

Controlled Environment and Cleanroom Solutions

provided by Avantor®



We set science in motion to create a better world

Avantor® is a trusted single source for the broadest range of quality products and service solutions as well as the collaboration and expertise your customers need to accelerate innovation throughout the discovery-to-delivery process. Our products are offered through Avantor's VWR sales channel and our global eCommerce and ERP purchasing platform, ensuring seamless fulfillment worldwide, wherever they are, whatever they need.

SOLUTIONS WE DELIVER

- Materials & consumables
- Equipment & instrumentation
- Services

HOW WE DELIVER THEM

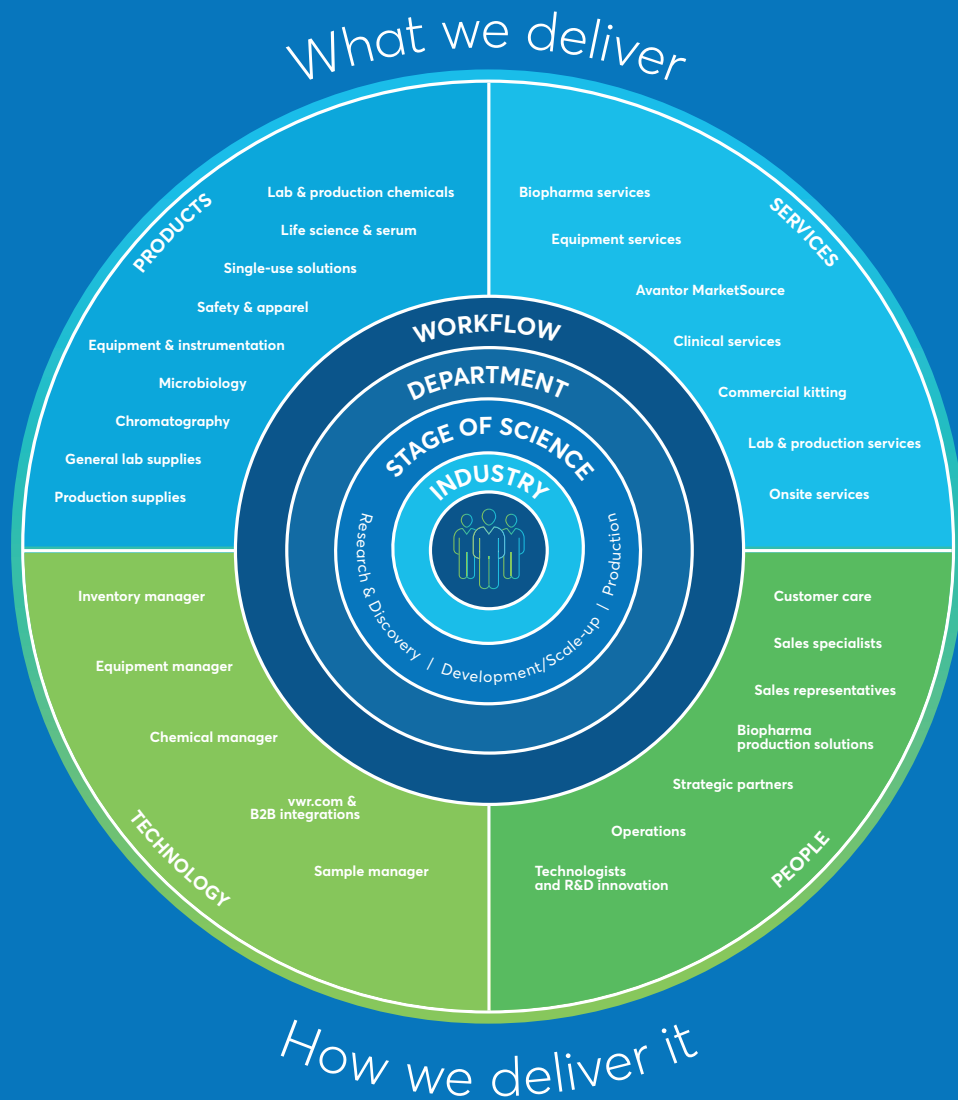
- People
- Technology platforms

6M 
PRODUCTS

14k

 **ASSOCIATES**
across the globe

4k 
CORE LABORATORY
product suppliers



VWR® Contamination control

Welcome to the range of products for contamination control.

We understand that contamination events can have a big impact, with lost time, yield or cost, so we offer an extensive range of products to, not only prevent contamination, but also for ongoing monitoring and cleaning of your environment.

Whether you work in sterile or non sterile production facilities, within research labs or cleanrooms, this range of products offer quality and performance in use, while being supported by VWR value and logistics.

We are also market leaders in the provision of services to support process efficiency or regulatory compliance, and we offer custom manufacturing or kitting services with Avantor services.



A **cleanroom** is an environment, typically used in manufacturing or scientific research, with a low level of environmental pollutants such as dust, airborne microbes, aerosol particles, and chemical vapors. More accurately, a cleanroom has a controlled level of contamination that is specified by the number of particles per cubic meter at a specified particle size.

To give perspective, the ambient air outside in a typical urban environment contains 35,000,000 particles per cubic meter in the size range 0.5 µm and larger in diameter, corresponding to an ISO 9 cleanroom, while an ISO 1 cleanroom allows no particles in that size range and only 12 particles per cubic meter of 0.3 µm and smaller.

In the pharmaceutical industry, clean rooms play a crucial role in the manufacturing of pharmaceutical products which are required to be free from microbial and particulate contamination and protected from moisture. Such pharmaceutical products are manufactured and manipulated in cleanrooms, which are fitted with HEPA and, if required, ULPA filters as well as dehumidifier systems.

Cleanroom microflora is of importance for microbiologists and quality control personnel in order to assess changes in trends. Shifts in the types of microflorae may indicate deviations from the "norm" such as resistant strains or problems with cleaning practices. The few published studies of the typical microflora, uniquely reviews over 9000 microbial isolates from a range of different grades of cleanroom. As published in PDA, Inc. 2011 and NCBI Literature Resources the typical flora is primarily those associated with human skin (Gram-positive cocci), although microorganisms from other sources such as the environment (Gram-positive rods) and water (Gram-negative rods) are also detected, although in lower numbers. The illustrations of most found genus and species are mentioned in below tables for cleanrooms with figure 1 and 2, while figure 3 and 4 typically explains the microflora by morphological type.

Genus	Percent (n)
Micrococci (and related)	38% (2571)
Staphylococci	21% (1397)
Bacillus (and related)	13% (875)
Corynebacterium (and related)	3% (198)
Rhodococci	< 1% (35)
Pseudomonas (and related)	< 1% (30)

Figure 1 - Categorization of Isolates into Major Species Genera, 2001-2009
 Published in PDA journal of pharmaceutical science and technology 2011
 A Review of Cleanroom Microflora: Types, Trends, and Patterns
 Tim Sandle

Rank	Species	Number isolated	As a percentage of all isolates
1	Micrococcus luteus	1775	26%
2	Micrococcus lylae	670	10%
3	Staphylococcus spp.	369	6%
4	Micrococcus spp.	366	5%
5	Bacillus sphaericus/fusiformis	333	5%
6	Staphylococcus epidermidis	286	4%
7	Staphylococcus capitis	157	2%
8	Staphylococcus hominis	120	2%
9	Bacillus spp.	117	2%
10	Staphylococcus haemolyticus	100	2%

Figure 2 - Table of the Ten Most Commonly Occurring Species cleanroom
 Ref Published in PDA journal of pharmaceutical science and technology 2011

GRADE A AND GRADE B MICROFLORA BY GROUP, 2001-2009

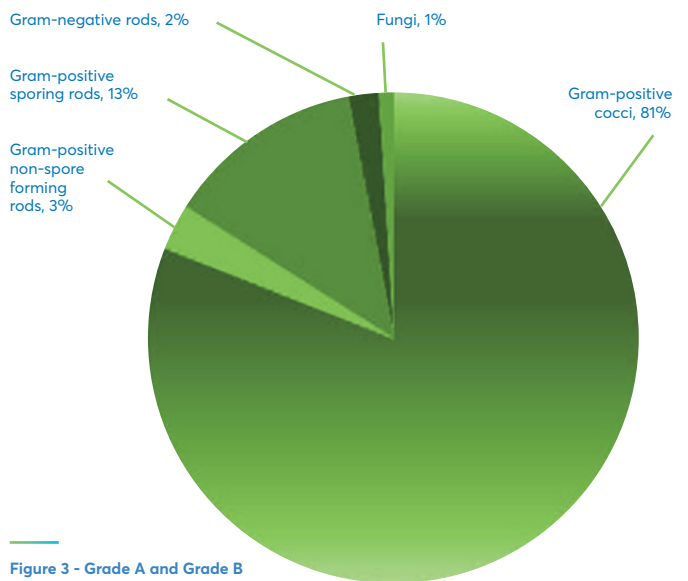


Figure 3 - Grade A and Grade B microflora by group
 Published in PDA journal of pharmaceutical science and technology 2011
 A Review of Cleanroom Microflora: Types, Trends, and Patterns
 Tim Sandle

Type	Grade C cleanrooms	Grade D cleanrooms
Gram-positive cocci	63%	41%
Gram-positive sporing rods	10%	19%
Gram-positive non-sporing rods	14%	12%
Gram-negative rods	12%	20%
Fungi	1%	8%

Figure 4 - Grade C and D Microflora by Morphological Type
 Ref Published in PDA journal of pharmaceutical science and technology 2011
 A Review of Cleanroom Microflora: Types, Trends, and Patterns
 Tim Sandle

It is of importance that pharmaceutical manufacturers and healthcare pharmacies review the types and numbers of microorganisms found within their clean areas. Such examination should be carried out over a long period of time so that the complete picture can be revealed. This is important in order to understand if certain species are being recovered pose a product or environmental risk and to check if the cleaning and sanitization practices are effective.

