	76323-936	960

Visit [vwr.com](http://vwr.com) for additional sizes.



solutions for every day use

**VWR® DISPOSABLE CULTURE TUBES**

- Resistant to chemical attack and weathering
- Contents will not leach out and contaminate solutions
- High heat tolerance and uniform dimensions
- Convenient dispensing packages



O.D. x L	Overflow Volume	Cat. No.	Case of
10 x 75 mm	3 ml	47729-568	1000
12 x 75 mm	5 ml	47729-570	1000
13 x 100 mm	9 ml	47729-572	1000
15 x 85 mm	10 ml	47729-574	1000
16 x 100 mm	14 ml	47729-576	1000
16 x 125 mm	18 ml	47729-578	1000
16 x 150 mm	22 ml	47729-580	1000
18 x 150 mm	28 ml	47729-583	500
19.5 x 150 mm	34 ml	47729-584	500
25 x 150 mm	60 ml	47729-586	500
6 x 50 mm	0.75 ml	47729-566	2000



solutions for everyday use

**VWR® BOROSILICATE GLASS VIALS**

- Cap is flush to vial shoulder
- Black phenolic molded screw cap
- Polyvinyl-faced pulp liner

Capacity	O.D. x H	Cap Size	Cat. No.	Pack of
1.85 mL	12 x 35 mm	8-425	66011-020	144
3.70 mL	15 x 45 mm	13-425	66011-041	144
5.55 mL	16 x 50 mm	13-425	66011-063	144
7.39 mL	17 x 60 mm	15-425	66011-085	144
11.10 mL	19 x 65 mm	15-425	66011-100	144
14.79 mL	21 x 70 mm	18-400	66011-121	144
22.18 mL	23 x 85 mm	20-400	66011-143	144
29.57 mL	25 x 95 mm	22-400	66011-165	144

Featured vials are short form style.

Visit [VWR.COM](http://VWR.COM) for capsule style options

# Durable, thick-walled square bottles

solutions for every day use

## VWR® CLEAR FRENCH SQUARE BOTTLES

MANUFACTURED FROM SODA-LIME GLASS THAT CONFORMS TO USP TYPE III REQUIREMENTS

- Space saving
- Easy-to-fill
- Available in a variety of package sizes with multiple closure options

VWR Clear French Square Style Bottles are space-saving glass bottles known for their thick-walled, durable construction and crystal clear appearance. The clear glass provides maximum content visibility and minimal chemical inference with bottle's contents. The French Square bottle design allows the bottle to hold the maximum volume of contents while taking up minimum shelf and storage space.

Bottles are available in three packaging options: convenience packs with closures attached to help maintain cleanliness, in bulk packs with unattached closures included in separate bags, or bulk packed without closures.



Capacity	Diameter x H	Cap size	Liner material	Cat. No.	Case of
<b>Convenience Packed with Closures Attached</b>					
30 ml (1 oz.)	31 x 72 mm	24-400	Pulp/Vinyl	<b>10862-180</b>	48
60 ml (2 oz.)	39 x 87 mm	28-400	Pulp/Vinyl	<b>10862-182</b>	48
125 ml (4 oz.)	45 x 111 mm	33-400	Pulp/Vinyl	<b>10862-184</b>	24
500 ml (16 oz.)	68 x 167 mm	48-400	Pulp/Vinyl	<b>10862-188</b>	24
500 ml (16 oz.)	68 x 167 mm	48-400	Solid PE	<b>10862-094</b>	24
500 ml (16 oz.)	68 x 167 mm	48-400	14B White Rubber	<b>10862-108</b>	24
15 ml (0.5 oz.)	26 x 62 mm	20-400	PE Cone	<b>10862-144</b>	48
30 ml (1 oz.)	31 x 72 mm	24-400	PE Cone	<b>10862-146</b>	48
60 ml (2 oz.)	39 x 87 mm	28-400	PE Cone	<b>10862-148</b>	48
125 ml (4 oz.)	45 x 111 mm	33-400	PE Cone	<b>10862-150</b>	24
60 ml (2 oz.)	39 x 87 mm	28-400	PTFE/LDPE	<b>10862-192</b>	48
125 ml (4 oz.)	45 x 111 mm	33-400	PTFE/LDPE	<b>10862-194</b>	24
500 ml (16 oz.)	68 x 167 mm	48-400	PTFE/LDPE	<b>10862-198</b>	24

Bulk packed bottles with unattached closures (bottles only) are also available; visit [vwr.com](http://vwr.com). Featured bottles are shown with black phenolic closures.

