



Product Catalogue
Chemical Protective Apparel



About Microgard Limited



Microgard Limited is a leading manufacturer of chemical protective clothing, introducing new technology and designs to the market to improve wearer protection and comfort for over 35 years

Microgard Limited was one of the world's first manufacturers of limited life chemical protective clothing. Established in 1975, the company has built its reputation on introducing new technology and designs to the market to improve wearer protection and comfort. Today, millions of MICROGARD® and MICROCHEM® products are worn around the globe, protecting people throughout industry and the public sector.

Protecting people while they work in dirty or hazardous environments has always been the focus of Microgard Limited. Whether you are working with liquid or solid chemicals, asbestos, paint, oil, grease, viruses and blood borne pathogens, or one of the countless other workplace contaminants in evidence today, trust Microgard Limited to help keep you protected.

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Product Range Overview

MICROGARD® / MICROCHEM® Fabric Technology



Utilising the latest in microfibre technology, MICROGARD® 1500 is highly breathable and has been proven to filter 100% of particles down to 3 microns in size, making it ideal for protecting workers against asbestos and other relatively large hazardous particulates.



Utilising the latest in microfibre technology, MICROGARD® 1500 PLUS is highly breathable and anti-static. It has been proven to filter 99.9% of particles down to 3 microns in size, making it ideal for protecting workers against low hazard pharmaceutical powders and other relatively large hazardous particulates.



MICROGARD® 2000 provides both protection and comfort with the latest microporous film laminate technology, providing exceptional liquid and particulate protection. Ideal for a wide range of industrial applications where protection from low hazard liquid spray and fine particulates is required.



MICROGARD® 2300 fabric is comprised of a polyethylene (PE) barrier coating with a bi-component nonwoven inner layer; the combination of which provides an excellent barrier to many harmful chemicals, while being lightweight and yet relatively strong and durable.



A unique material offering exceptional mechanical strength, liquid and particulate protection. MICROGARD® 2500 achieves the highest classifications for protection from biological agents, in accordance with EN 14126: 2003 and ASTM F1671.



MICROCHEM® 3000 is one of the lightest and most comfortable chemical protective fabrics on the market today. This durable 3 layer fabric provides an extremely effective barrier against both inorganic chemicals and biological hazards.



MICROCHEM® 4000 is an exceptional chemical barrier against many concentrated organic chemicals, inorganic chemicals and biological agents. Tested against over 180 chemicals, including chemical warfare agents, this multi layer fabric is renowned for being lightweight yet durable and comfortable.



MICROCHEM® 5000 reaches new levels in chemical protection. This highly visible, innovative, multi-layer fabric is strong, durable and suitable for workers in extremely hazardous areas, including HAZMAT response teams.



MICROGARD® 1500 PLUS FR is a highly breathable, flame-retardant and anti-static SMMS polypropylene nonwoven designed for protection from particulates and light, non-flammable liquid spray or splash.



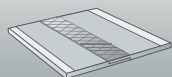
MICROGARD® FR is a flame-retardant material designed to be worn over woven thermal protective garments such as NOMEX® or PYROVATEX®, offering protection from particulates and light liquid splash without compromising worker protection in the event of a flash fire.



MICROCHEM® CFR is a flame-retardant material designed to be worn over woven thermal protective garments such as NOMEX® or PYROVATEX®, offering protection from particulates and pressurised liquid spray without compromising worker protection in the event of a flash fire.

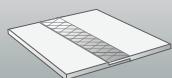
MICROGARD® / MICROCHEM® Seam Technology

Microgard Limited use five different seam types for its range of protective clothing depending on the fabric and the final application for which it will be used.



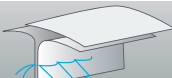
Ultrasonically Welded & Taped Seams

A feature throughout the MICROCHEM® 4000 & 5000 range, this seam technology is our highest barrier to liquid and particulates.



Ultrasonically Welded Seams

Provides a strong liquid and particle barrier.



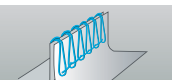
Stitched & Taped Seams

Internal stitching which is overtaped to offer increased strength and an effective barrier to liquids and particulates.



Bound Seams

An overlay of material similar to the base fabric is lock-stitched in place. This technology provides superior strength, liquid and particle barrier when compared to a traditional stitched seam.



Stitched Seams







Microgard Limited utilise 3-thread overlocking technology, which offers an excellent balance of a strong seam with good particle barrier. Internal stitching reduces the risk of any potential linting from the thread.

To assist you with the selection of chemical protective clothing the EU has developed six categories for “types” of chemical protective clothing.








Certification to a particular type offers an indication of your suit’s protection against a particular hazard (gas, liquid or dust). As a manufacturer it is our responsibility to ensure that MICROGARD[®] and MICROCHEM[®] products meet the requirements of these standards, where applicable.

Please be aware that conformance to these type standards does not mean that your suit is 100% impervious to your hazard. Under this testing, suits are only required to meet the minimum performance requirements specified. In the case of the Type 5 particulate test, for example suits are allowed individual leakages of up to 30%, providing the average for the suits tested is less than 15%.

Microgard Limited manufacture products according to ISO 9001, thus ensuring as far as is reasonably possible they aim to consistently achieve the desired protection level. For more information visit www.microgard.com

Current European “Types” of Chemical Protective Clothing		
EN “Types”	Definition	Symbol*
EN 943-1 & 2 “Type 1”	Gas Tight Chemical Protective Clothing Protective clothing against liquid and gaseous chemicals, aerosols and solid particulates	 TYPE 1
EN 943-1 “Type 2”	Non Gas Tight Chemical Protective Clothing Suits which retain positive pressure to prevent ingress of dusts, liquids and vapours	 TYPE 2
EN 14605 “Type 3”	Liquid Tight Suits Suits which can protect against strong and directional jets of liquid chemical	 TYPE 3
EN 14605 “Type 4”	Spray Tight Suits Suits which offer protection against saturation of liquid chemicals	 TYPE 4
EN ISO 13982-1 “Type 5”	Dry Particulate Protection Suits which provide protection to the full body against airborne solid particulates	 TYPE 5
EN 13034 “Type 6”	Reduced Spray Suits Suits which offer limited protection against a light spray of liquid chemicals	 TYPE 6

Disclaimer
MICROGARD[®]/MICROCHEM[®] garments are available for most applications. However please note that a detailed assessment of the nature of the hazard and the working environment should be undertaken prior to the selection of appropriate PPE. Microgard Ltd provides the information in this product catalogue to assist you with selecting the correct product, but responsibility for the correct choice of PPE remains with the user.