CLEANROOM GUIDELINES

The design and construction of clean rooms and controlled environments are covered in **Federal Standard 209E**.

This standard of air cleanliness is defined by the absolute concentration of airborne particles. Federal Standard 209E, as applied in the pharmaceutical industry is based on limits of all particles with sizes equal to or larger than 0.5 µm. The standard was canceled on November 29, 2001 by the United States General Services Administration (GSA). The document was superseded by standards written for the International Organization for Standardization (ISO)

ISO has a series of standards dedicated to clean rooms, outlining the practices and procedures required to manage the risk of contamination. Cleanrooms and associated controlled environments provide for the control of contamination of

air and if appropriate surfaces, to levels appropriate for accomplishing contamination-sensitive activities. ISO 14644 Standards were first formed from the US Federal Standard 209E Airborne Particulate Cleanliness Classes in Cleanrooms and Clean Zones published in 1999.

ISO 14644-1:2015, Clean rooms and associated controlled environments – Part 1: Classification of air cleanliness by particle concentration, and **ISO 14644-2:2015**, Clean rooms and associated controlled environments – Part 2: Monitoring to provide evidence of cleanroom performance related to air cleanliness by particle concentration, provide the framework for classifying and monitoring the cleanliness of the air in cleanrooms.

Table 1 — ISO Classes of air cleanliness by particle concentration

ISO Class number (N)	Maximum allowable concentrations (particles/m ³) for particles equal to and greater than the considered sizes, shown below					
	0.1 µm	0.2 µm	0.3 µm	0.5 µm	1 µm	5 µm
1	10 ^B	D	D	D	D	E
2	100	24 ^B	10 ^B	D	D	E
3	1000	237	102	35 ^B	D	E
4	10000	2370	1020	352	83 ^B	E
5	100000	23700	10200	3520	832	D, E, F
6	1000000	237000	102000	35200	8320	293
7	C	C	C	352000	83200	2930
8	C	C	C	3520000	832000	29300
9 ^G	C	C	C	35200000	8320000	293000

- a) All concentrations in the table are cumulative, e.g., for ISO Class 5, the 10 200 particles shown at 0.3 µm include all particles equal to and greater than this size.
 b) These concentrations will lead to large air sample volumes for classification. Sequential sampling procedure may be applied; check in ISO14644 part 1 Annex D.
 c) Concentration limits are not applicable in this region of the table due to very high particle concentration.
 d) Sampling and statistical limitations for particles in low concentrations make classification inappropriate.
 e) Sample collection limitations for both particles in low concentrations and sizes greater than 1 µm make classification at this particle size inappropriate, due to potential particle losses in the sampling system.
 f) In order to specify this particle size in association with ISO Class 5, the macroparticle descriptor M may be adapted and used in conjunction with at least one other particle size.
 g) This class is only applicable for the in-operation state.

EU GMP CLASSIFICATION

EU GMP guidelines are more stringent than others, requiring clean rooms to meet particle counts at operation (during manufacturing process) and at rest (when manufacturing process is not carried out, but room AHU is on)

This Annex provides general guidance that should be used in the design and control of facilities, equipment, systems, and procedures used for the manufacture of all sterile products applying the principles of Quality Risk Management (QRM), to ensure that microbial, particulate and endotoxin/pyrogen contamination is prevented in the final product.

USP1116 describes microbiological evaluation of clean rooms and other controlled environments which assess the effectiveness of cleaning and sanitization practices by and of personnel that could have an impact on the bioburden of the controlled environment. Microbial monitoring of clean rooms and some other controlled environments, when appropriate, should include quantitation of the microbial content of room air, compressor air that enters the critical area, surfaces, equipment, sanitization containers, floors, walls, and personnel garments (e.g., gowns and gloves).

Maximum permitted total particle concentration for classification

Grade	Maximum limits for total particle ≥ 0.5 µm/m ³		Maximum limits for total particle ≥ 5 µm/m ³	
	at rest	in operation	at rest	in operation
A	3520	3520	NOT SPECIFIED ^(A)	Not specified ^(A)
B	3520	352000	NOT SPECIFIED ^(A)	2930
C	352000	3520000	2930	29300
D	3520000	NOT PERMITTED ^(B)	29300	Not predetermined ^(B)

^(A) Classification including 5µm particles may be considered where indicated by the CCS or historical trends.

^(B) For grade D, in operation limits are not predetermined. The manufacturer should establish in operation limits based on a risk assessment and routine data where applicable.

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Air Sampler
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Cleanroom disinfectants

CLEANING AND DISINFECTION INDUSTRY GUIDANCE

USP <1072> Disinfectants and Antiseptics: "Sterile drug products may be contaminated via their pharmaceutical ingredients, process water, packaging components, manufacturing environment, processing equipment, and manufacturing operators. A sound cleaning and sanitization program is needed for controlled environments used in the manufacture of Pharmacopeial articles to prevent the microbial contamination of these articles."

The requirements for aseptic processing include readily cleanable floors, walls, and ceilings that have smooth and nonporous surfaces; particulate, temperature, and humidity controls; and cleaning and disinfecting procedures to produce and maintain aseptic conditions.

The cleaning and sanitization program should achieve specified cleanliness standards, control microbial contamination of products, and be designed to prevent the chemical contamination of pharmaceutical ingredients, product-contact surfaces and/or equipment, packaging materials, and ultimately the drug products.

VWR® offers 0.2 micron dual filtered sterile and nonsterile forms of 70% Isopropanol alcohol, hydrogen peroxide and floor disinfectants for pharmaceuticals. We also provide range of saturated and pre saturated sterile nonsterile wipes for surface cleaning purpose in cleanrooms. All are manufactured in stringent quality area complied with ISO standards and WHO GMP.

Isopropanol Alcohol



VWR® STERILE 70% ISOPROPANOL IPA BIB 500ML AND 1L

- Ready-to-use solution in bag-in-bottle
- Filtered through a 0.2 microns filter
- Manufactured under Grade A clean room
- Triple bagged and gamma irradiated to preserve product integrity
- Validated as per the Association for the Advancement of Medical Instrumentation (AAMI) 11137 Guidelines to a 10⁻⁶ Sterility Assurance Level (SAL)
- Sterility validation is performed after the trigger is installed
- The Container closure maintains sterility of contents till 17 weeks after opening
- ISO, GMP and CE Certified

Product	Pk Size	Cat. No
70% STERILE IPA 1 LITRE (70% IPA IN WFI) - BAG IN BOTTLE	5 * 1L	VWRA141-1573
70% STERILE IPA 500 ML (70% IPA IN WFI)	8 * 500ML	VWRA141-1567



VWR® 70% Isopropanol Alcohol sterile disinfectant

- VWR's ready to use solution in bag in bottle
- Triple wrapped; gamma irradiated pack
- 0.2micron filtered, manufactured in grade A
- ISO, GMP, CE certified
- Validated for SAL10⁻⁶





VWR® IPA 0.2 MICRON FILTERED 750 ML

- Ready-to-use solution for disinfection
- Filtered through a 0.2 microns filter under Grade A surrounded by grade C cleanroom
- Gamma irradiated
- Validated as per the Association for the Advancement of Medical Instrumentation (AAMI) 11137 Guidelines to a 10⁻⁶ Sterility Assurance Level (SAL).
Note: Sterility validation is performed after the pump is installed
- The Container closure maintains sterility of contents till 8 weeks after opening
- ISO, GMP and CE Certified