Capacity	Diameter x H	Cap size	Liner material	Cat. No.	Case of
<b>Bulk Packed with Unattached Closures in Bags</b>					
30 ml (1 oz.)	31 x 72 mm	24-400	Pulp/Vinyl	<b>10862-082</b>	280
125 ml (4 oz.)	45 x 111 mm	33-400	Pulp/Vinyl	<b>10862-086</b>	120
250 ml (8 oz.)	56 x 137 mm	43-400	Pulp/Vinyl	<b>10862-088</b>	84
15 ml (0.5 oz.)	26 x 62 mm	20-400	Solid PE	<b>10862-096</b>	576
30 ml (1 oz.)	31 x 72 mm	24-400	Solid PE	<b>10862-098</b>	280
60 ml (2 oz.)	39 x 87 mm	28-400	Solid PE	<b>10862-100</b>	240
125 ml (4 oz.)	45 x 111 mm	33-400	Solid PE	<b>10862-102</b>	120
500 ml (16 oz.)	68 x 167 mm	48-400	Solid PE	<b>10862-106</b>	40
15 ml (0.5 oz.)	26 x 62 mm	20-400	14B White Rubber	<b>10862-110</b>	576
30 ml (1 oz.)	31 x 72 mm	24-400	14B White Rubber	<b>10862-136</b>	280
60 ml (2 oz.)	39 x 87 mm	28-400	14B White Rubber	<b>10862-138</b>	240
125 ml (4 oz.)	45 x 111 mm	33-400	14B White Rubber	<b>10862-140</b>	120
60 ml (2 oz.)	39 x 87 mm	28-400	PE Cone	<b>10862-154</b>	240
125 ml (4 oz.)	45 x 111 mm	33-400	PE Cone	<b>10862-156</b>	120



No tools required for assembly

**FREESTANDING AND BOLT-ON BREATH SHIELDS**  
**ADD A LAYER OF PROTECTION TO HELP MAINTAIN SOCIAL DISTANCING**

- Durable clear plexiglass protection
- Uniform 0.218" thickness
- Freestanding shields feature pass-through cutouts

Freestanding shields allow for portable, flexible placement that can be adjusted based on specific needs. Bolt-on shields allow users to retrofit counters and workstations to conform to new protective requirements.

Description	W x H in.	Cat. No.	Unit
Bolt-on Breath Shield	29.25 x 30	76416-064	Pk. 2
<b>Freestanding Countertop Shields</b>			
Horizontal, with Pass-Through Window	36 x 41.5	76416-060	Each
Horizontal, with Pass-Through Window	35.5 x 23.5	76416-058	Pk. 4
Vertical, with Pass-Through Window	41.5 x 28	76416-062	Each
Vertical, with Pass-Through Window	23.5 x 35.5	76416-056	Pk. 4

**NEW**



76416-358



76416-356



76416-354

**ACCUFORM® MOBILE PARTITION SHIELD PANEL**  
**PROVIDE UNOBSTRUCTED VIEW WHILE PROTECTING AGAINST THE SPREAD OF GERMS**

- Lightweight frame provides durability
- Clear shield is high impact and shatter-resistant plastic
- Surface is cleanable with disinfectants
- Freestanding mobile unit can be conveniently moved as needed
- Use by itself or with other panels as a modular system
- Locking swivel casters provide mobility

Size	Cat. No.	Unit
47"H x 23"W	76416-354	Each
47"H x 47"W	76416-356	Each
36"H x 48"W	76416-358	Each



**FREE STANDING BIOHAZARD SHIELD**

- Ships flat with easy snap-in assembly
- Works as biohazard shield or bench divider
- High-quality clear acrylic construction
- Can be cleaned easily with wipes or mild detergents

Help prevent cross-contamination at work stations

**NEW**



Height	Length	Width	Weight	Cat. No.	Unit
13.375"	16"	40"	11 lbs.	76419-596	Each

If you need essential lab furniture at a moment's notice, **VWR REDISHIP** is your source!

**VWR® REDISHIP**

Our fast-track inventory program ensures delivery of top-quality furniture items in a matter of days\*, helping you operate without interruption.

For more information about REDISHIP, or a list of qualifying REDISHIP products, contact your Furniture Specialist at 800 932 5000 or visit [vwr.com/rediship](http://vwr.com/rediship).

\*Most REDISHIP items ship within 3-5 business days of order. All items are subject to availability at time of order. Large quantity orders may require longer lead times. 3-5 business days shipping time is based on immediate credit approval and approved drawings.



# Tables built to last

## WORKTABLES WITH 316 STAINLESS STEEL TOPS!

316 stainless steel:

- Critical environments call for the highest standard of stainless steel
- Perfect for repeated use of the most stringent cleaning agents
- Can handle solutions, acids and the most corrosive chemical agents

Available in:

- 24" and 30" widths
- 36", 48", 60", 72" and 96" lengths
- Available in C frame, H frame, and with solid shelf (304)

For more information visit [vwr.com](http://vwr.com) and search 'Metro 316 Stainless Steel Worktables.'



# Ideal solution for unconventional locations

## PORTABLE HAND SINKS

Portable hand sinks need no additional plumbing, all you need is water and a 120-volt receptacle.

- Stainless steel construction
- 5-gallon fresh water tank and 7-gallon waste water tank
- Pump with 150 V, GFCI electrical outlet and 10' cord/plug with cord wrap
- Deck mount faucet, soap dispenser and towel dispenser

Description	Bowl dimensions	Cat. No.	Unit
Portable Sink, Enclosed Cabinet	14 x 10 x 5"	76416-052	Each
Portable Sink, Open Base	10 <sup>3</sup> / <sub>8</sub> x 12 <sup>3</sup> / <sub>4</sub> x 6"	76416-054	Each



# FOCUS: INDUSTRIAL VOLUME 2 ISSUE 2

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