Additional Standards achieved by the MICROGARD [®] / MICROCHEM [®] product range		
Standard	Definition	Symbol*
EN 1073-1**	Ventilated protective clothing against radioactive particulate contamination	 EN 1073
EN 1073-2**	Protective clothing against radioactive particulate contamination	
EN 14126	Protective clothing against infective agents (“Type” prefixed with “-B” [i.e. Type 3-B] indicates approval to this European Norm)	 EN 14126
EN 1149-5	Protective Clothing with electrostatic properties***	 EN 1149
DIN 32781	Protective Clothing. Protective suits against pesticides	 DIN 32781
EN ISO 14116	Protective Clothing Limited flame spread materials, material assemblies and clothing	 EN ISO 14116
EN 12941	Respiratory protective devices. Powered filtering devices incorporating a helmet or a hood	 EN 12941
EN 14594	Respiratory Protective Devices Continuous flow compressed airline breathing apparatus.	 EN 14594

* Type approvals do not necessarily apply to accessories. Always refer to the garment label and instructions for use document which will indicate the protection level offered.

** Gives no protection against radioactive radiation

*** Always ensure the garment and wearer are properly grounded

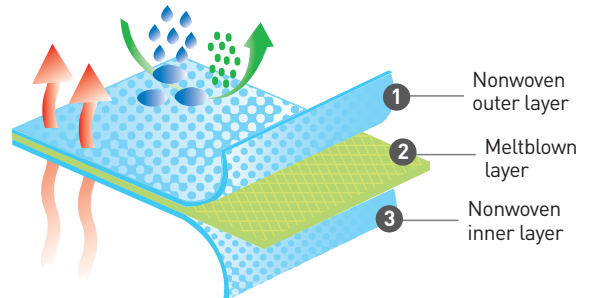
MICROGARD® 1500

MICROGARD®
1500



MICROGARD® 1500 coveralls have been designed for workers involved in the stripping, clear up or handling of asbestos, general maintenance, construction and contract cleaning.

Asbestos fibres, such as Chrysotile, are typically 3-5 microns in size. The SMS fabric used in the construction of MICROGARD® 1500 coveralls has been proven to filter 100% of particles larger than 3 microns*



Features & Benefits

Protection - Proven to filter 100% of particles >3 microns*

Comfort - Air and water vapour permeable ("breathable") to help reduce the risk of heat stress

Silicone Free - Critical in spray painting applications

Optimised body fit - Improves wearer comfort and safety.

*JSTIIF particle penetration test

Protection Levels & Additional Properties

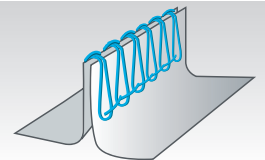


Applications

- Asbestos related work
- Handling powders
- General maintenance
- Construction

Stitched Seams

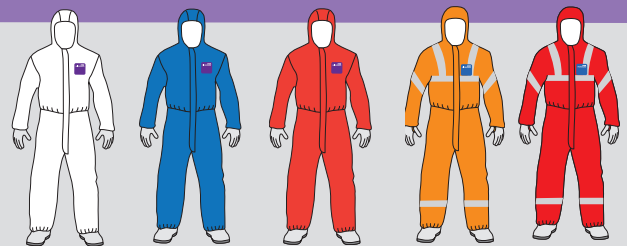
Combining strength with particle barrier



Styles 15-138 • 15-113

Suit Features

- 3-piece hood
- Elasticated hood, wrists, waist and ankles
- 2-way front zipper with resealable storm flap



Style 15-138

Style 15-113

MICROGARD® 1500 (White)	
Fabric Filtration Efficiency*	
Particle Size	%
0.3-0.5 µm	98.7
0.5-1.0 µm	99.2
1.0-3.0 µm	99.7
3.0-5.0 µm	100
>5.0 µm	100

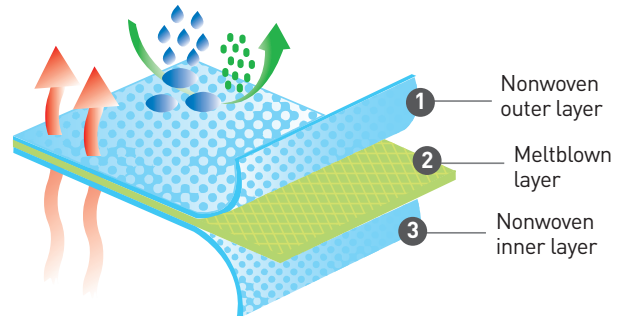
PART NUMBER	COLOUR	SIZE
MG15-138WH	WHITE	SM-3XL
MG15-138NA	NAVY	SM-4XL
MG15-138RD	RED	SM-5XL
MG15-113OR	ORANGE (Reflective Tape)	SM-5XL
MG15-113RD	RED (Reflective Tape)	SM-5XL

MICROGARD® 1500 PLUS



MICROGARD® 1500 PLUS is a highly breathable anti-static SMS fabric which utilises the latest developments in micro-fibre technology to ensure good filtration efficiency.

SMS fabrics are a particularly good barrier against particulates such as asbestos, brick dust and cement dust, and will provide protection from light aerosol mists; as found in some paint spray environments.