Product	Pk Size	Cat. No
IPA 70% STERILE 750 ML	1*6	VWRA141-1568
IPA 70% STERILE 500ML	1*8	VWRA141-1574



VWR® IPA 0.2 MICRON FILTERED 5L

- Ready-to-use solution for disinfection
- Filtered through a 0.2 microns filter under Grade A surrounded by grade C clean room
- Gamma irradiated
- Triple bagged to preserve product integrity
- ISO, GMP and CE Certified
- Eliminates the need for in-house filtration
- Meets IP/USP/IH Grade water for injection
- Each batch tested for Sterility test
- Pre filtered, packaged and sterilized for easy Introduction Into critical environments
- Certificate of irradiation and Certificate of analysis provided with every batch

Product	Pk Size	Cat. No
70% STERILE IPA 5 LITRE (70% IPA IN WFI)	2*5L	VWRA141-1614



VWR® IPA MIST SPRAY AEROSOL 300ML

- Ready-to-use solution for disinfection
- Filtered through a 0.2 microns filter under Grade A surrounded by grade C clean room
- Gamma irradiated
- Triple bagged to preserve product integrity
- ISO, GMP and CE Certified
- Eliminates the need for in-house filtration
- Meets IP/USP/IH Grade water for injection
- Each batch tested for Sterility test
- Pre filtered, packaged and sterilized for easy Introduction Into critical environments.
- Certificate of irradiation and Certificate of analysis provided with every batch.

Product	Pk Size	Cat. No
70% IPA MIST SPRAY 300 ML ST	1*10	VWRA141-1616



VWR® PRE-SATURATED WIPES POLYESTER

70% IPA WIPES

- Ready-to-use wipes in sterile packaging
- 100 % polyester wipe pre-saturated with 70% IPA and 30% WFI
- Manufactured under Grade A clean room
- Triple bagged and gamma irradiated to preserve product integrity
- Validated as per the Association for the Advancement of Medical Instrumentation (AAMI) 11137 Guidelines to a 10⁻⁶ Sterility Assurance Level (SAL).
- The packed wipes maintain sterility of contents till 17 weeks after opening
- ISO, GMP and CE Certified
- Heat sealed edges with double knit structure

Product	Size	Pk Size	Cat. No
70% STERILE IPA WIPES PRESATURATED POLYESTER PULL UP WIPES	9 X 9 INCHES	1*50	VWRA115-2937
70% STERILE IPA WIPES PRESATURATED POLYESTER PULL UP WIPES	9 X 9 INCHES	10*10	VWRA115-3088
70% STERILE IPA WIPES PRESATURATED POLYESTER WIPES	12 X 12 INCHES	1*50	VWRA115-2936
70% STERILE IPA WIPES PRESATURATED POLYESTER WIPES	12 X 12 INCHES	1*50	VWRA115-3022

Water for Injection



VWR® 100% STERILE WATER FOR INJECTION

WFI 0.2 MICRON FILTERED BIB 1L

100% sterile water for injection ready to use solution with 10⁻⁶ sterility assurance level.

- Ready to use solution for dilution and cleaning
- Filtered through a 0.2 Micron filter under Grade A surrounded by Grade C Cleanroom
- Gamma irradiated
- Triple Bagged to preserve product integrity
- Validated as per the association of the advancement of Medical Instrumentation (AAMI) 11137 Guidelines to a 10⁻⁶ sterility assurance level (SAL). Note sterility validation is performed after the trigger is installed.
- The container closure maintains sterility of contents till 17 week after opening
- ISO. GMP and CE Certified
- Meet IP / USP / IH grade water for injection
- 2 Years from Manufacturing date

Product	Pk Size	Cat. No
STERILE WATER F/ INJECTION 1L	1*5	VWRA115-3161



WFI WIPES STERILE 9*9

CLEAN | STERILE | PROTECT

- Presaturated ready-to-use wipes for general purpose cleaning
- 100% Polyester fibers, double knit structures
- Heat sealed borders
- Gamma Irradiated
- Cleanroom processed (class 5)
- Good cleaning ability and high absorption rate
- Lowest particle emission 10-6
- Optimal for disinfection of critical surfaces in sterile and nonsterile cleanrooms
- Suitable for removal general contamination and residue on all types of surfaces
- ISO, GMP and CE Certified

Product	Size	Pk Size	Cat. No
WFI WIPES STERILE	9 x 9 INCHES	10wipes*10pack	VWRA115-2938

Quaternary ammonium compounds disinfectants



QUATERNARY AMMONIUM COMPOUNDS DISINFECTANTS 1 AND 5 L

Quaternary ammonium compounds are suitable for use on all types of hard surfaces in cleanroom and controlled environment, isolators, LAFs, equipment exteriors and production vessels.

Broad Spectrum disinfectant with excellent Bactericidal, Fungicidal, Sporocidal activity.

It can be used effectively as part of a rotation with any other Quaternary Ammonium Compound Based Biocide.

- QT 18 NS 1L
- QT 18 S 5L
- QT 22 NS 1L
- QT 22 S 5L
- QT 24 NS 1L
- QT 24 S 5L

Product	Pk Size	Cat. No
BOTTLE QUATERNARY AMMONIUM COMPOUNDS 22NS - 1L	6 * 1L	VWRA115-3165
BOTTLE QUATERNARY AMMONIUM COMPOUNDS 18 NS- 1L	6 * 1L	VWRA115-3164
BOTTLE QUATERNARY AMMONIUM COMPOUNDS 24NS 1-L	6 * 1L	VWRA115-3169
BOTTLE 1% STERILE QT COMPOUNDS 22S 5-L	2 * 5L	VWRA115-3166
BOTTLE 2% STERILE QT COMPOUNDS 24S 5-L	2 * 5L	VWRA115-3168
BOTTLE 2% STERILE QT COMPOUNDS 18S -5L	2 * 5L	VWRA115-3167



VWR® HS HAND SANITIZER

A solution for ensuring clean and control environments while offering customers cost effective, time saving access to Pharmaceutical and healthcare market.

Easy-to-use and fast acting hand sanitizer.

- It contains 2 active ingredients plus a skin softener for effective antimicrobial activity and skin conditioning
- Excellent alternative to sanitize the skin when soap and water are not available
- Broad spectrum activity, rapid kill and cumulative action that effectively kills 99.99% bacteria in 15 seconds
- Acts rapidly to destroy harmful microorganisms while moisturizing the skin with emollients for hydration to prevent the effects of drying; helps keep skin in healthy condition with each application
- Ingredients: Isopropyl Alcohol: >60%
Chlorhexidine: <2%
Water for Injection (WFI)
- Filled in ISO 5 (Grade A/B, Former Class 100)
- Filtered through 0.45 microns
- Completely traceable from start to finish
- Delivered with a lot specific Certificate of Analysis

Product	Pk Size	Cat. No
HAND SANITIZER WITH CHLORHEXIDINE 500ML	1*12	VWRA115-3160
HAND SANITIZER WITH CHLORHEXIDINE - 5L	1*2	VWRA115-3162

Cleanroom apparels

GOWNING

The major source of microbial contamination of controlled environments is the personnel. Contamination can occur from the spreading of microorganisms by individuals, particularly those with active infections. These facts underscore the importance of good personal hygiene and a careful attention to detail in the aseptic gowning procedure used by personnel entering the controlled environment. Once these employees are properly gowned—including complete facial coverage—they must be careful to maintain the integrity of their gloves and suits at all times. Since the major threat of contamination of product being aseptically processed comes from the operating personnel, the control of microbial contamination associated with these personnel is one of the most important elements of the environmental control program.

Avantor offers complete range of cleanroom gowning including coveralls, hoodie, booties, eyewear and gloves carefully made with stringent quality control procedures offers 10^{-6} SAL and can be used in all classes of cleanrooms.

DISPOSABLE GARMENTS

Materials for gowns are rated on the ability to block liquids and liquid-borne pathogens to avoid cross contaminations in cleanrooms. We offer garment fabrics in SMS, SMMS, SMMMS and MP format which coerce greater absorption for liquid along with softness, antistatic properties, extraordinary flexibility, high tensile strength, high resistance to chemicals heat and moisture, breathability and absolutely lint free in nature. Our fabrics also has properties of not settling any dust and getting deteriorated, or become contaminated by bacteria, fungi and molds.

Spunbond polypropylene has many excellent properties, strength and durability being just two of those. On the other hand, melt blown has relatively weak tensile properties but due to the smaller fibers and larger surface area taken up by the fibers, it has excellent wicking and barrier properties. So together, they can create a strong product which can also offer a barrier to fluids and particles.

