



Ansell

LIFE SCIENCES
HAZARDS & SOLUTIONS

 **avantor™**

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LIFE SCIENCES HAZARDS & SOLUTIONS

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LIFE SCIENCES



Companies within the Life Sciences industry are focused on research, development and the manufacturing of products that enhance human well-being. Workers within this industry face a number of hazards not only to themselves but to their vital research and products. Laboratory workers and research facility workers who are exploring crucial ideas for new drugs, vaccines, medical devices and other solutions face numerous hazards including particulate, chemical, biological exposure to heat and cut. Once the research and clinical trials are completed and the vaccine, for example, is to be upscaled and mass produced there are strict protocols to take into consideration. The primary focus for protection shifts to the product to ensure there is no risk of contamination during the manufacturing process, with facilities either operating in clean or clean and aseptic/sterile environment using PPE with validated sterility levels, cleanliness levels and chemical permeation levels.

PRIMARY HAZARDS IN CLEAN, CLEAN/STERILE LIFE SCIENCES ENVIRONMENTS

Particulate Hazards



Chemical Hazards



Biological Hazards



Allergy Hazards



Static Hazards



Ergonomic Hazards

ISO EN 14644-1 2015 Classification Number							
CONSUMABLES	1 & 2	3	4	5	6	7	8
Hood*	○	✓	✓	✓	○	○	○
Coverall	✓	✓	✓	✓	✓	○	○
Overboots	✓	✓	✓	✓	✓	○	○
Overshoes	×	×	×	×	○	✓	○
Undergarments	✓	✓	✓	✓	○	○	○
Coats	×	×	×	×	○	✓	✓
Facemasks*	○	✓	✓	✓	○	○	○
Gloves	✓	✓	✓	✓	○	○	○
Bouffant Cap	✓	✓	✓	✓	✓	✓	✓
Goggles	○	○	○	○	○	○	○
Key: ✓ Recommended ○ Application Specific × Not Recommended							

The biggest hazard within a cleanroom/ controlled environment is contamination from people often in the form of particulates. To avoid the introduction of contamination/particles it's imperative workers wear the most appropriate PPE for the cleanroom ISO classification. These include disposable garments, gloves, goggles and facemasks.

The user should assess the choice of apparel and accessories carefully to ensure these are suitable for the Class of cleanroom, the nature and duration of the task.

This table is only intended as a general guide and should not be construed as a recommendation of the apparel required for a particular Class of cleanroom. Please see the Standard Operating Procedure of the cleanroom for the apparel required, the gowning procedure and change frequency.

* Hoods and facemasks are not recommended in ISO 1&2 as full face respirators or encapsulation suits may be in use.

LIFE SCIENCES HAZARDS & SOLUTIONS

Risks and hazards within the Life Sciences industry varies dependent on the environment, facility and the task being undertaken. Whether working with hazardous chemicals whilst compounding vital drugs and vaccines or handling hazardous chemicals during semiconductor/micro-electronic manufacturing, biological hazards in biomanufacturing or assembling medical devices which must be absolutely contamination free, the appropriate level of PPE is key.

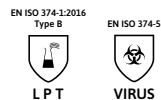
PRODUCT PROTECTION

For many life sciences applications the main purpose of PPE is to protect the product from contamination. Equipping workers with PPE that is compatible for use within strictly regulated cleanrooms and controlled environments is essential to reduce the risk of cross-contamination, which can be in the form of particulates (dust, skin, hair), bioburden (bacteria, viruses, fungi) and chemicals (solvents, residues), to ensure the integrity of the products being manufactured or the research being undertaken.

AccuTech® 91-225 [More Info](#)

Sterile disposable latex cleanroom glove

- **Hand-specific design:** Hand protection that blends comfort and dexterity
- **Cleanroom packaged:** Class 100 (ISO 5)/Grade A cleanroom compatibility
- **Optimized thickness:** Ideal balance of protection and tactile sensitivity



BioClean™ N-PLUS BNPS [More Info](#)

Sterile disposable nitrile cleanroom glove

- **Extended Long Cuff:** Provide increased coverage for excellent protection of the forearms
- **Chemical protection:** Resistant to a range of chemicals and chemotherapy drugs
- **Sterility Assurance:** Gamma sterilized with sterility assurance level (SAL) of 10⁻⁶



Nitrilite™ 93-401 [More Info](#)

Non-sterile disposable nitrile cleanroom glove

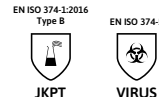
- **Class 10 (ISO 4) cleanroom compatibility:** Assured cleanliness
- **Low ionic content and particulate levels:** Superb product protection
- **Latex-free, accelerator-free:** Type I and Type IV allergy risks eliminated



TouchNTuff® 93-700 [More Info](#)

Sterile Disposable Nitrile Cleanroom Glove

- **Proprietary nitrile formulation:** Durability and chemical splash protection
- **Gamma sterilization:** A sterility assurance level (SAL) of 10⁻⁶
- **Silicone-free:** Assured product protection