Features & Benefits

Protection - Proven to filter 99.9% of particles >3 microns*

Comfort - Air and water vapour permeable ("breathable") to help reduce the risk of heat stress

Silicone Free - Critical in spray painting applications

Anti-static - Tested according to EN 1149-5

Optimized Body Fit - Improves wearer comfort and safety

*JSTIIF particle penetration test

Protection Levels & Additional Properties



TYPE 5



TYPE 6



EN 1073-2



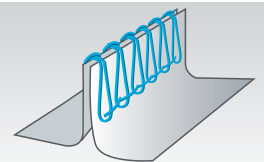
EN 1149-5

Applications

- Asbestos related work
- Handling powders
- General maintenance
- Construction
- Pharmaceutical industries
- Wood and metal processing
- Touch-up paint spraying
- Fibreglass / resin applications / ceramic fibres

Stitched Seams

Combining strength with particle barrier



Styles 15-111 • 15-113

Suit Features

- 3-piece hood
- Elasticated hood, wrists, waist and ankles
- 2-way front zipper with resealable storm flap
- Finger loops
- Anti-static treatment
- Style 113 features silver reflective tape for enhanced visibility



Style 15-111



Style 15-113

MICROGARD® 1500 PLUS (White)	
Fabric Filtration Efficiency*	
Particle Size	%
0.3-0.5 µm	97.8
0.5-1.0 µm	98.7
1.0-3.0 µm	99.4
3.0-5.0 µm	99.9
>5.0 µm	99.9

PART NUMBER	COLOUR	SIZE
MG15P-111OR	ORANGE	SM-6XL
MG15P-113LB	LIGHT BLUE (Reflective Tape)	SM-3XL

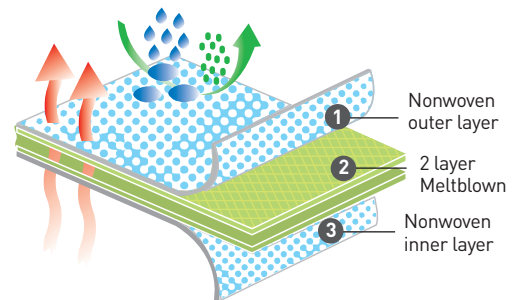
* JSTIIF Test Method

MICROGARD® 1500 PLUS FR



MICROGARD® 1500 PLUS FR is a highly breathable, flame retardant and anti-static SMMS polypropylene nonwoven designed for protection from particulates and light, non-flammable liquid spray or splash*.

Intended to be worn over heat and flame protective clothing, MICROGARD® 1500 PLUS FR offers wearers protection from particulates (Type 5) and non-flammable, non-pressurised liquid sprays or splashes (Type 6)*



*Must be worn over thermal protective garments, such as NOMEX® or PYROVATEX®, and never be worn next to the skin.

Features & Benefits

Protection - Flame retardant and anti-static SMMS nonwoven provides a good barrier to particulates and low hazard liquid sprays or splashes

Comfort - Air and water vapour permeable ("breathable") to help reduce the risk of heat stress

Anti-static - Tested according to EN1149-5

Optimized Body Fit - Ensures full freedom of movement when worn over heat and flame protective clothing [EN ISO 14116 Index 2 or above].

Protection Levels & Additional Properties



TYPE 5



TYPE 6



EN 1073-2



EN ISO 14116
INDEX 1/0/0



EN 1149-5

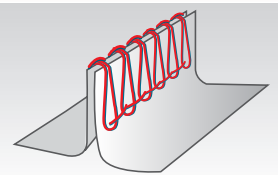
Applications

- Petrochemical Industry
- Industrial Cleaning
- Utilities
- General Maintenance

MICROGARD® 1500 PLUS FR should never be worn in isolation for flame retardant protection. Always wear over the top of garments which achieve EN ISO 14116 Index 2 or above.

Stitched Seams

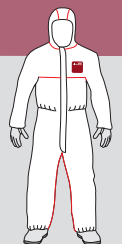
Combining strength with particle barrier



Style 15FR-111

Suit Features

- 3-piece hood
- 2-way front zipper with resealable storm flap
- Finger loops
- Elasticated wrists, waist and ankles
- Red stitching for ease of identification



PART NUMBER	COLOUR	SIZE
MG15FR-111WH	WHITE	M-3XL

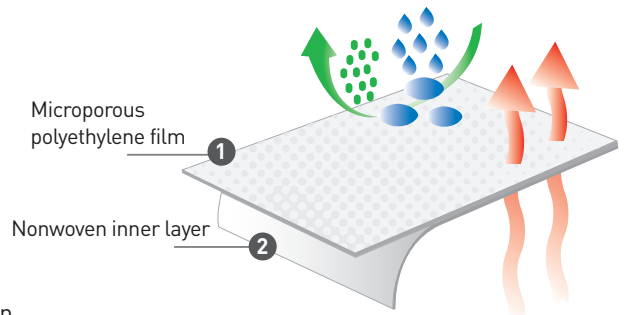
MICROGARD® 2000 STANDARD



MICROGARD® 2000 STANDARD provides both protection and comfort with exceptional liquid and particulate protection. Ideal for a wide range of industrial applications.

MICROGARD® 2000 is designed to allow water vapour (perspiration) to escape from the suit yet will withstand saturation of liquid chemicals and filter 100% of particulates down to 0.01 microns in size*

The use of a high quality two-way stretch microporous film provides an effective liquid and particle barrier combined with a high water vapour transmission rate from inside to outside.



Features & Benefits

Protection - Excellent liquid penetration resistance and barrier to fine particulates (>0.01 microns*)

Comfort - Moisture vapour permeable ("breathable") to help reduce the risk of heat stress

Silicone free - Critical in paint spraying applications

Low linting - Reduces the risk of fibre contamination in some critical areas

Optimised body fit - Improves wearer comfort and safety

Anti-static - Tested according to EN 1149-5

*EMSL test method

Applications

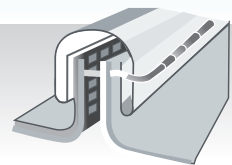
- Pharmaceutical industries
- Agriculture
- Cleanrooms
- Paint spraying
- Crime scene investigation
- Veterinary services

Protection Levels & Additional Properties



Bound Seams

Superior strength, liquid and particle barrier



Styles 20-111 • 20-113

Suit Features

- 3-piece hood
- Elasticated hood, wrists, waist and ankles
- 2-way front zipper with resealable storm flap
- Style 113 features silver reflective tape for enhanced visibility



Style 20-111

Style 20-113

Specialist Approvals



Biological Agents
EN 14126:2003



Suitable for Ex-Zones

PART NUMBER	COLOUR	SIZE
MG20-111WH	WHITE	SM-7XL
MG20-113WH	WHITE (Reflective Tape)	SM-3XL

MICROGARD® 2000 COMFORT



MICROGARD® 2000 COMFORT has been specifically designed for those working in warmer climates or warm working environments to help reduce the risk of heat stress.