VWR® – the attractive choice for high performance reusable & disposable garments

Reusable, launderable and cleanroom compatible

- Sterile and non-sterile disposable washable cleanroom garments
- SPP, SMMMS, Microporous laminated film fabrics

Avantor™



CLEANROOM APPARELS

Non-woven fabric is a type of fabric that does not require spinning and weaving. It simply arranges textile short fibers or filaments in a directional or random manner to form a fiber network structure, which is then reinforced by mechanical, thermal adhesive, or chemical method.

Spunbond+Meltblown+Spunbond Nonwovens (SMS) is a composite non-woven fabric, which is a composite product of spunbound and melt blown. It has advantages such as high strength, good filtration performance, non adhesive and non-toxic.

Spunbond+Meltblown+Spunbond Nonwovens (SMMS polypropylene) is a composite non-woven fabric, which is a composite product of spunbound and double layer of melt blown. It has advantages such as high strength, better filtration performance over SMS, no adhesive, and non-toxic. Mainly used for pharmaceuticals and medicinal products such as sterile gowns, surgical gowns, protective clothing etc

Spunbond+Meltblown+Spunbond Nonwovens (SMMMS) is a composite non-woven fabric, which is a composite product of spunbond and triple layer of melt blown. It is advanced in high strength and filtration performance, no adhesive, and non-toxic. Mainly used in critical care units, ISO 5 and 6 areas of pharmaceuticals and Isolators.

A **microporous material** contains pores with diameters less than 2 nm. Micro-Porous (MP) is a good-quality microporous film has small micropores and consistent pore distribution to resist liquid and fluid, and the moisture vapor can easily discharge through the multi-layer winding holes. Microporous materials are often used in laboratory environments to facilitate contaminant-free exchange of gases. Mold spores, bacteria, and other airborne contaminants will become trapped, while gases are allowed to pass through the material. This allows for a sterile environment within the contained area.

Our products are complying with IEST and EN standards. Same are mentioned on CoA as well as other technical documents

Test	Results	Test Method / Specification limit
Resistance to liquid	Complies	EN20811-1992
Bursting strength – wet	Complies	EN13938-1999
Bursting strength – dry	Complies	EN13938-1999
Tensile strength Dry (MD)	Complies	EN29073 -3-1992
Tensile strength Dry (CD)	Complies	EN29073 -3-1993
Tensile strength Wet (MD)	Complies	EN29073 -3-1994
Tensile strength Wet (CD)	Complies	EN29073 -3-1995
Sterility	Complies	Sterility tests as per USP -43
Bacterial filtration Efficiency	Complies	Staphylococcus aureus tests as per ASTM F2101 (flow rate 28.5 L/min, mean particle size 3.0µ) ≥95%
Sub-micron particle filtration efficiency (PFE)	Complies	ASTM F2299 (average particle size 0.5 µ) Particle filtration efficiency should be ≥95

Disposable garments



Product	Pk Size	Cat. No
STERILE DISPOSABLE COVERALL, XL MP	25 /CS	VWRA114-9493
STERILE DISPOSABLE COVERALL, XL SMMMS	25/CS	VWRA114-9350
STERILE DISPOSABLE COVERALL SET, XL SMMMS	25 /CS	VWRA114-9351
DISPOSABLE COVERALL SET, XL SMMMS	25 /CS	VWRA114-9521
STERILE DISPOSABLE HEAD GEAR, UNIVERSAL	50 /CS	VWRA114-9346
STERILE DISPOSABLE BOOTY, UNIVERSAL	50 PAIR /CS	VWRA114-9347
STERILE DISPOSABLE SHOES COVER	200 PAIR /CS	VWRA114-9348

*for SMS & SMMMS fabric garments details get in touch with res.sales person.
Garments are available in S, M, L, XL, XXL sizes & also can be customized.

Reusable cleanroom garments

VWR® - THE ATTRACTIVE CHOICE FOR HIGH PERFORMANCE REUSABLE GARMENTS

Garments are an essential factor in protecting the product from particulate and microbiological contamination through humans in controlled environments. So a well designed garment system, that demonstrates certain technical and functional characteristics, is essential.

The material is permeable to water vapour and that, together with a generous fit, offers maximum comfort.

- **Suitable for decontamination and autoclavable:** Our leasing partner specialises in EN ISO 14644 and EG GMP Guide (including Annex 1) requirements
- **Individual design:** Ensures optimum fit and functionality of the garments
- **Easy traceability:** Thanks to special information on the label. Additional inclusion of chip and/or barcoding is possible
- **High quality workmanship:** Workmanship is orientated to the requirements of the cleanroom application. By applying lap seams we ensure a high output of tight and secure seam enclosures
- **High quality fabrics:**
 - 100% polyester weave with conductive yarn
 - High wearing comfort
 - Long life cycle
 - Antimicrobial finish
 - Twill and plain weave available
 - Also available with PTFE coating
- **Sizing from S – XL:** All sizes are generously proportioned, allowing complete freedom of movement even when worn over full clothing. For an optimum fit, overshoes are also available from sizes S - XL.
- **Tested fabric quality:** Technical and functional features of our fabrics are tested by independent institutes.
 - Over 10 years experience in gowning concepts and cleanroom behaviours
 - Broad portfolio of fabrics/models meeting the highest technological standards and comfort demands
 - Certified by independent institutes
 - Pan-European consulting and application know-how
 - Long-term partnerships in decontamination and leasing MP



Product	Pk Size	Cat. No
ANTISTATIC CLEANROOM AUTOCLAVABLE SUIT WITH HOOD AND BOOTIES	1 * 1 ITEM	VWRA114-9494

Cleanroom consumables

Cleanroom goggles



VWR® DISPOSABLE GOGGLES

Sterile cleanroom disposable goggles with a lightweight frame, direct ventilation and a non-linting latex free headband .

- Toughened PC lens with anti-fog and anti-scratch coating
- Lightweight PVC frame with silicone rubber strap provide comfort.
- Ethylene oxide (EtO) sterilized and fully validated to ANSI-Z87.1 standards for safety.
- Recommended for ISO class 5 -8 area and EU GMP Grade A/B critical environments.
- Single use, cost effective gamma irradiated triple wrapped packed.

Product	Pk Size	Cat. No
GOGGLE DISPOSABLE STERILE	1 * 40 ITEMS	VWRA114-9466

VWR® Autoclavable Cleanroom Goggles

- Premium anti-fog (N-mark)
- Impact-rated optical grade Polycarbonate lens
- Wide vision goggle provides high level of comfort & maximum protection
- Retro design
- Protection against large dust particles > 0.5 µm
- Higher nose skirt offer secure seating
- Made of non-irritant silicone elastic strap
- Fit over most prescription glasses
- Triple hollows system facilitate strap length adjustment
- 24 mm silicone strap



VWR® AUTOCLAVABLE GOGGLES

Lightweight cleanroom goggles.

- Soft, thermoplastic body with toughened polycarbonate lens
- Strap with polypropylene strap hooks
- Indirect base ventilation
- Autoclavable at 121 °C
- Suitable for ISO Class 4 environments.
- EN 166:2001; Optical Class 1
- Packed in a NEBB Certified ISO Class 4 (Class 10) cleanroom.
- One piece per PE bag

Product	Pk Size	Cat. No
AUTOCLAVABLE GOGGLES, WHITE, VENT	1 * 1 ITEM	VWRA111-2615
AUTOCLAVABLE GOGGLES, BLUE, VENT	1 * 1 ITEM	VWRA111-2616



VWR® AUTOCLAVABLE ANTI-FOG CLEANROOM GOGGLES WITH CLEAR STRAP

VWR® Autoclavable Anti-Fog Cleanroom Goggles provide optimum comfort and provide protection in controlled environments and reduce the risk of contamination. These high-quality cleanroom goggles have a soft thermoplastic rubber frame featuring a modern, wraparound style; anti-fog and distortion-free panoramic lenses; indirect venting for liquid splash protection; and internal relief slots to reduce interference with prescription glasses. The wide non-irritant silicone strap with adjustable buckle attaches to the frame with a swivel clip for a comfortable fit. The nose area is split for greater comfort and the wide facial flange provides a secure seal.

Goggles are tested to withstand >40 autoclave cycles (30 Minutes duration at 121 °C/250 °C).

Product	Pk Size	Cat. No
AUTOCLAVABLE GOGGLES, WHITE, BLUE, EXTENDED VIEW	1 * 1 ITEM	VWRA111-2617

TECHNICAL SPECIFICATION

Lens	Medical-grade Polycarbonate (PC)
Frame	Thermoplastic Rubber (TPR)
Elastic Band	Silicone
Total Weight	101.8 grams
Lens Thickness	2.0 mm
Lens Base Curves	3.75
Bridge Width	32 mm
Bridge Height	20 mm
Overall Width (hinge to hinge)	164.5 mm
Overall Height	87 mm
Certification	EN166:2001, ANSI Z87.1:2005
Autoclave	Withstand at least 40 autoclave cycles. Duration 30 minutes at 121 °C / 250° F
Sterilization	Non-Sterile. The google must be autoclavable before using it.