Glove Style	Color	Material	Glove Length	Glove Thickness	AQL	Cleanroom Class	Cuff Style	Anti-Static	Size Click for more
AccuTech® 91-225	Natural	Natural Rubber Latex	12"	Palm: 9.1mil Finger: 9.1mil	0.65	Class 100/ISO Class 5 & EU GMP Grade A/B and other sterile cleanrooms	Straight	Not Tested	6 - 9 i
BioClean™ N-PLUS BNPS	White	Nitrile	16"	Palm: 7.09mil Finger: 8.26mil	1.0	Class 10/ISO Class 4 & EU GMP Grade A/B and other sterile cleanrooms	Beaded	Yes	6 - 10 i
Nitrilite 93-401	White	Nitrile	12"	Palm: 4.3mil Finger: 6.3mil	1.5	Class 10/ISO 4	Beaded	Yes EN1149	XS - XL i
TouchNTuff® 93-700	Green	Nitrile	12"	Palm: 5.1mil Finger: 4.3mil	1.5	Class 100 (ISO 5)	Beaded	Yes	S - XL i

Note: Product availability may vary. These styles serve as examples only. For tailored recommendations for your unique needs and applications, please request an AnsellGUARDIAN® assessment.

PRODUCT PROTECTION

BioClean-D™ DROP-DOWN STERILE COVERALL WITH HOOD S-BDSH

[More Info](#)

Drop-down sterile coverall with hood

- **Drop-down design* technology:** Aseptic donning made easy
- **CleanTough™ fabric:** For an anti-static, low-linting sterile garment
- **Quick-release press stud tabs:** Aseptic donning further facilitated

* Patent #US8683615, US9532614B2



EN 1149-5



BioClean-D™ COVERALL WITH HOOD AND INTEGRATED BOOTS – STERILE S-BDFC

[More Info](#)

Sterile cleanroom coverall with hood and integrated boots

- **CleanTough™ fabric:** For a lightweight, low-linting sterile coverall
- **Front zip and protective flap:** Contaminant and liquid splash defenses
- **Integrated boots and anti-slip soles:** Head-to-toe personal protection



TYPE 5



TYPE 6



BioClean™ CLEARVIEW GOGGLES BCGS1

[More Info](#)

Sterile clearview single-use goggles (eto)

- **ANSI/ISEA compliance:** Certified personal eye protection
- **Indirect ventilation system:** Minimized contamination risks
- **Anti-scratch and anti-fog properties:** For clear, unobstructed vision



BioClean™ LOOPED FACEMASK STERILE OR NON-STERILE MEA210-1

[More Info](#)

Sterile or non-sterile flat facemask with headloops

- **Contamination control:** High particle and Bacterial Filtration Efficiency (BFE)
- **Cleanroom-compatible materials:** Reduced risk of contamination
- **Clip connector:** For quick/easy and secure fastening



Bodysuit Style	Color	Garment	Fabric	Seam	Cleanroom Class	Design Features by Model Configuration			Size Click for more
BioClean-D™ DROP-DOWN STERILE COVERALL WITH HOOD S-BDSH	White	Coverall with Hood	Polyethylene/ non-woven polypropylene laminate	Bound	Class 10/ISO Class 4 & EU GMP Grade A/B and other sterile cleanrooms	Drop-down design technology, preventing needless external surface contact, and is equipped with quick-release tabs and internal colored tabs, indicating safe touch points that further ensure aseptic donning			XS - 8XL i
BioClean-D™ COVERALL WITH HOOD AND INTEGRATED BOOTS – STERILE S-BDFC	White	Coverall with Hood and Boots	Polyethylene/ non-woven polypropylene laminate	Bound	Class 10/ISO Class 4 & EU GMP Grade A/B and other sterile cleanrooms	Lightweight CleanTough™ material means the BioClean-D Coverall with Hood and Integrated Boots – Sterile S-BDFC is low-linting and ISO cleanroom-compliant, reducing contamination risks			S - 4XL i
Goggles Style	Color	Material	Lens Thickness	Bridge Height	Bridge Width	Overall Height	Overall Width	Cleanroom Class	Size Click for more
BioClean™ CLEARVIEW GOGGLES BCGS1	Clear	PVC, Polycarbonate, Silicone	2mm	25mm	50mm	85mm	155mm	Class 10/ISO Class 4 & EU GMP Grade A/B and other sterile cleanrooms	One size i
Facemask Style	Product Description								Size Click for more
BioClean™ LOOPED FACEMASK STERILE MEA210-1	The BioClean™ Sterile Looped Face Mask MEA210-1 delivers high bacterial, viral, and particle filtration efficiency, while offering greater breathability and comfort for the user								One size i

Note: Product availability may vary. These styles serve as examples only. For tailored recommendations for your unique needs and applications, please request an AnsellGUARDIAN® assessment.

CHEMICAL PROTECTION

Workers in pharmaceutical manufacturing, compounding pharmacies, labs, biomanufacturing, micro-electronics, and precision engineering face daily exposure to hazardous chemicals. These risks arise during tasks such as blending, transferring liquids, and cleanroom cleaning. Wearing the right PPE with proper chemical protection is essential for their safety.

