



Product Catalogue
Chemical Protective Apparel


MICROGARD®
High Performance Protection in Comfort



MICROGARD® and MICROCHEM® products are manufactured in accordance with the International Quality Standard ISO 9001 at our wholly owned state-of-the-art manufacturing plant in Xiamen (China).

All MICROGARD® and MICROCHEM® products are designed to meet or exceed the requirements of the European PPE Directive 89/686/EEC for chemical protective clothing.

The combination of our ISO 9001 accredited manufacturing environment and the expertise of our UK based design, product development and technical departments means that users can be assured that all MICROGARD® and MICROCHEM® products achieve the standards they were designed to meet.

The management systems of Microgard Limited & Microgard Xiamen Limited are assessed and certified by SGS (notified body CE0120) as meeting the requirements of PPE Directive 89/686/EEC (Article 11B) to manufacture personal protective equipment.

Microgard Ltd
ISO 9001 Certificate
Article 11B Certificate

Microgard Xiamen
ISO 9001 Certificate
Article 11B Certificate





Leading manufacturers of chemical protective clothing, introducing new technology and designs to the global market to improve wearer protection and comfort for over 30 years

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, MICROGARD® apparel can help keep you protected.

Global solutions

MICROGARD® products have been extensively tested to achieve ASTM, ANSI, European Norms (EN), Japanese Industrial Standards (JIS) and the Korean Occupational Safety & Health Association (KOSHA) guidelines on chemical protective clothing – and we work extensively with our distributors to ensure conformance with all relevant local test methods and standards.

Experts in manufacturing and design

The combination of our quality controlled manufacturing environment and the expertise of our ISO 9001: 2008 accredited design, product development and customer service departments mean that users can be assured that all MICROGARD® protective apparel achieve the standards they were designed to meet.

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Versatile chemical protective apparel

SYMBOL KEY



Resists direct high pressure jet spray (Type 3)



Resists saturating liquid (Type 4)



Protection from airborne solid particulates (Type 5)



Repellent to light liquid spray/splash (Type 6)



Protection from radioactive particulates (Gives no protection against radioactive radiation) (EN 1073-2)



Anti-static properties



Protection from blood & blood borne pathogens (ASTM F1671/EN 14126)



Flame retardant (ISO 14116)



Protection from dilute pesticide spray (DIN 32781)



Breathable particle, dust and dirt protection.



Breathable particle, dust and dirt protection. Anti-static SMS fabric.



2000 protection on the front side with a breathable 1500 Plus back panel.



Low hazard chemical splash protection with good overall particle barrier.



Low linting with low hazard chemical spray and splash protection. Passes ASTM F1670/1671 tests for resistance to blood & blood borne pathogens.



Protection and comfort for those exposed to viruses, bacteria and blood borne pathogens. Passes ASTM F1671.



Provides an excellent barrier to low hazard chemical spray and infective agents



Breathable particle dust and dirt protection combined with flame retardance.



Low concentration inorganic chemical spray protection combined with flame retardance.



Concentrated inorganic chemicals and biological hazards.