The critical areas to the front of the garment (including the hood, arms and legs) are MICROGARD® 2000 offering a high level of liquid and particle protection with a low level of water vapour resistance. Water vapour resistance according to EN 31092 of Ret <15*

The back panel is MICROGARD® 1500 PLUS fabric which is air and water vapour permeable. This panel allows airflow around the suit, increasing wearer comfort. Air permeability result according to EN ISO 9237 of 160 l/m².s

Bound seams ensure spray-tight protection to the front of the garment and excellent overall particle protection.

* Ret is a measurement of a materials resistance to moisture vapour transfer. The lower the value the less resistance there is and therefore the more breathable the fabric.

Protection Levels & Additional Properties



TYPE 5



TYPE 6



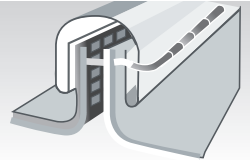
EN 1073-2



EN 1149-5

Bound Seams

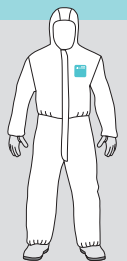
Superior strength, liquid and particle barrier



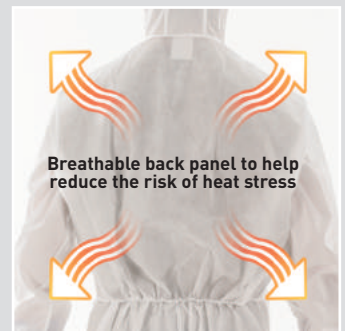
Style 20-129

Features & Benefits

- **Protection** - Hood, arms, legs and front torso in MICROGARD® 2000 fabric
- **Comfort** - Air and water vapour permeable ("breathable") to help reduce the risk of heat stress
- **Silicone Free** - Critical in spray painting applications
- **Anti-static** - Tested according to EN 1149-5
- 3-piece hood
- Elasticated hood, wrists, waist and ankles
- 2-way front zipper with resealable storm flap
- Breathable SMS back panel



Finger Loops



Breathable SMS back panel to help reduce the risk of heat stress

Breathable SMS back panel

Applications

- Pharmaceutical industry
- Cleanrooms
- Paint spraying
- Veterinary services
- Pest control

PART NUMBER	COLOUR	SIZE
MG20-129WH	WHITE	SM-3XL

MICROGARD® 2000 Accessories

**MICROGARD®
2000**



MICROGARD® SURE STEP Overshoes

The MICROGARD® SURE STEP Overshoes feature a revolutionary monofilament coating that offers excellent anti-slip properties (confirmed by independent laboratory tests).

This unique coating also makes MICROGARD® SURE STEP stronger and more durable than traditional CPE overshoes, resulting in a safer yet more economical product.

Features include

- Liquid resistant material
- Lint free
- Generous sizing to accommodate shoe size 42-48
- Anti-static to EN1149-1
- Available in white or blue

PART NUMBER	COLOUR	SIZE
MG20SS-403WH	WHITE	42-46

Style **20-209** Lab Coat



Style **20-301** Trousers



Style **20-209** Lab Coat

- Front zip fastening
- Left breast pocket
- Lower right pocket
- Bound seams

PART NUMBER	COLOUR	SIZE
MG20-209WH	WHITE	S-5XL

Style **20-301** Trousers

- Elastication to waist and ankles
- Bound seams

PART NUMBER	COLOUR	SIZE
MG20-301WH	WHITE	L-XL

Style **20-400** Overshoes

- Elasticated opening
- Bound seams

PART NUMBER	COLOUR	SIZE
MG20-400WH	WHITE	42 - 46

Style **20-407** Overboots - ESD

- Tie fastening
- Elastic to top of boot
- Bound seams
- ESD PVC Sole

PART NUMBER	COLOUR	SIZE
MG20-407WH	WHITE	42 - 46

Style **20-414** Overboots

- Elasticated opening and tie fastening.
- Bound Seams

PART NUMBER	COLOUR	SIZE
MG20-414WH	WHITE	42 - 46

Style **20-600** Oversleeves

- Elasticated at both ends
- Bound seams

PART NUMBER	COLOUR	SIZE
MG20-600WH	WHITE	One size fits all

Style **20-400** Overshoes



Style **20-407** Overboots - ESD



Style **20-414** Overboots



Style **20-600** Oversleeves



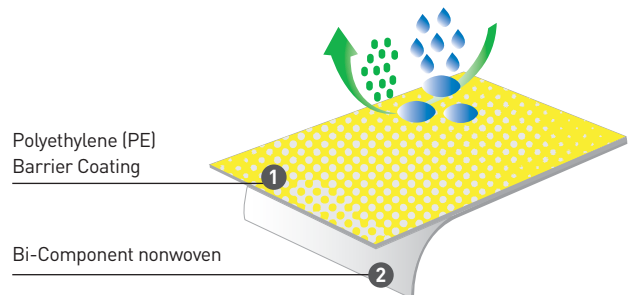
MICROGARD® 2300 PLUS

MICROGARD®
2300
PLUS



MICROGARD® 2300 PLUS is an entry level Type 3 chemical protective coverall for workers involved in environmental clean-up, general industrial and chemical handling applications.

MICROGARD® 2300 fabric is comprised of a polyethylene (PE) barrier coating with a bi-component nonwoven inner layer. The combination of which provides an excellent barrier to many harmful chemicals, while being lightweight and yet relatively strong and durable.