MICROFLEX® 93-360 [More Info](#)

Non-sterile disposable nitrile & neoprene (polychloroprene) cleanroom glove

- **Three-layer design:** Protection against harsh chemical hazards*
- **Proprietary formulation:** Comfort, tactility and dexterity
- **Nitrile and neoprene composite:** Type I latex allergy risks eliminated

* Including acids, solvents and bases



MICROFLEX® MidKnight™ MK-296 [More Info](#)

Black nitrile gloves that mask stains

- **Distinctive black color:** Hides dirt, stains, oils and grease while making light objects more visible
- **Fully textured non-foaming design:** For secure grip in dry and wet conditions
- **Genuine versatility:** These gloves are suitable for various applications



TouchNTuff® 92-600 [More Info](#)

An unparalleled combination of chemical splash protection, comfort and durability

- **Advanced chemical resistance:** With TNT™ Technology for ultimate protection
- **Superior comfort:** Extra-soft, smooth feel, boosting comfort for extended wear
- **Outstanding durability:** Proprietary nitrile resists rips and tears



TouchNTuff® 93-300 [More Info](#)

Non-sterile disposable nitrile cleanroom glove

- **Robust nitrile formulation:** Puncture, tear and chemical splash resistance
- **Silicone-free design:** Improved product protection
- **Class 100 (ISO 5) cleanroom compatibility:** Assured cleanliness



Glove Style	Color	Material	Glove Length	Glove Thickness	AQL	Cleanroom Class	Cuff Style	Anti-Static	Size Click for more
MICROFLEX® 93-360	Teal, Blue	Nitrile and Neoprene (Polychloroprene)	11.2"	Palm: 7.9mil Finger: 7.9mil	0.65	Class 100/ISO 5	Beaded	Yes	6 - 11 i
MICROFLEX® MidKnight™ MK-296	Black	Nitrile	9.6"	Palm: 4.7mil Finger: 6.0mil	1.5	—	—	Yes	XS - 2XL i
TouchNTuff® 92-600	Green	Nitrile	9.5"	Palm: 4.9 mil Finger: 5.5mil	4.0	—	—	Yes EN1149	XS - 2XL i
TouchNTuff® 93-300	Green	Nitrile	12"	Palm: 5.1mil Finger: 6.3mil	1.5	Class 100/ISO 5	Beaded	Yes	S - XL i

Note: Product availability may vary. These styles serve as examples only. For tailored recommendations for your unique needs and applications, please request an AnsellGUARDIAN® assessment.

CHEMICAL PROTECTION

TouchNTuff® Dermashield™ 73-701

[More Info](#) 

Sterile disposable neoprene (polychloroprene) cleanroom glove

- **Neoprene formulation:** Excellent puncture resistance and durability
- **SUREFIT™ Technology:** Lesser risk of cuff roll-down
- **Latex-free, chemical accelerator-free:** Type I and Type IV allergy risks eliminated



EN ISO 374-1:2016
Type A



KLMNPT



VIRUS



BioClean-C™ APRON WITH SLEEVES BCAS

[More Info](#) 

Chemotherapy protective apron with sleeves - non-sterile

- **CleanTough™ material:** Low-linting and lightweight
- **Ultrasonically bonded seams:** Heightened strength and protection



TYPE PB (6)



PARTIAL BODY PROTECTION ONLY

EN 14605:2005
+ A1:2009



TYPE PB4



Glove Style	Color	Material	Glove Length	Glove Thickness	AQL	Cleanroom Class	Cuff Style	Anti-Static	Size Click for more
TouchNTuff® Dermashield™ 73-701	Green	Neoprene (Polychloroprene)	11.6"	Palm: 7.0mil Finger: 7.5mil	0.65	Class 100/ISO Class 5 & EU GMP Grade A/B and other sterile cleanrooms	Straight with SUREFIT™ Technology	No	6-9 
Apron Style	Color	Fabric	Seam	Design Features by Model Configuration			Cleanroom Class	Size Click for more	
BioClean-C™ APRON WITH SLEEVES BCAS	Blue	Polyethylene/ non-woven polypropylene laminate	Welded and Taped	The BioClean-C™ Apron with Sleeves BCAS is an ideal choice as a chemotherapy protective apron, as it is tested against a wide range of chemotherapy drugs			Class 10/ISO 4	S-L 	

Note: Product availability may vary. These styles serve as examples only. For tailored recommendations for your unique needs and applications, please request an AnsellGUARDIAN® assessment.

UNDERSTANDING THE STANDARDS

When choosing PPE for protection against viruses like 2019-nCoV, it's important to know which regulatory standards to look for. Several top selling Ansell styles that meet relevant EN and ASTM standards are featured below. Please consult individual product information for details regarding the specific standards different products meet.

EN 455
+
ASTM D6319
+
ASTM D3578

Standards for **gloves** used for medical examinations.