Cleanroom sterile tape



VWR® CLEANROOM VINYLE STERILE TAPES

These multi-purpose vinyl tapes, wound on a plastic core, are ideal for use in cleanroom maintenance and support areas.

- Ideal for colour-coding, sealing, aisle marking and batching
- Matt finish can be written on with a cleanroom pen
- Length: 32,9 m
- Different colours available
- Single-packed in an easy tear perforated bag

Product	Pk Size	Cat. No
CLEANROOM VINYL STERILE TAPE, 1"	50 / PK	VWRA114-9461
CLEANROOM VINYL STERILE TAPE, 0.5"	100 / PK	VWRA114-9462



VWR® CLEANROOM STERILE TAPES, CTP

These tapes are made of polyethylene with a synthetic rubber adhesive.

- Easily bonds different media
- Serrated edge for easy tear
- High tack adhesive
- Length: 32,9 m

Product	Width (mm)	Pk Size	Cat. No
CLEANROOM CONSTRUCTION TAPE, CTP WHITE	25,4	100/PK	
CLEANROOM CONSTRUCTION TAPE, CTP WHITE	50,8	1 ROLL	VWRA114-9462
CLEANROOM STERILE TAPE, 0.5"			

Cleanroom paper



CLEANROOM PAPERS, PUREIMAGE™

Cleanroom paper is designed for use in cleanroom environments where the prevention of chemical and particle contamination is critical.

- High tensile strength and excellent heat resistance for enhanced copier and printing efficiency
- PE-binding technology results in very low levels of particles, non volatile residue and ion extractables
- Unique precision-cutting technology guarantees consistent sizing and cleanliness
- Paper is web-cleaned on both sides prior to sheeting
- Format: DIN A4 or A5
- Weight: 80 g/m² or 105 g/m²
- Produced, cleaned and double-bagged in an ISO Class 5 (FED-STD-209E Class 100) cleanroom. Paper is suitable for use in ISO Class 5 (FED-STD-209E CLASS 100) to ISO Class 6 (FED-STD-209E Class 1000) cleanrooms
- Paper is packed 250 sheets per pack, 10 packs per case

Product	Pk Size	Cat. No
CLEANROOM PAPER, WHITE, 250/PK	10 PK / CS	VWRA114-9457
CLEANROOM PAPER, YELLOW, 250/PK	10 PK / CS	VWRA114-9458
CLEANROOM PAPER, PINK, 250/PK	10 PK / CS	VWRA114-9459
CLEANROOM PAPER, CREAM, 250/PK	10 PK / CS	VWRA114-9460

Cleanroom shoe cover and socks



VWR® ADVANCED LAMINATED SHOE COVERS

VWR Advanced laminated shoe covers are manufactured from spunbonded meltblown meltblown meltblown spunbonded fabric (SMMMS).

- High coefficient of friction to provide excellent traction.
- Water-resistant
- Durable fabric with good breathability
- Significant fluid and particulate barrier
- Particle shedding: low
- Soft, cloth-like fabric

Product	Pk Size	Cat. No
STERILE DISPOSABLE SHOES COVER	200 PAIR /CS	VWRA114-9348



VWR® LAUNDERABLE CLEANROOM SOCKS

Cleanroom socks provide comfort and durability for limited and extended wear in cleanroom environments.

- Cleanroom compatible
- Low particle generation
- 100% polyester
- Ideal for use with VWR® Cleanroom Clogs
- Launderable

Minimise the risk of particle contamination with VWR® cleanroom socks. These launderable cleanroom socks provide comfort for extended wear and are cleanroom compatible.

Product	Colour	Pk Size	Cat. No
AUTOCLAVABLE CLEANROOM SOCKS	BLUE/WHITE	200 PAIR	114-9638

Cleanroom pen and marker



CLEANROOM PEN, GAMMA IRRADIATED

A low-sodium ink, capped ballpoint pen designed with a special poly barrel to limit particle generation.

- Packed in ISO Class 5 facility.
- Designed for clean and controlled environments.
- Chemical Compatibility: Holds up to wipe down with IPA, bleach and phenols. Integrity of printed barrel will be compromised with thinners and strong solvents.
- Packaging: Five Pens/ bag, and then double bagged.
- Shelf life: 24 months
- Traceability: Lot numbers and IR dot on each outer bag and on each case.
- Irradiation Standards: Minimum irradiation dose 25 kGy
- Certificates: Certificate of Irradiation and Certificate of Conformance shipped with each order

Product	Pk Size	Cat. No
STERILE CLEANROOM PEN, BLUE	50/CS	VWRA114-9464
STERILE CLEANROOM PEN, BLACK	50/CS	VWRA114-9465



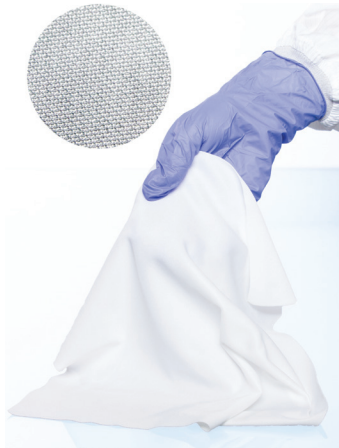
SHARPIE MARKER, GAMMA IRRADIATED

Gamma Irradiated Sharpie® Fine Point Marker, permanent marker Class 5 facility designed for clean and controlled environments.

- Materials of Construction: High-density poly barrel
Non Toxic Alcohol Based
EC15IR : Black ink
- Autoclavability: Not autoclavable
- Compatibility w/Solutions: Holds up to wipe down with IPA, bleach and phenols
- Integrity of printed barrel will be compromised with thinners and strong solvents.
- Packaging: Individually bagged, four per double bag 12 per third bag
- Shelf life: 24 months
- Traceability: Lot numbers and IR dot on each outer bag and on each case.
- Irradiation Standards: Minimum irradiation dose 25 kGy
- Certificates: Certificate of Irradiation and Certificate of Conformance shipped with each order

Product	Pk Size	Cat. No
STERILE SHARPIE CLEANROOM MARKER, BLACK	24/CS	VWRA114-9463

Cleanroom wipes



POLYESTER WIPES

Polyester Wipes for GMP and ISO Cleanrooms - For general cleaning and other wiping applications.

Double and multi-layered polyester wipes are made of dual layered robust polyester knit with a special bonding.

These premium cleanroom wipes have high absorption capacity, which is suitable for routine disinfection and removal of spillages from any surfaces. These wipes are abrasion-resistant and durable on rougher surfaces & stainless steel.

Recommended for cleaning and disinfection of surfaces, equipment, and machines in higher classified cleanrooms.

- Sterile and non-sterile robust polyester double-knit wipes.
- Designed with laser cut soft edges; lint-free.
- Least particle emissions; completely decontaminated.
- Wipes offer high absorbency and excellent general cleaning ability.
- Suitable for general cleaning and disinfection on critical cleanroom surfaces

Description	Material	Cat. No
45% POLYESTER/55% CELLULOSE NON-WOVEN DISPOSABLE WIPES	POLYESTER/CELLULOSE	VWRA115-3132
45% POLYESTER/55% CELLULOSE NON-WOVEN DISPOSABLE WIPES	POLYESTER/CELLULOSE	VWRA115-3133
45% POLYESTER/55% CELLULOSE NON-WOVEN STERILE DISPOSABLE WIPES	POLYESTER/CELLULOSE	VWRA115-3134
45% POLYESTER/55% CELLULOSE NON-WOVEN STERILE DISPOSABLE WIPES	POLYESTER/CELLULOSE	VWRA115-3135
100% POLYESTER DOUBLE KNIT 2-PLY MULTI-LAYERED WIPES	POLYESTER	VWRA115-3136
100% POLYESTER DOUBLE KNIT 2-PLY MULTI-LAYERED WIPES	POLYESTER	VWRA115-3137
100% POLYESTER DOUBLE KNIT 2-PLY STERILE MULTI-LAYERED WIPES	POLYESTER	VWRA115-3138
100% POLYESTER DOUBLE KNIT 2-PLY STERILE MULTI-LAYERED WIPES	POLYESTER	VWRA115-3139
100% POLYESTER DOUBLEPLUS KNIT 2-PLY MULTI-LAYERED WIPES	POLYESTER	VWRA115-3140
100% POLYESTER DOUBLEPLUS KNIT 2-PLY MULTI-LAYERED WIPES	POLYESTER	VWRA115-3141
100% POLYESTER DOUBLEPLUS KNIT 2-PLY STERILE MULTI-LAYERED WIPES	POLYESTER	VWRA115-3142
100% POLYESTER DOUBLEPLUS KNIT 2-PLY STERILE MULTI-LAYERED WIPES	POLYESTER	VWRA115-3143
100% POLYESTER ULTRAEDGE WIPES WITH 2 LAYERS OF DRY KNITTED POLYESTER	POLYESTER	VWRA115-3144
100% POLYESTER ULTRAEDGE WIPES WITH 2 LAYERS OF DRY KNITTED POLYESTER	POLYESTER	VWRA115-3145
100% POLYESTER ULTRAEDGE STERILE WIPES WITH 2 LAYERS OF DRY KNITTED POLYESTER	POLYESTER	VWRA115-3148
100% POLYESTER ULTRAEDGE STERILE WIPES WITH 2 LAYERS OF DRY KNITTED POLYESTER	POLYESTER	VWRA115-3149

MICROFIBER WIPES



Microfibre wipe is knitted wipe made from 75% polyester & 25% Nylon. The edges are laser sealed which prevents the release of fibers & particles. It is soft and smooth due to its plain weave design and non-abrasive which make suitable for wiping scratch sensitive surfaces.