Features & Benefits

- **Protection** - Polycoated bi-component barrier resists permeation of numerous liquid chemicals
- **Highly visible** - Bright yellow for improved worker safety
- **Comfort** - Lightweight yet relatively strong and durable
- **Anti-static** - Tested according to EN 1149-5
- **Designed to protect** - Typical coverall features include respirator fit hood and a zip flap with self-adhesive tape closure

Protection Levels & Additional Properties

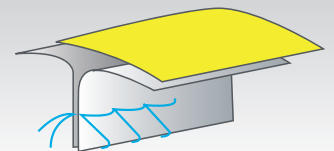


Applications

- Environmental clean-up
- Sewage purification installations
- Industrial and Chemical manufacturing
- Industrial Cleaning

Stitched & Taped Seams

Internal stitching which is overtaped to offer increased strength and an effective barrier to liquids and particulates.



Style 23-111

Suit Features

- 3-piece hood
- Elasticated hood, wrists, waist and ankles
- 2-way front zipper with resealable storm flap
- Finger loops



3-piece hood



Fingerloops



Specialist Approvals



Biological Agents
EN 14126:2003

PART NUMBER	COLOUR	SIZE
MG23P-111YE	YELLOW	SM-3XL

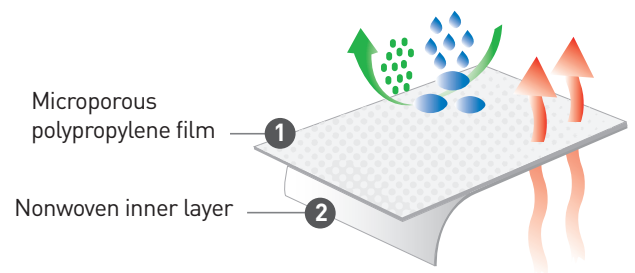
MICROGARD® 2500 STANDARD

MICROGARD®
2500
STANDARD



MICROGARD® 2500 is a unique material offering exceptional mechanical strength, liquid and particulate protection.

MICROGARD® 2500 is a durable microporous polypropylene laminate which provides an excellent barrier to chemical spray and infective agents. This specialist fabric is also breathable to help ensure user comfort. The fabric's physical strength and flexibility ensures protection and comfort even in the harshest environments.



Features & Benefits

Protection - Achieves the highest classifications for protection from biological agents in accordance with EN 14126:2003 and ASTM F 1671 for penetration of blood, body fluids and blood-borne pathogens

Comfort - Moisture vapour permeable ("breathable") to help reduce the risk of heat stress

Anti-static - Tested according to EN 1149-5

Low linting - Reduced risk of contamination in critical areas

Applications

- Viral contaminated areas (including Avian Influenza)
- Biological protection
- Emergency medical response
- Medical research
- Chemical and pharmaceutical industries
- Low pressure industrial cleaning
- Industrial paint spraying
- Nuclear industry

Protection Levels & Additional Properties



TYPE 4-B



TYPE 5-B



TYPE 6-B



EN 1073-2



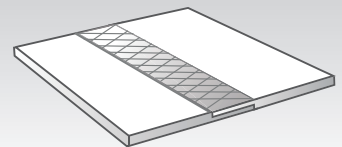
EN 1149-5



EN 14126

Ultrasonically Welded Seams

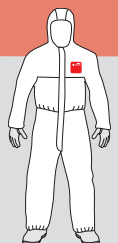
Provides a strong liquid and particle barrier



Styles 25-111

Suit Features

- 3-piece hood
- Elasticated hood, wrists, waist and ankles
- 2-way front zipper with resealable storm flap
- MICROGARD® 2500 PLUS is approved to Type 3-B certification.



Specialist Approvals



Biological Agents
EN 14126:2003

PART NUMBER	COLOUR	SIZE
MG25-111WH	WHITE	SM-3XL

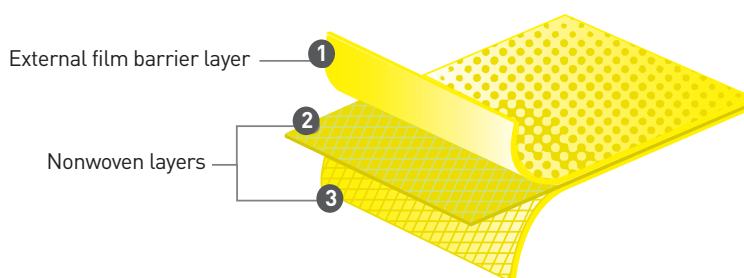
MICROCHEM® 3000

MICROCHEM®
3000



MICROCHEM® 3000 is one of the lightest and most comfortable chemical protective materials on the market today. This durable multi-layer fabric provides an extremely effective barrier against both inorganic chemicals and biological hazards.

One of the lightest and most comfortable chemical protective garments on the market today this durable multi-layer fabric provides an extremely effective barrier against both inorganic chemicals and biological hazards.



Features & Benefits

Protection - Multi-layer barrier fabric effective against numerous chemicals

Highly visible - Bright yellow for improved worker safety

Comfort - Lightweight yet durable

Anti-static - Tested according to EN 1149-5

Designed to protect - Typical coverall features include dual zip systems and double cuffs

Applications

- Chemicals
- Oil and petrochemicals
- Pharmaceutical
- Food industry (caustic clean downs)
- Sewage purification installations
- Industrial and tank cleaning
- Mining

Protection Levels & Additional Properties



TYPE 3-B



TYPE 4-B



TYPE 5-B



EN 14126



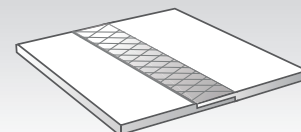
EN 1073-2



EN 1149-5

Ultrasonically Welded Seams

Provides a strong liquid and particle barrier



Specialist Approvals



Biological Agents
EN 14126:2003



Suitable for Ex-Zones

Style 30-111

Suit Features

- 2 piece hood
- Double zip closure
- Double cuffs
- Elasticated hood, waist, double cuffs and ankles