EN ISO 374-5

VIRUS

Standards for **hand and body protection** against chemicals and micro-organism risks.

ASTM F1671

EN 14126


Standard for **protective clothing** against infectious agents.*

EN 149:2001
+
A1:2009

Standards for **respiratory tract protection** against airborne particulates.

* EN 14126: 2003 defines performance requirements for clothing materials to protective against infectious agents. Test method ISO 16604 is relevant for resistance to penetration by blood-borne pathogens.

BIOLOGICAL PROTECTION

Biological hazards often referred to as Biohazards are biological substances, that pose a threat to the health of living organisms primarily humans, including medical waste, micro-organisms such as bacteria, fungi and viruses or toxins produced by micro-organisms. As a result of COVID-19, workplaces must consider the need to protect against the spread of illness and viral infection. Ansell offers a wide range of solutions that comply with the World Health Organization's guidance regarding infection prevention and control. In order to make an informed decision, product purchasers and users should stay abreast of the latest and most complete information regarding appropriate PPE to protect against COVID-19 and other viruses in their specific environments and applications.

MICROFLEX® SUPRENO™ SE SU-690

[More Info](#) 

Robust nitrile exam gloves, ensuring hand protection for diverse applications

- **Robust nitrile formulation:** For durable personal protection
- **Advanced barrier protection:** Low 0.65 AQL for allowable pinholes
- **Textured fingertips:** Allows for assured grip in diverse conditions



BioClean™ ADVANCE BASL

[More Info](#) 

Sterile disposable latex cleanroom glove

- **Double-donning-friendly design:** For convenient daily hand protection
- **Textured finger surface:** For sterile gloves with strengthened grip
- **Non-particulating EasyTear packaging:** Lesser contamination risks



EN ISO 374-1:2016
Type B



EN ISO 374-5



BioClean™ FUSION S-BFAP STERILE POLYCHLOROPRENE GLOVES

[More Info](#) 

Sterile disposable neoprene (polychloroprene cleanroom glove)

- **Optimal thickness:** Assured comfort and tactile sensitivity
- **Latex-free neoprene formulation:** Type I allergy risks eliminated
- **Extended beaded cuff design:** Enhanced hand protection



EN 421



EN ISO 374-1
Type C



EN ISO 374-5



VIRUS

Glove Style	Color	Material	Glove Length	Glove Thickness	AQL	Cleanroom Class	Cuff Style	Anti-Static	Size Click for more
MICROFLEX® SUPRENO™ SE SU-690	Violet Blue	Nitrile	9.6"	Palm: 4.3mil Finger: 7.1mil	0.65	—	—	Yes	XS - XL 
BioClean™ ADVANCE BASL	Natural	Natural Rubber Latex	11.6"	Palm: 7.87mil Finger: 9.44mil	1.5	Class 10/ISO Class 4 & EU GMP Grade A/B and other sterile cleanrooms	Beaded	No	6.5 - 9 
BioClean™ FUSION S-BFAP STERILE POLYCHLOROPRENE GLOVES	Green	Neoprene (Polychloroprene)	12"	Palm: 3.94mil Finger: 4.72mil	0.65	Class 10/ISO Class 4 & EU GMP Grade A/B and other sterile cleanrooms	Beaded	Yes	5.5 - 9 

Note: Product availability may vary. These styles serve as examples only. For tailored recommendations for your unique needs and applications, please request an AnsellGUARDIAN® assessment.

BIOLOGICAL PROTECTION

BioClean-C™ APRON WITH SLEEVES BCAS

[More Info](#)

Chemotherapy protective apron with sleeves - non-sterile

- **CleanTough™ material:** Low-linting and lightweight
- **Ultrasonically bonded seams:** Heightened strength and protection



BioClean-C™ SLEEVE COVERS BCSC

[More Info](#)

Non-sterile chemotherapy protective sleeve covers

- **Ultrasonically bonded seam:** For sleeve covers that offer a secure fit
- **Lightweight, low-linting CleanTough™ fabric:** Comfort and durability
- **ASTM F739-12 compliance:** Assured permeation protection



Apron Style	Color	Fabric	Seam	Design Features by Model Configuration	Cleanroom Class	Size Click for more
BioClean-C™ APRON WITH SLEEVES BCAS	Blue	Polyethylene/ non-woven polypropylene laminate	Welded and Taped	The BioClean-C™ Apron with Sleeves BCAS is an ideal choice as a chemotherapy protective apron, as it is tested against a wide range of chemotherapy drugs	Class 10/ISO 4	S - L i
Sleeve Style	Color	Fabric	Seam	Design Features by Model Configuration	Cleanroom Class	Size Click for more
BioClean-C™ SLEEVE COVERS BCSC	Blue	Polyethylene/ non-woven polypropylene laminate	Welded and Taped	BioClean™ chemotherapy-protective sleeve covers are specially developed to protect against a range of chemotherapy drugs, with ultrasonically bonded seams and protective tape, for added security	Class 10/ISO 4	Sterile Non-sterile i

Note: Product availability may vary. These styles serve as examples only. For tailored recommendations for your unique needs and applications, please request an AnsellGUARDIAN® assessment.