- Extremely low particle generation
- Laser sealed edge ensures ultra-low lint & particle level.
- Soft texture, performs well wet and dry
- High chemical resistance
- Solvent safe , double bagged and vacuum cleanroom packed
- Silicone-free
- Safe for use with all disinfectants including IPA , bleach and quaternary ammonium

Product	Pk Size	Cat. No
CLEANROOM MICROFIBER WIPES 9X9 NON STERILE	1000/CS	VWRA115-3132
STERILE CLEANROOM MICROFIBER WIPES 9X9	1000/CS	VWRA115-3133
STERILE CLEANROOM MICROFIBER WIPES 12X12 STERILE	500/CS	VWRA115-3134
CLEANROOM MICROFIBER WIPES 12X12 NON STERILE	500/CS	VWRA115-3135



CURTAIN CLEANER

A robust design that allows the operator to clean vinyl curtains, both side at the same time with equal pressure in cleanroom and supportive area. The EZ Curtain Cleaner grips the curtain at the uppermost connection and slides down to provide the cleaning both the sides of curtain.

With an appropriate cleaning cover, Curtain Cleaner can be a solution for many cleaning challenges of critical and sterile environment for various industrial application.

The construction of polyabsorb outer with urethane foam inside these covers can be laundered and re-used which do have the capacity to hold disinfectants and withstand with steam sterilization.

The Elcetro polished stainless steel frame with adaptor can be connected with a range of handles to perform the ease of doing.

Product	Pk Size	Cat. No
STAINLESS STEEL ADAPTER		QDECC-14
POLYABSORB COVER		EZ33-20
POLYABSORB COVER IRRADIATED		EZ33-20IR

Ready to use culture media



RTU

As per USP Ch.1117 culture media are the basis for most microbiological tests. Safeguarding the quality of the media is therefore critical to the success of the microbiology laboratory. Media preparation, proper storage, and quality control testing can ensure a consistent supply of high-quality media. Selection of correct vendor who can provide reliable quality and reproducibility, batch specific sterilization, sterility and growth promotion tests as recommended by regulatory standards.

VWR® ready-to-use culture media plates provide accurate recovery results. Designed for critical environments, these plates provide good safety and quality integrity due to triple-wrapped, and gamma irradiation sterilization. They meet a SAL of 10^{-6} , ensuring their efficacy in environmental monitoring. With a wide range of options available for selective as well as non-selective media with and without neutralizers, beta lactamase. You can select the ideal plate for your specific needs as per regulatory recommendations.



VWR® Ready to use Culture Media

Monitor your sanitized surface with our 55mm/90mm culture media plates

- Ideal for pharma isolators & critical cleanrooms
- Triple wrapped packed gamma irradiated plates with 10^{-6} SAL
- 33ml/18ml filled media provides longer incubation period
- W/wo neutralizers for sanitized surfaces



Environmental monitoring media



READY TO USE IN PLATES

VWR® ready to use culture media plates used for various microbiological applications. Plates are packed under cleanroom conditions to avoid contamination and manufactured with formulations that follow specifications of the various pharmacopoeias and ISO regulations.

- DCM used in VWR plates is the most reliable and high quality procured from world's best sources.
- Packaging material is particle free.
- GPT is performed after gamma radiation to ensure the same results at your lab.
- Manufacturing process is fully automated, minimal human intervention to avoid any risk.
- Manufactured with formulations that follow specifications of the various pharmacopoeia and ISO regulations.
- Easy to open outer packaging helps avoid contamination.
- Highly visible marking for better identification at plate and pack level.
- Irradiation indicator is marked inside primary layer to ensure proper sterilization of media.
- The plates are packed with five plates in a row and a total of 10 plates in each plastic bag. Customized solutions are also available as per requirements.

VWR® CONTACT PLATES 55MM

Culture Media	Pack Size	Cat. No.
SOYABEAN CASEIN DIGEST AGAR WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP55T011101
SOYABEAN CASEIN DIGEST AGAR WITH LECITHIN AND POLYSORBATE 80 WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP55T011102
SOYABEAN CASEIN DIGEST AGAR WITH PENICILLINASE WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP55T011104
SOYABEAN CASEIN DIGEST AGAR WITH LECITHIN AND POLYSORBATE 80 WITH SODIUM BISULPHATE WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP55T011105
SOYABEAN CASEIN DIGEST AGAR WITH LECITHIN AND POLYSORBATE 80 AND BETA LACTAMASE WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP55T011106
SOYABEAN CASEIN DIGEST AGAR WITH LECITHIN AND POLYSORBATE 80 AND PENICILLINASE WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP55T011107
SOYABEAN CASEIN DIGEST AGAR WITH BETA LACTAMASE WITH TRIPLE WRAPPED,	10	VWRAPP55T011108
SOYABEAN CASEIN DIGEST AGAR WITH BETA LACTAMASE WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP55D011109
SABOURAUD DEXTROSE AGAR WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP55T011110
SABOURAUD DEXTROSE AGAR WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP55T011111
SABOURAUD DEXTROSE AGAR WITH LECITHIN AND POLYSORBATE 80 WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP55D011112
SABOURAUD DEXTROSE AGAR WITH LECITHIN AND POLYSORBATE 80 WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP55T011114
SABOURAUD CHLORAMPHENICOL AGAR WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP55D011115
PLATE COUNT AGAR WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP55D011116
NUTRIENT AGAR WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP55D011117
R2A AGAR WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP55D011119
MANNITOL SLAT AGAR WITH DOUBLE WRAPPER	10	VWRAPP55D011120
CETRIMIDE AGAR WITH DOUBLE WRAPPER	10	VWRAPP55D011121
XYLOSE LYSINE DEOXYCHOLATE AGAR WITH DOUBLE WRAPPER	10	VWRAPP55D011122
MACCONKEY AGAR WITH DOUBLE WRAPPER	10	VWRAPP55D011124
VIOLET RED GLUCOSE AGAR WITH DOUBLE WRAPPER	10	VWRAPP55D011125
COLUMBIA AGAR WITH DOUBLE WRAPPER	10	VWRAPP55D011126
EOSIN METHYLENE BLUE AGAR WITH DOUBLE WRAPPER	10	VWRAPP55D011127
DEY ENGLELY NEUTRALIZING AGAR DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP55D011128