PART NUMBER	COLOUR	SIZE
MG30-111YE	YELLOW	SM-3XL

MICROCHEM® 3000 Accessories

MICROCHEM®
3000

Style **30-213** Apron



Style **30-214** Apron with sleeves



Style **30-213**

Apron

- Tie fastening to waist
- 100 cm long tie fastening

PART NUMBER	COLOUR	SIZE
MG30-213YE	YELLOW	One size fits all

Style **30-214**

Apron with Sleeves

- Rear velcro fastening
- Elasticated wrists
- Welded seams

PART NUMBER	COLOUR	SIZE
MG30-214YE	YELLOW	S-5XL

Style **30-400**

Overshoes

- Elasticated opening
- Welded seams

PART NUMBER	COLOUR	SIZE
MG30-400YE	YELLOW	42 - 46

Style **30-400** Overshoes



Style **30-406** Overboots



Style **30-406**

Overboots

- Elastic to top of boot
- Tie fastening
- Welded seams

PART NUMBER	COLOUR	SIZE
MG30-406YE	YELLOW	42 - 46

Style **30-413**

Sockguard

- Elastic to top of boot
- Tie fastening
- Welded seams

PART NUMBER	COLOUR	SIZE
MG30-413YE	YELLOW	One size fits all

Style **30-413** Sockguard

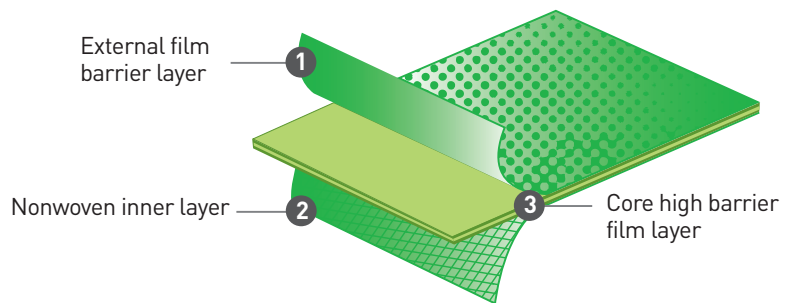


For more information on our range of accessories, or if you can't see the accessory you are looking for, please contact Guardian Safety customer services Phone: **02 9604 8111**
Email: sales@guardiansafety.com.au
or visit www.guardiansafety.com.au



MICROCHEM® 4000 is designed to provide an exceptional barrier against organic and inorganic chemicals and biological agents.

A unique multi-layer barrier fabric renowned for its lightweight, yet robust textile feel and exceptional barrier to organic & inorganic chemicals.



Features & Benefits

Protection - Permeation tested against over 180 chemicals, including chemical warfare agents

Comfort - Textile like inner improves wearer acceptance

Anti-static - Tested according to EN 1149-5

Designed to protect - Typical coverall features include dual zip systems and double cuffs

Applications

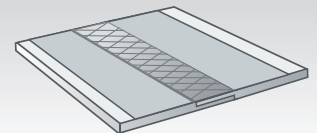
- Chemical handling / transportation
- Oil-based mud protection
- Hazardous waste remediation
- Sewage purification installations
- Industrial / tank cleaning
- HAZMAT Emergency Response (i.e. Level B)
- Pharmaceutical
- Mining
- Agriculture

Protection Levels & Additional Properties



Ultrasonically Welded & Taped Seams

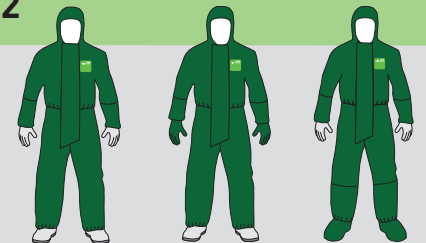
A feature throughout the MICROCHEM® 4000 range, this seam technology is our highest barrier to liquids and particulates.



Styles 40-111 • 40-121 • 40-122

Suit Features

- 2-piece hood
- Double zip closure
- Double cuffs with knitted inner cuff
- Elasticated hood, outer cuffs, waist and ankles
- Style 121 features attached Ansell Barrier Glove
- Style 122 features Integrated socks with boot overlap



Style 40-111 Style 40-121 Style 40-122

Specialist Approvals



Biological Agents
EN 14126:2003



Suitable for Ex-Zones

PART NUMBER	COLOUR	SIZE
MG40-111GR	GREEN	SM-3XL
MG40-121GR	GREEN	SM-3XL
MG40-122GR	GREEN	SM-3XL

MICROCHEM® 4000 APOLLO

MICROCHEM®
4000
APOLLO



Developed with the UK Fire & Rescue services **MICROCHEM® 4000 APOLLO** is a fully encapsulated liquid tight chemical suit designed for use in conjunction with self contained breathing apparatus (SCBA).

Protection Levels & Additional Properties



TYPE 3-B



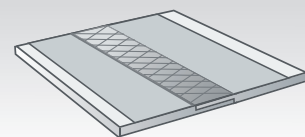
TYPE 4-B



EN 14126

Ultrasonically Welded & Taped Seams

A feature throughout the MICROCHEM® 4000 range, this seam technology is our highest barrier to liquid and particulates.



Applications

- Chemicals
- Oil and petrochemicals
- Pharmaceutical
- Agriculture
- Sewage purification installations
- Industrial and tank cleaning
- Emergency Services (HAZMAT, CBRN)

...may also be suitable for use in Level B applications

(according to US Environmental Protection Agency (EPA) & NFPA guidelines).

Contact the Microgard tech team for full details or email technical@microgard.com

Style 40-126

Suit Features

- Rear entry double zip system
- Rear mounted BA (breathing apparatus) pouch – universal fit with most BA
- Attached socks with boot overlap
- Attached Ansell Barrier® Gloves
- Exhalation valves
- Clear face visor
- Ultrasonically welded and taped seams
- Bat-wing design enables air gauge checking within the suit
- Chest strap for DSU (Distress Signal Unit)
- Adjustable internal support braces



Decontamination process example



SCBA rear pouch



Rear mounted BA pouch

Specialist Approvals



Biological Agents
EN 14126:2003



Suitable for Ex-Zones

PART NUMBER	COLOUR	SIZE
MG40-126GR	GREEN	SM-3XL

Style **40-212** Apron



Style **40-215** Apron with sleeves



Style **40-406** Overboots



Style **40-230** Jacket



Style **40-301** Trousers



Style **40-212**

Apron

- Tie fastening to waist
- 100cm long tie fastening

PART NUMBER	COLOUR	SIZE
MG40-212GR	GREEN	One size fits all

Style **40-215**

Apron with Sleeves

- Velcro fastening to neck
- Tie fastening at the waist
- Double cuff with knitted inner cuff
- Welded and taped seams