STATIC PROTECTION

Electrostatic discharge (ESD) if not contained or controlled can be the cause of major disruption and damage to micro-electronic components or be the cause of ignition during powder processing, so it's imperative that the PPE worn by workers (carrying out applications with a risk of generating electrostatic discharge) are anti-static including garments, overshoes and gloves. Ansell have a range of solutions which have been tested to and pass anti-static standards.

Nitrilite™ 93-311

[More Info](#) 

Non-sterile disposable nitrile cleanroom glove

- **Class 100 (ISO 5) cleanroom compatibility:** Assured cleanliness
- **Latex-free nitrile formulation:** Type I latex allergy risks eliminated
- **No chemical accelerators:** Lower susceptibility to Type IV allergies and sensitivities



EN ISO 374-1:2016
Type B



J K T

EN ISO 374-5



VIRUS

Nitrilite™ 93-401

[More Info](#) 

Non-sterile disposable nitrile cleanroom glove

- **Class 10 (ISO 4) cleanroom compatibility:** Assured cleanliness
- **Low ionic content and particulate levels:** Superb product protection
- **Latex-free, accelerator-free:** Type I and Type IV allergy risks eliminated



EN ISO 374-1:2016
Type B



J K T

EN ISO 374-5



VIRUS

MICROFLEX® SUPRENO™ SE SU-690

[More Info](#) 

Robust nitrile exam gloves, ensuring hand protection for diverse applications

- **Robust nitrile formulation:** For durable personal protection
- **Advanced barrier protection:** Low 0.65 AQL for allowable pinholes
- **Textured fingertips:** Allows for assured grip in diverse conditions



TouchNTuff® 92-600

[More Info](#) 

An unparalleled combination of chemical splash protection, comfort and durability

- **Advanced chemical resistance:** With TNT™ Technology for ultimate protection
- **Superior comfort:** Extra-soft, smooth feel, boosting comfort for extended wear
- **Outstanding durability:** Proprietary nitrile resists rips and tears



EN ISO 374-1:2016
Type B



J K P T

EN ISO 374-5



VIRUS



ISO 18889

Glove Style	Color	Material	Glove Length	Glove Thickness	AQL	Cleanroom Class	Cuff Style	Anti-Static	Size Click for more
Nitrilite™ 93-311	White	Nitrile	12"	Palm: 4.3mil Finger: 6.7mil	2.5	Class 100/ISO 5	Beaded	Yes EN1149	XS - XL 
Nitrilite™ 93-401	White	Nitrile	12"	Palm: 4.3mil Finger: 6.3mil	1.5	Class 10/ISO 4	Beaded	Yes EN1149	XS - XL 
MICROFLEX® SUPRENO™ SE SU-690	Violet Blue	Nitrile	9.6"	Palm: 4.3mil Finger: 7.1mil	0.65	—	—	Yes	XS - XL 
TouchNTuff® 92-600	Green	Nitrile	9.5"	Palm: 4.9 mil Finger: 5.5mil	4.0	—	—	Yes EN1149	XS - 2XL 

Note: Product availability may vary. These styles serve as examples only. For tailored recommendations for your unique needs and applications, please request an AnsellGUARDIAN® assessment.

STATIC PROTECTION

BioClean-D™ COVERALL WITH HOOD BDCHT

[More Info](#)

Non-sterile cleanroom coverall with hood

- **Protective flap and zip with sealable cover:** Lower contamination risks
- **CleanTough™ fabric:** For lightweight, low-linting cleanroom safety
- **Elasticated with thumb loops:** For enhanced fit and a secure hold



TYPE 5



TYPE 6



BioClean-D™ OVERBOOTS BDOB-L

[More Info](#)

Non-sterile cleanroom longer length overboots

- **Longer length (500mm):** For greater protective coverage
- **Low-linting lightweight material:** Lower contamination risks
- **Tie fastenings and slip-resistant sole:** Secure fit and safe use



TYPE PB (6)



PARTIAL BODY PROTECTION ONLY



EN 1149-5



Bodysuit Style	Color	Garment	Fabric	Seam	Design Features by Model Configuration	Cleanroom Class	Size Click for more
BioClean-D™ COVERALL WITH HOOD BDCHT	White	Coverall with Hood	Polyethylene/ non-woven polypropylene laminate	Bound	The BioClean-D™ Coverall with Hood BDCHT disposable coverall features a hood and front zip with a sealable cover and a protective flap, reducing the risk of contaminant leakage through the seams	Class 10/ISO 4	XS - 4XL 
Boot Style	Color	Fabric	Seam	Design Features by Model Configuration	Cleanroom Class	Size Click for more	
BioClean-D™ OVERBOOTS BDOB-L	White	Polyethylene/ non-woven polypropylene laminate	Bound	At 500mm in length, BioClean-D™ Overboots BDOB-L are longer than the standard alternative, offering wearers more comprehensive personal protection	Class 10/ISO 4	Standard Height Extra Long Height 	

Note: Product availability may vary. These styles serve as examples only. For tailored recommendations for your unique needs and applications, please request an AnsellGUARDIAN® assessment.