VWR® SETTLE PLATES 90MM

Culture Media	Pack Size	Cat. No.
SOYABEAN CASEIN DIGEST AGAR WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP90T011001
SOYABEAN CASEIN DIGEST AGAR WITH LECITHIN AND POLYSORBATE 80 WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP90T011002
SOYABEAN CASEIN DIGEST AGAR WITH PENICILLINASE WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP90T011004
SOYABEAN CASEIN DIGEST AGAR WITH BETA LACTAMASE WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP90T011005
SOYABEAN CASEIN DIGEST AGAR WITH LECITHIN AND POLYSORBATE 80 AND BETALACTAMASE WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP90T011006
SOYABEAN CASEIN DIGEST AGAR WITH LECITHIN AND POLYSORBATE 80 ANDPENICILLINASE WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP90T011007
SABOURAUD DEXTROSE AGAR WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP90D011008
SABOURAUD DEXTROSE AGAR WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP90T011009
SABOURAUD DEXTROSE AGAR WITH LECITHIN AND POLYSORBATE 80 WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP90D011010
SABOURAUD DEXTROSE AGAR WITH LECITHIN AND POLYSORBATE 80 WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP90D011011
SABOURAUD CHLORAMPHENICOL AGAR WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP90D011012
PLATE COUNT AGAR WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP90D011021
R2A AGAR WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP90D011022
MANNITOL SLAT AGAR WITH DOUBLE WRAPPER	10	VWRAPP90D011025
CETRIMIDE AGAR WITH DOUBLE WRAPPER	10	VWRAPP90D011026
XYLOSE LYSINE DEOXYCHOLATE AGAR WITH DOUBLE WRAPPER	10	VWRAPP90D011027
MACCONKEY AGAR WITH DOUBLE WRAPPER	10	VWRAPP90D011028
VIOLET RED GLUCOSE AGAR WITH DOUBLE WRAPPER	10	VWRAPP90D011029
PSEUDOMONAS FLUORESCIN AGAR WITH DOUBLE WRAPPER	10	VWRAPP90D011030
PSEUDOMONAS PYOCYANIN AGAR WITH DOUBLE WRAPPER	10	VWRAPP90D011031
COLUMBIA AGAR WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP90D011032
CHOCOLATE AGAR WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP90D011034
EOSIN METHYLENE BLUE AGAR WITH DOUBLE WRAPPER	10	VWRAPP90D011035
SALMONELLA SHIGELLA AGAR WITH TRIPPLE WRAPPED	10	VWRAPP90D011036
DEY ENGLE Y NEUTRALIZING AGAR WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP90D011037
NUTRIENT AGAR WITH DOUBLE WRAPPER, GAMMA IRRADIATED	10	VWRAPP90D011038
SOYABEAN CASEIN DIGEST AGAR WITH LECITHIN AND POLYSORBATE 80 AND BETA LACTAMASE WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP90T011039
R2A AGAR WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP90T011040
CETRIMIDE AGAR WITH TRIPLE WRAPPED, GAMMA IRRADIATED	10	VWRAPP90T011041
SOYABEAN CASEIN DIGEST AGAR PLATE WITH 0.5% LECITHIN, 2% POLYSORBATE80 AND 1% GLYCEROL (GAMMA-IRRADIATED) (TRIPLE PACK)	10	VWRAPP90T011042
C.L.E.D. AGAR (W/BROMO THYMOL BLUE)	10	VWRAPP90T011043
MUELLER HINTON AGAR	10	VWRAPP90T011044



READY TO USE CULTURE MEDIA IN TUBES

For various microbiological uses.

- Storage at room temperature for selected media
- Compact packaging
- Tubes are fitted with aluminium screw caps
- Medium batch number and expiry date printed on every single tube
- Media in tube are packed and supplied in boxes of 50 tubes
- Customized solutions are also available as per requirements

Culture Media in tube	Pack Size	Cat. No.
RAPPAPORT VASSILIADIS SALMONELLA ENRICHMENT BROTH 10 ML TUBE	50	VWRAPP010LM5021
RAPPAPORT VASSILIADIS SALMONELLA ENRICHMENT BROTH 100 ML TUBE	50	VWRAPP100LM5022
SOYABEAN CASEIN DIGEST MEDIUM 100 ML TUBE	10	VWRAPP100LM5024
SOYABEAN CASEIN DIGEST MEDIUM (DOUBLE STRENGTH) 100 ML TUBE	10	VWRAPP100LM5025
SOYABEAN CASEIN DIGEST MEDIUM 10 ML TUBE	50	VWRAPP010LM5026
SOYABEAN CASEIN DIGEST MEDIUM 20 ML TUBE	50	VWRAPP020LM5027
SOYABEAN CASEIN DIGEST MEDIUM WITH 0.1% TWEEN 20 100 ML TUBE	10	VWRAPP100LM5028
SOYABEAN CASEIN DIGEST MEDIUM WITH 0.1% TWEEN 80 100 ML TUBE	10	VWRAPP100LM5029
SOYABEAN CASEIN DIGEST MEDIUM WITH 0.1% TWEEN 80 10 ML TUBE	50	VWRAPP010LM5030
SABOURAUD DEXTROSE BROTH 100 ML TUBE	10	VWRAPP100LM5031
SABOURAUD DEXTROSE BROTH 10 ML TUBE	50	VWRAPP010LM5032
SOYABEAN CASEIN DIGEST MEDIUM 90 ML IN 100 ML TUBE	10	VWRAPP100LM5034
FLUID THIOLYCOLLATE MEDIUM IN 100 ML TUBE	10	VWRAPP100LM5035
MACCONKEY BROTH 100 ML TUBE	10	VWRAPP100LM5036
ENTEROBACTERIA ENRICHMENT BROTH MOSSSEL 100 ML TUBE	10	VWRAPP100LM5037
BUFFERED SODIUM CHLORIDE PEPTONE SOLUTION PH 7.0 100 ML TUBE	10	VWRAPP100LM5038
0.9% NACL 10 ML IN TUBE	50	VWRAPP010LM5039
PEPTONE WATER 100 ML IN TUBE	10	VWRAPP100LM5040
BRAIN HEART INFUSION 10 ML	50	VWRAPP100LM5041



READY TO USE CULTURE MEDIA IN BOTTLES

Ready to use culture media for microbiological test requirements in the food industry, water, environmental control and in the pharmaceutical industry. The range is manufactured from high quality raw materials. All the culture media are manufactured using selected dehydrated bases, and comply with various standards. All media are produced using the latest technology and are subject to strict quality controls carried out by qualified microbiologists.

- Storage at room temperature for selected media
- Supplied in glass bottles with different screw caps
- Certificate of Analysis guarantees

Product	Pack Size	Cat. No.
SOYABEAN CASEIN DIGEST AGAR 250ML GLASS BOTTLE	10	VWRAPP010LM5021
SABOURAUD DEXTROSE AGAR 250ML GLASS BOPTTLE	10	VWRAPP100LM5022
WFI 100ML BOTTLES	10	VWRAPP100LM5024

Air sampler



AIR SAMPLERS, SAS SUPER ISO

SAS Super ISO 100 and SAS Super ISO 180 are differentiated by differences in airflow; this choice depends on the application and allows continuous or sequential sampling from a few minutes to several hours. The data can be stored on the SAS instrument itself or on any remote PC.

- Design avoids turbulence in unidirectional airflow and reaspiration of tested air
- Portable and easily positioned, they operate with long life rechargeable batteries
- All manuals are available as USB key in six languages

Derived from the SAS instrument used on the International Space Station, the SAS Super ISO have been specifically designed for pharmaceutical and hospital sectors.

ISO 14698 and USP 1116 Pharmacopoeia.

For complete system, please order the sampler you require, a battery charger and the appropriate head.

Sampling head	Aluminium, stainless steel or plastic (certified ready to use)
W×D×H	120×125×275 mm
Weight	1,8 kg

Description	Model	Airflow	Pk	Cat. No.
Air sampler using contact plates	SAS Super ISO 100	100 l/min	1	710-0871
Air sampler using contact plates	SAS Super ISO 180	180 l/min	1	710-0872
Air sampler using Petri dishes	SAS Super ISO 100	100 l/min	1	710-0869
Air sampler using Petri dishes	SAS Super ISO 180	180 l/min	1	710-0870

Description	Pk	Cat. No.
Accessories		
Sterile heads for Ø 55 mm contact plates	40	710-0890
Sterile heads for Ø 90 mm Petri dishes	40	710-0891
Aluminum aspirating head for Ø 55 mm contact plates	1	710-0892
Stainless steel aspirating head for Ø 55 mm contact plates	1	710-0880
Aluminum aspirating head for Ø 90 mm Petri dishes	1	710-0886
Stainless steel aspirating head for Ø 90 mm Petri dishes	1	710-0878
Soft carrying case	1	710-0896
Aluminum carrying case	1	710-0875
Telescopic floor tripod	1	710-1857
IQ-OQ-PQ manual	1	710-1047
Adapter for Petri dishes Ø 90 mm	1	710-0882
Aspirating chamber for Petri dishes, Ø = 90 mm	1	710-0948
Aluminum aspirating head and for Ø 90 mm Petri dishes with adapter for Ø 55 mm contact plates	1	710-0879
Battery charger with interchangeable plug, 90 – 260 V	1	710-0973
Software for downloading data	1	710-0970
Downloading device for software	1	710-0971
Finished plate holder, 7 mm	3	710-1982
Stainless steel floor tripod for cleanrooms	1	710-0889



AIR SAMPLERS, SAS SUPER DUO 360

When environmental contamination is very low, and the number of samples to be performed is high, operational duration can be an important factor in the choice of SAS instrument. Two sampling heads that operate simultaneously to sample 1000 litres of air in less than three minutes is the solution.

- Single body with two aspirating heads
- All manuals are available as USB key
- Instruction manual in six different languages

The simultaneous sampling on two heads also allows you to obtain statistically representative results when using the same type of media in both heads. It is also possible to use two different media for the same sampling cycle (TSA or PCA for Total Bacterial Count and SDA for yeasts and moulds). Sampling with the two heads can have sample process time, which is a real advantage for busy users.