PART NUMBER	COLOUR	SIZE
MG40-215GR	GREEN	S-5XL

Style **40-230**

Jacket

- Velcro fastening to neck
- Tie fastening at the waist
- Double cuff with knitted inner cuff
- Welded and taped seams

PART NUMBER	COLOUR	SIZE
MG40-230GR	GREEN	S-5XL

Style **40-301**

Trousers

- Elastication to waist and ankles
- No pockets
- Welded and taped seams

PART NUMBER	COLOUR	SIZE
MG40-301GR	GREEN	S-2XL

Style **40-406**

Overboots

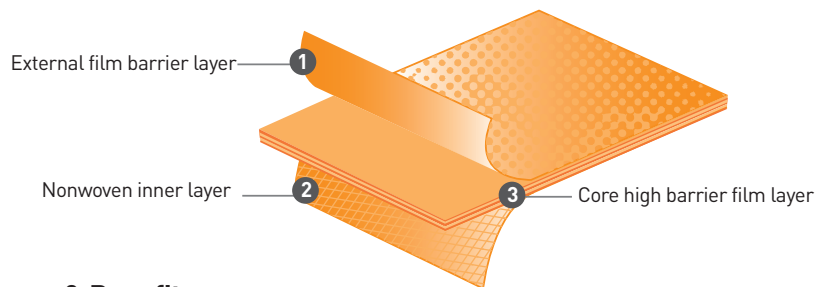
- Elastic to top of boot
- Tie fastening
- Welded seams

PART NUMBER	COLOUR	SIZE
MG40-406GR	GREEN	42-46



MICROCHEM® 5000 reaches new levels in chemical protection and has been engineered to protect. The highly visible multi-layer fabric is strong, durable and suitable for workers in extremely hazardous areas, including HAZMAT response teams.

This highly visible innovative material is strong, durable and suitable for workers in extremely hazardous areas, including HAZMAT response teams.



Features & Benefits

Performance - Barrier to numerous organic and inorganic chemicals and biological hazards

Comfort - Multi-layer material which is lightweight, yet strong and durable

Highly visible - Bright orange colour for improved worker safety

Protection - >480 minutes breakthrough time against 14 of 15 chemicals listed in EN ISO 6529

Anti-static - Tested according to EN 1149-5

Designed to protect - Innovative design features include liquid-tight dual zip designs without the need for additional taping

Applications

- Chemicals
- Oil and petrochemicals
- Pharmaceuticals
- Mining
- Agriculture
- First response
- Fire service
- Industrial and tank cleaning
- Sewage purification installations

Protection Levels & Additional Properties



TYPE 3-B



TYPE 4-B



TYPE 5-B



EN 1073-2



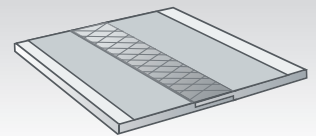
EN 1149-5



EN 14126

Ultrasonically Welded & Taped Seams

A feature throughout the MICROCHEM® 5000 range, this seam technology is our highest barrier to liquids and particulates.



Style 50-111

Suit Features

- 2 piece hood
- Double zip closure
- Double cuffs with knitted inner cuff
- Elasticated hood, outer cuffs, waist and ankles



Specialist Approvals



Biological Agents
EN 14126:2003



Suitable for Ex-Zones

PART NUMBER	COLOUR	SIZE
MG50-1110R	ORANGE	SM-3XL



MICROGARD® FR is a flame retardant material designed to be worn over woven thermal protective garments such as NOMEX® or PYROVATEX®, offering protection from particulates and pressurised liquid spray without compromising worker protection in the event of a flash fire*.

MICROGARD® FR will not compromise wearer protection in the event of a flash fire.

MICROGARD® FR offers wearers protection from liquid chemicals to EN Type 6 and particulates to EN Type 5, and peace of mind to workers in potentially explosive/flamable environments. To decrease the risk of burn injury wear over thermal protective workwear*

Wear over a thermal protective garment (EN ISO 14116 Index 2 or above) in areas with a risk of flash fire and where protection from low level liquid spray and particulates is required.

*Must be worn over thermal protective garments, such as NOMEX® or PYROVATEX®, and never be worn next to the skin.

Features & Benefits

Protection - Flame retardant treated Sontara/wood pulp/polyester fabric with good barrier to particulates and low level liquid spray

Comfort - Air and water vapour permeable ('breathable') to help reduce the risk of heat stress

Optimized Body Fit - Improves wearer comfort and safety

Protection Levels & Additional Properties



TYPE 5



TYPE 6



EN 1073-2



EN ISO 14116
INDEX 1/0/0



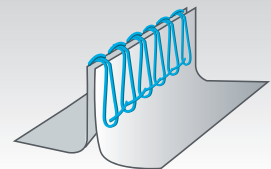
EN 1149-5

Applications

- Oil and petrochemicals
- Petroleum distribution and processing
- Utilities

Stitched Seams

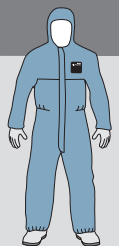
Combining strength with particle barrier



Style FR-111

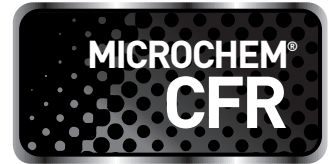
Suit Features

- 2-piece hood
- Elasticated hood, wrists, waist and ankles
- External overlapped seams



PART NUMBER	COLOUR	SIZE
MGFR-111BL	DENIUM BLUE	M-3XL

MICROGARD® FR should never be worn in isolation for flame retardant protection. Always wear over the top of garments which achieve EN ISO 14116 Index 2 or above.



MICROCHEM® CFR is a flame retardant material designed to be worn over woven thermal protective garments such as NOMEX® or PYROVATEX®, offering protection from particulates and pressurised liquid spray without compromising worker protection in the event of a flash fire*.