ALLERGY PROTECTION

Occasionally, wearing glove products can cause issues with the health of our skin. Skin allergies from adverse reactions to glove products are generally classified into three distinct types - immediate hypersensitivity/Type I, delayed hypersensitivity/Type IV or irritant contact dermatitis. Latex allergy, also known as Type I allergy, is the reaction to the residual allergenic protein present in natural rubber latex products. Type IV allergies mainly occur due to a reaction to chemical accelerators used in the glove manufacturing process. Ansell leaches and washes gloves to minimize the accelerator residue in the final products or eliminate the accelerator from the manufacturing process altogether if possible.

TouchNTuff® 73-500 [More Info](#)

Sterile disposable neoprene (polychloroprene) cleanroom glove

- **Class 100 (ISO 5) cleanroom compatibility:** Assured cleanliness
- **Latex-free, chemical accelerator-free:** Fewer allergy risks
- **Hard-wearing neoprene formulation:** Chemical splash resistance and durability



TouchNTuff® Dermashield™ 73-701 [More Info](#)

Sterile disposable neoprene (polychloroprene) cleanroom glove

- **Neoprene formulation:** Excellent puncture resistance and durability
- **SUREFIT™ Technology:** Lesser risk of cuff roll-down
- **Latex-free, chemical accelerator-free:** Type I and Type IV allergy risks eliminated



BioClean™ EMERALD BENS [More Info](#)

Sterile disposable nitrile cleanroom glove

- **Double gloving properties:** Ideal as undergloves for double gloving requirements
- **Enhanced dexterity:** Hand specific design for ergonomic fit and better handling during skilled tasks
- **Sterility Assurance:** Gamma sterilized with sterility assurance level (SAL) of 10⁻⁶



MICROFLEX® Sensation™ N73 [More Info](#)

Nitrile disposable gloves specially designed to protect while minimizing type iv skin allergies

- **Low dermatitis potential:** To prevent type IV skin allergies
- **Thin and lightweight:** For excellent tactile sensitivity
- **Textured fingertips:** For secure handling of tools and materials



Glove Style	Color	Material	Glove Length	Glove Thickness	AQL	Cleanroom Class	Cuff Style	Anti-Static	Size Click for more
TouchNTuff® 73-500	Cream	Neoprene (Polychloroprene)	12"	Palm: 5.9mil Finger: 6.29mil	0.65	Class 100/ISO 5 & EU GMP Grade A	Beaded with SUREFIT™ Technology	No	5.5 - 9 
TouchNTuff® Dermashield™ 73-701	Green	Neoprene (Polychloroprene)	11.6"	Palm: 7.0mil Finger: 7.5mil	0.65	Class 100/ISO Class 5 & EU GMP Grade A/B and other sterile cleanrooms	Straight with SUREFIT™ Technology	No	6 - 9 
BioClean™ EMERALD BENS	Green	Nitrile	12"	Palm: 4.33mil Finger: 5.9mil	1.5	Class 10/ISO Class 4 & EU GMP Grade A/B and other sterile cleanrooms	Beaded	Yes	6 - 10 
MICROFLEX® Sensation™ N73	Blue	Nitrile	9.5"	Palm: 2.4 mil Finger: 3.9mil	1.5	–	–	Yes	XS - XL 

Note: Product availability may vary. These styles serve as examples only. For tailored recommendations for your unique needs and applications, please request an AnsellGUARDIAN® assessment.

ERGONOMIC PROTECTION

Workers within a Life Sciences environment usually wear gloves to protect either themselves, the research being carried out or products being manufactured from contamination. Prolonged muscle effort from spending hours carrying out repetitive tasks and small hand movements could cause muscle strain leading to glove induced hand fatigue and, over time, may increase the risk of musculoskeletal disorders.

TouchNTuff® 83-500 [More Info](#)

Sterile Disposable Polyisoprene Cleanroom Glove

- **Ultra-soft polyisoprene:** "Second skin" comfort and feel
- **Latex-free design:** Latex Type I allergy risks eliminated
- **Gamma sterilization:** A sterility assurance level (SAL) of 10^{-6}



MICROFLEX® XCEED® XC-310 [More Info](#)

Ergonomically designed to reduce hand fatigue

- **ERGOFORM™ Technology:** Ergonomic design supports musculoskeletal health
- **Extra durability:** stronger formulation to protect against rips and tears while keeping the same tactile sensitivity
- **Made without sulfur-based accelerators:** To protect from allergic reactions

* See specially marked packaging



MICROFLEX® MidKnight™ TOUCH 93-732 [More Info](#)

Nitrile exam gloves with excellent dexterity along with enhanced comfort, fit and feel

- **Thin durable design:** Offers strength, dexterity and tactility
- **Black nitrile:** Hides oils, bodily fluids and other stains
- **ERGOFORM™ Technology:** Ergonomic design supports musculoskeletal health