ISO 14698 and USP 1116 Pharmacopoeia.

For complete system, please order the sampler you require, a battery charger and the appropriate head.

Airflow rate	180 l/min
Sampling head	Aluminium, stainless steel or plastic (certified ready to use)
WxDxH	260x110x352 mm
Weight	2,2 kg

Description	Model	Pk	Cat. No.
Air sampler using contact plates	SAS Super DUO 360	1	710-0867
Air sampler using Petri dishes	SAS Super DUO 360	1	710-0866

Description	Pk	Cat. No.
Accessories		
Adapter for Petri dishes Ø 90 mm	1	710-0882
Aluminium carrying case	1	710-0876
Aluminum aspirating head and for Ø 90 mm Petri dishes with adapter for Ø 55 mm contact plates	1	710-0879
Aluminum aspirating head for Ø 55 mm contact plates	1	710-0892
Aluminum aspirating head for Ø 90 mm Petri dishes	1	710-0886
Interface cable	1	710-0964
IQ-OQ-PQ validation protocols	1	710-0957
Soft carrying case	1	710-0888
Software	1	710-0975
Stainless steel aspirating head for Ø 55 mm contact plates	1	710-0880
Stainless steel aspirating head for Ø 90 mm Petri dishes	1	710-0878
Stainless steel floor tripod for cleanrooms	1	710-0889
Stainless steel head and adapter	1	710-0877
Stainless steel holder for table and wall	1	710-0963
Sterile heads for Ø 55 mm contact plates	40	710-0890
Sterile heads for Ø 90 mm Petri dishes	40	710-0891
Telescopic floor tripod	1	710-1857
Universal battery charger	1	710-0993



AIR SAMPLERS, SAS SUPER IAQ

The SAS Super IAQ provides the same efficiency as recorded by the sampling tests conducted by Centre for Applied Microbiology and Research (CAMR-UK).

- Microbiological air monitoring solution for agri-food and environmental operators
- Includes all accessories required for microbiological air sampling
- Easy to use and time saving, low operating cost solution

Designed specifically for the Indoor Air Quality (IAQ) sector, this SAS Super instrument is particularly lightweight and durable to operate in any environment, therefore suitable for environmental hygienists and agri-food sector operators.

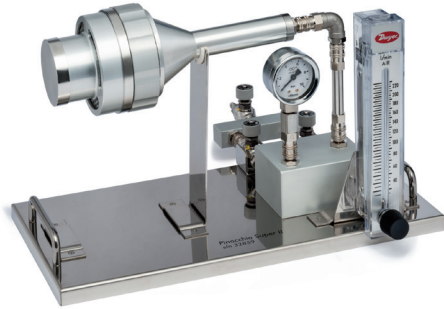
Supplied with aluminium aspirating head for Petri dishes (Ø 90 mm) or contact plates (Ø 55 mm), battery charger, remote control and soft carrying case.

Airflow rate	100 l/min
Sampling head	Aluminium
Power	220 V/50 Hz
W×D×H	105×110×290 mm
Weight	1,75 kg

Description	Model	Pk	Cat. No.
Sampler for contact plates	SAS Super IAQ	1	710-0868
Sampler for Petri dishes	SAS Super IAQ	1	710-0919

Description	Pk	Cat. No.
Accessories		
Universal battery charger	1	710-0993
Sterile heads for Ø 55 mm contact plates	40	710-0890
Sterile heads for Ø 90 mm Petri dishes	40	710-0891
Aluminum aspirating head for Ø 55 mm contact plates	1	710-0892
Aluminum aspirating head for Ø 90 mm Petri dishes	1	710-0886
Aluminum carrying case	1	710-0875

Description	Pk	Cat. No.
Accessories		
Telescopic floor tripod	1	710-1857
Adapter for Petri dishes Ø 90 mm	1	710-0882
Stainless steel holder for table and wall	1	710-0963
Aluminum aspirating head and for Ø 90 mm Petri dishes with adapter for Ø 55 mm contact plates	1	710-0879
Stainless steel floor tripod for cleanrooms	1	710-0889



AIR SAMPLER FOR COMPRESSED GASES, SAS SUPER PINOCCHIO II

SAS Super Pinocchio II is a microbial impaction sampler to test the quality of compressed air and gases used in cleanrooms. A compressed air source is connected and the flow meter regulated to achieve the required flow rate.

- Fully transportable
- 55 mm contact plates (RODAC) or 90 mm standard Petri dishes
- Sampling period timed to obtain the required total sample volume

IQ, OQ and PQ documentation available.

Self-contained unit consisting of connections, airflow meter, pressure gauge, tap, funnel head complete with plate housing.

Airflow rate	100 l/min
Material	Stainless steel
Max. temperature	40 °C
WxDxH	400x200x245 mm
Weight	2 kg

Description	Model	Pk	Cat. No.
Air microbial sampler using Petri dishes	SAS Super Pinocchio II	1	710-0950
Air microbial sampler using contact plates	SAS Super Pinocchio II	1	710-0949
Air microbial sampler using contact plates with calibration certificate	SAS Super Pinocchio II	1	710-0951
Air microbial sampler using Petri plates with calibration certificate	SAS Super Pinocchio II	1	710-0955

Description	Pk	Cat. No.
Accessories		
IQ-OQ-PQ manual	1	710-0976
Calibrated flow meter	1	710-0965
Flow meter, 20 – 200 LPM	1	710-1981



AIR SAMPLERS, SAS SUPER ISOLATOR

The SAS instrument control unit is placed outside and connected to the aspirating head using a simple electrical connection. All possible typical contamination sources of the vacuum sampling system are avoided using the SAS Super Isolator. An interesting application of this air sampler is that several heads can be controlled by a single SAS control unit providing a practical and economical solution.

- Operational flexibility, multiple language choice
- Records day, time, site, volume of air sampled, and operator's name
- Large back lit screen with intuitive menu; active operation status confirmed by flashing red LED

SAS Super Isolator instruments have been created for the specific monitoring of closed environments of isolators and RABS, ensuring their complete separation from outside influences.

For complete system, please order the sampler you require, a battery charger and the appropriate head.

Model	SAS Super Isolator 100	SAS Super Isolator 180	SAS Super Isolator 100	SAS Super Isolator 180	Duo SAS Super 360 Isolator
Airflow rate	100 l/min	180 l/min	100 l/min	180 l/min	2x180 l/min
Sampling head	Stainless steel				
WxDxH	105x110x290 mm				360x160x180 mm
Weight	1,75 kg				2,1 kg

Description	Model	Pk	Cat. No.
Sampler using contact plates	SAS Super Isolator 100	1	710-0943
Sampler using contact plates	SAS Super Isolator 180	1	710-0944
Sampler using Petri dishes	SAS Super Isolator 100	1	710-0945
Sampler using Petri dishes	SAS Super Isolator 180	1	710-0946
Air sampler with 2 aspirating heads using contact plates	Duo SAS Super 360 Isolator	1	710-0977
Air sampler with 2 aspirating heads using Petri dishes	Duo SAS Super 360 Isolator	1	710-0978

Description	Pk	Cat. No.
Accessories		
In-Out MH spare battery	1	710-0998
IQ-OQ-PQ manual	1	710-0954
Plug coupler	1	710-1980
Universal battery charger	1	710-0993
Battery charger, 110 V	1	710-1699
Extension cable (3 m)	1	710-0968
Sterile heads for Ø 55 mm contact plates	40	710-0890
Sterile heads for Ø 90 mm Petri dishes	40	710-0891
Stainless steel head and adapter	1	710-0877
Aluminum aspirating head for Ø 55 mm contact plates	1	710-0892
Stainless steel aspirating head for Ø 55 mm contact plates	1	710-0880
Aluminum aspirating head for Ø 90 mm Petri dishes	1	710-0886
Stainless steel aspirating head for Ø 90 mm Petri dishes	1	710-0878
Interface cable	1	710-0964
Software	1	710-0975
Remote control	1	710-0962
Aspirating chamber for contact plates, Ø 55 mm	1	710-0947
Adapter for Petri dishes Ø 90 mm	1	710-0882
Aspirating chamber for Petri dishes, Ø = 90 mm	1	710-0948
Fixed wall-type extension cable	1	710-1983
Lightweight aluminium carrying case	1	710-1697
Removable wall-type extension cable	1	710-1984
Battery charger with interchangeable plug, 90 – 260 V	1	710-0973

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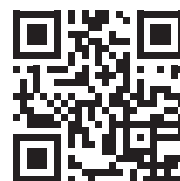
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