In high risk areas MICROCHEM® CFR is proven to protect

MICROCHEM® CFR offers wearers protection from liquid chemicals to EN Types 3 & 4 and peace of mind to workers in potentially explosive/flammable environments, by decreasing the risk of burn injury when worn over thermal protective workwear*

Wear over a thermal protective garment [EN ISO 14116 Index 2 or above] to provide chemical spray protection according to Types 3 and 4.

*Must be worn over thermal protective garments, such as NOMEX® or PYROVATEX®, and never be worn next to the skin.

Features & Benefits

Protection - Flame retardant treated fabric with PVC barrier film offering wearers protection from liquid chemicals to EN Type 3 & 4

Versatile - In most applications where there is the need for protection from chemical spray without compromising wearer protection in the event of a flash fire

Optimized Body Fit - Improves wearer comfort and safety

Highly visible - Highly visible bright red colour to improve worker safety

Protection Levels & Additional Properties

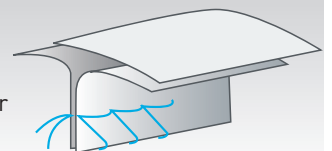


Applications

- Oil and petrochemicals
- Petroleum distribution and processing
- Utilities

Stitched & Taped Seams

Increased strength and an effective liquid & particle barrier



Style CFR-111

Suit Features

- 2 piece hood
- Elasticated hood, wrists and ankles
- Double zip closure

(Style 113 available featuring silver reflective tape for enhanced visibility.)



PART NUMBER	COLOUR	SIZE
MGCFR-111RD	RED	SM-3XL

MICROCHEM® CFR should never be worn in isolation for flame retardant protection. Always wear over the top of garments which achieve EN ISO 14116 Index 2 or above.

PAPR

MICROGARD®
2500
PLUS PAPR

MICROCHEM®
3000
PAPR

MICROCHEM®
4000
PAPR

Providing complete protection from liquid and particulate hazards!

Ventilated suits with filtered air and MICROGARD®/MICROCHEM® technology providing head and body protection from hazardous substances.



Features & Benefits

- **Double elasticated cuffs** - Enables a liquid tight connection with chemical protective gloves (additional taping or Glove Link is required)
- **Air permeable SMS collar** - Maintains sufficient air in the breathing zone whilst allowing excess air to flow into the body of the suit
- **Four exhalation valves** - Exhalation valves fitted to the rear of the suit allows CO₂ to escape and equalises pressure within the suit, allowing a full range of movement without risk of excessive pressure causing harm to the suit or the wearer
- **Model 700, 701 & 704 - Attached socks with elasticated boot overflap** - Socks are designed to be worn inside chemical protective boots with the leg overflap worn outside to reduce the potential for chemical ingress. Model 705 - Attached sock boots with anti-slip PVC sole version also available.
- **Panoramic visor design** - Ensures a good field of vision for the wearer
- **Emergency rip cord** - Permits rapid doffing of the suit in cases of emergency or undue distress to the wearer



TYPE 3-B



TYPE 4-B



TYPE 5-B



EN 1073-2



EN 1149-1



EN 14126



EN 12941

Respiratory protective device

Approved to EN 12941 TH3 with an Assigned Protection Factor (APF) of 40*

*UK APF according to Annex C of EN529:2005. The APF means the factor by which the hazard is reduced, i.e. how many times cleaner the air is inside the hood than outside

Sundström



SR500 / SR500EX PAPR fan units & filters**

Style 700

SCOTT
SAFETY



Proflow SC / EX fan units and filters**

Style 701

MICROGARD® & MICROCHEM® PAPR coveralls are certified for use in combination with these Sundstrom and Scott fan units and filters.

**Please note: Sundström and Scott fan units, breathing hoses and filters sold separately. For advice please contact your distributor.

AIRline

MICROGARD®
2500
PLUS AIRline

MICROCHEM®
3000
AIRline

MICROCHEM®
4000
AIRline

Complete protection from respiratory and skin hazards!

Ventilated / Air-Supplied suits compatible with continuous flow compressed airline breathing apparatus for protection from hazardous liquids and particulates.

Features & Benefits

- **Double elasticated cuffs** - Enables a liquid tight connection with chemical protective gloves (additional taping or Glove Link is required)
- **Air permeable SMS collar** - Maintains sufficient air in the breathing zone whilst allowing excess air to flow into the body of the suit
- **Four exhalation valves** - Exhalation valves fitted to the rear of the suit allows CO₂ to escape and equalises pressure within the suit, allowing a full range of movement without risk of excessive pressure causing harm to the suit or the wearer
- **Model 750 - Attached socks with elasticated boot overflap** - Socks are designed to be worn inside chemical protective boots with the leg overflap worn outside to reduce the potential for chemical ingress.
Model 752 - Attached sock boots with anti-slip PVC sole version also available.
- **Panoramic visor design** - Ensures a good field of vision for the wearer
- **Emergency rip cord** - Permits rapid doffing of the suit in cases of emergency or undue distress to the wearer



TYPE 3



EN 1073-1



EN 1149-5

CE marked to EN 1073-1:1998
with a nominal protection factor
of 50,000 (Class 5 of 5)

Please Note: Type 3 applies to MICROCHEM® 3000 and 4000 versions only.



EN 14594

Respiratory protective device

AIRline suits are certified for use in combination with the below belt mounted, continuous flow airline regulator.

Sundström

Sundstrom SR507

Features:

- Flow meter
- Warning whistle
- Belt mounted control valve
- Airflow rate 175 to 260 l/min
- Working pressure 5-7 bar (500-700 kPa)
- Working temperature: -10°C to +50°C

www.srsafety.com



Style 750 & 752



Australian Distributor



Head Office - New South Wales:

Guardian Safety Pty Ltd
38 Chifley Street,
Smithfield, NSW 2164
Phone: 02 9604 8111
Fax: 02 9725 1507

Victorian Office:

Guardian Safety Pty Ltd
17 The Crossway
Campbellfield, Vic 3061
Phone: 03 9357 7667
Fax: 03 9357 8664

Email: sales@guardiansafety.com.au
Web: www.guardiansafety.com.au



MICROGARD® and MICROCHEM® garments are designed and manufactured under an ISO 9001 quality control approved system.

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