MICROFLEX® Ultraform™ UF-524 [More Info](#)

Offers excellent dexterity and comfortable hand protection with an ergonomic design

- **ERGOFORM™ Technology:** Ergonomic design supports musculoskeletal health
- **Thin and soft design:** For superior tactility and comfort
- **Available in half sizes:** Ensures a perfect fit



Glove Style	Color	Material	Glove Length	Glove Thickness	AQL	Cleanroom Class	Cuff Style	Anti-Static	Size Click for more
TouchNTuff® 83-500	White	Polyisoprene	12"	Palm: 8.26mil Finger: 9.05mil	0.65	Class 100 (ISO 5)	Beaded with SUREFIT™ Technology	No	5.5 - 9 
MICROFLEX® XCEED® XC-310	Blue	Nitrile	9.5"	Palm: 2.8mil Finger: 4.3mil	0.65	—	—	Yes	XS - XL 
MICROFLEX® MidKnight™ TOUCH 93-732	Black	Nitrile	9.6"	Palm: 2.8mil Finger: 4.3mil	1.5	—	—	No	XS - 2XL 
MICROFLEX® Ultraform™ UF-524	Cobalt	Nitrile	9.1"	Palm: 2.4 mil Finger: 3.9mil	1.5	—	—	No	XS, S, M, L, XL 

Note: Product availability may vary. These styles serve as examples only. For tailored recommendations for your unique needs and applications, please request an AnsellGUARDIAN® assessment.

ORDER NUMBER:

To make a purchase, kindly contact your VWR sales representative. Click the links below to get more information on product and sizing.

PRODUCT PROTECTION

AccuTech® 91-225		BioClean™ N-PLUS BNPS		Nitrilite™ 93-401		TouchNTuff® 93-700		BioClean-D™ DROP-DOWN STERILE COVERALL WITH HOOD S-BDSH	
6	10818-406	6	75834-048	XS	47748-230	S	89402-740	XS	75845-800
6.5	10818-408	6.5	75834-050	S	47748-232	M	89402-742	S	75845-796
7	10818-410	7	75834-052	M	47748-234	L	89402-744	M	75845-794
7.5	10818-412	7.5	75834-054	L	47748-236	XL	89402-746	L	75845-792
8	10818-414	8	75834-056	XL	47748-238			XL	75845-798
8.5	10818-416	8.5	75834-058					2XL	75845-802
9	10818-418	9	75834-060					3XL	75845-804
		10	75834-118					4XL	75845-806
								5XL	76271-424
								6XL	76271-426
								7XL	76271-428
								8XL	76271-366

BioClean-D™ COVERALL WITH HOOD AND INTEGRATED BOOTS – STERILE S-BDFC		BioClean™ CLEARVIEW GOGGLES BCGS1		BioClean™ LOOPED FACEMASK STERILE OR NON-STERILE MEA210-1	
S	75982-206	One Size	75834-128	One Size	75836-208
M	75982-204				
L	75982-202				
XL	75982-208				
2XL	75982-210				
3XL	75982-212				
4XL	75982-214				

ORDER NUMBER:

To make a purchase, kindly contact your VWR sales representative. Click the links below to get more information on product and sizing.

CHEMICAL PROTECTION

MICROFLEX® 93-360		MICROFLEX® MidKnight™ MK-296		TouchNTuff® 92-600		TouchNTuff® 93-300		TouchNTuff® Dermashield™ 73-701	
6	76289-850	XS	94001-364	XS	77587-114	S	10049-908	6	89402-798
7	76289-852	S	94001-366	S	34800-500	M	10049-910	6.5	89402-800
8	76289-854	M	94001-368	M	34800-502	L	10049-913	7	89402-802
9	76289-856	L	94001-370	L	34800-504	XL	10049-915	7.5	89402-804
10	76289-858	XL	94001-372	XL	34800-506			8	89402-806
11	76289-860	2XL	94001-374	2XL	77587-116			8.5	89402-808
								9	89402-810

BIOLOGICAL PROTECTION

BioClean-C™ APRON WITH SLEEVES BCAS		MICROFLEX® SUPRENO™ SE SU-690		BioClean™ ADVANCE BASL		BioClean™ FUSION S-BFAP STERILE POLYCHLOROPRENE GLOVES		BioClean-C™ APRON WITH SLEEVES BCAS	
S	75834-066	XS	32916-668	6.5	75982-318	5.5	75982-304	S	75834-066
M	75834-064	S	32916-660	7	75982-320	6	75982-306	M	75834-064
L	75834-062	M	32916-662	7.5	75982-322	7	75982-308	L	75834-062
		L	32916-664	8	75982-324	8	75982-310		
		XL	32916-666	8.5	75982-326	9	75982-312		
				9	75982-348				

BioClean-C™ SLEEVE COVERS BCSC

Sterile [75834-076](#)

Non-sterile [75834-130](#)

ORDER NUMBER:

To make a purchase, kindly contact your VWR sales representative. Click the links below to get more information on product and sizing.

STATIC PROTECTION

Nitrilite™ 93-311		Nitrilite™ 93-401		MICROFLEX® SUPRENO™ SE SU-690		TouchNTuff® 92-600		BioClean-D™ COVERALL WITH HOOD BDCHT	
XS	47748-210	XS	47748-230	XS	32916-668	XS	77587-114	XS	75972-558
S	47748-212	S	47748-232	S	32916-660	S	34800-500	S	75972-554
M	47748-214	M	47748-234	M	32916-662	M	34800-502	M	75972-552
L	47748-216	L	47748-236	L	32916-664	L	34800-504	L	75972-550
XL	47748-218	XL	47748-238	XL	32916-666	XL	34800-506	XL	75972-556
						2XL	77587-116	2XL	75972-560
								3XL	75972-562
								4XL	75972-656

ALLERGY PROTECTION

BioClean-D™ OVERBOOTS BDOB-L		TouchNTuff® 73-500		TouchNTuff® Dermashield™ 73-701		BioClean™ EMERALD BENS		MICROFLEX® Sensation™ N73	
Standard Height	75972-644	5.5	10054-585	6	89402-798	6	75972-582	XS	10159-898
		6	10054-587	6.5	89402-800	6.5	75972-584	S	10159-900
Extra Long Height	77474-000	6.5	10054-589	7	89402-802	7	75972-586	M	10159-902
		7	10054-593	7.5	89402-804	7.5	75972-588	L	10159-904
		7.5	10054-595	8	89402-806	8	75972-590	XL	10159-906
		8	10055-023	8.5	89402-808	8.5	75972-592		
		8.5	10055-025	9	89402-810	9	75972-594		
		9	10055-027			10	75972-648		

ERGONOMIC PROTECTION

TouchNTuff® 83-500		MICROFLEX® XCEED® XC-310		MICROFLEX® MidKnight™ TOUCH 93-732		MICROFLEX® Ultraform™ UF-524	
5.5	76521-768	XS	89174-538	XS	76459-130	XS	89235-576
6	76521-770	S	89174-540	S	76459-132	S	89235-578
6.5	76521-772	M	89174-542	M	76459-134	M	89235-580
7	76521-774	L	89174-544	L	76459-136	L	89235-582
7.5	76521-776	XL	89174-546	XL	76459-138	XL	89235-584
8	76521-778			2XL	76459-140		
8.5	76521-780						
9	76521-782						

AnsellGUARDIAN®: Personalized Risk Assessments for a Safer Future

We know that every company is unique and so is every worker. Performed by our safety experts, AnsellGUARDIAN® is a personalized service that helps our customers to improve their safety, productivity, and cost performance. Using a combination of 45 years of safety assessment experience with a data-driven methodology, we provide you with a unique assessment tailored to your needs.

WHAT WE DO

Safety & Compliance

We provide a personalized risk management solution that leads to improved worker safety, injury reduction and increased regulatory compliance.

Cost Performance

We advise on business performance improvements that result in lower overall costs for your company.

Productivity

We deliver best practice recommendations to optimize your PPE dispensing, improve your company's output and eliminate waste, leading to an increase in productivity.

Training

Where needed, we also work alongside you to implement PPE change management to effectively train your workforce.

Assessments conducted in
35+ countries
industries

Saving our partners

\$260m+
averaging

~\$20k per
customer

AnsellGUARDIAN® **SAFETY.**
TAILOR-MADE.

* Data based upon AnsellGUARDIAN® global database metrics since 2014. Guardian savings exclude assessments where preexisting PPE costs were not provided to Ansell for comparison. Final results may vary.

HOW WE DO IT

Process:



Data
Collection

>



In-Plant
Assessment*

>



Analysis and
Recommendations

>



Validation
Testing

>



Implementation

>



Training

>



Expansion

*Virtual assessment also possible

Result oriented

Our simple and clear processes focus on the most relevant areas to deliver our best practices recommendations for one single application or even an entire site.

Tailor-made

Every customer is different, and so are their safety needs. Our safety experts assess each situation individually, using the data provided and a proven process. This results in a unique, tailor-made assessment to meet your objectives.

Transformational

Our safety experts support the full implementation of our assessment with samples and education of your workers, to ensure the success of PPE change management.

Ongoing partnership

We start our partnership by analyzing, benchmarking, implementing and improving your PPE-related operations and performance. One assessment at a time, we assess your current and future safety needs.



Sustainable product selection

Ansell Earth is a framework built on five product life cycle pillars: material, manufacturing, packaging, use, and end of use, all of which help Ansell customers make informed portfolio decisions and achieve their sustainability goals.



**Contact your VWR representative for ordering
or more information.**

ABOUT ANSELL

Ansell is a global leader in safety solutions and an integrated manufacturer of personal protection equipment for healthcare and industrial workplaces. Each day, over 10 million workers in more than 100 countries trust their safety to us. By helping workers and organizations everywhere stay two steps ahead of challenges — from workplace safety to sustainable work practices — **ANSELL IS LEADING THE WORLD TO A SAFER FUTURE.**

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