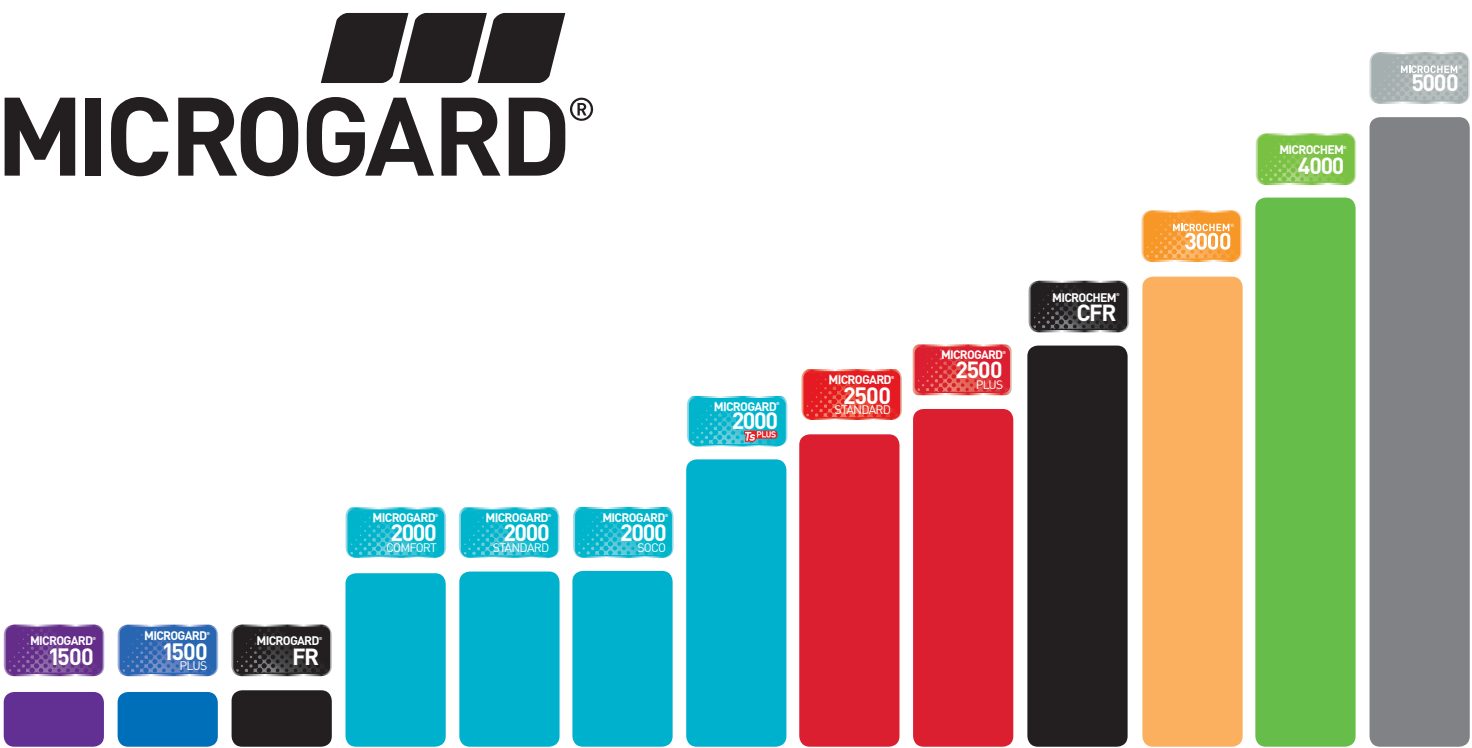


Organic chemicals, highly concentrated inorganic chemicals and biological hazards.

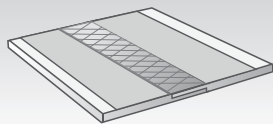


Organic chemicals, highly concentrated inorganic chemicals and biological hazards.

6 MICROGARD® Product Range Overview

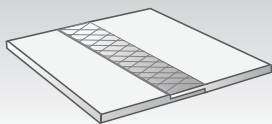


MICROGARD® Seam Technology



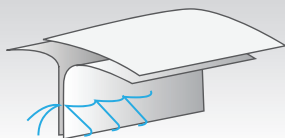
Ultrasonically Welded & Taped Seams

A feature throughout the MICROGARD® 4000 & 5000 ranges, this seam technology is our highest barrier to liquids and particulates.



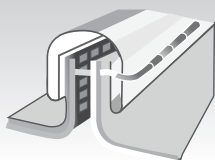
Ultrasonically Welded Seams

Provides a strong liquid and particle barrier.



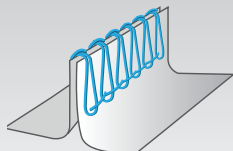
Serged & Taped Seams

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. The bound seam on MICROGARD®2000 STANDARD has been proven to pass the high level water spray test.



Serged Seams

MICROGARD® 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.



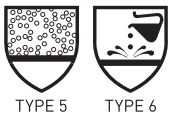
MICROGARD®
1500

Also available in Night Vis with reflective tape

MICROGARD®
1500
PLUS

1500 – Highly breathable SMS fabric which utilises the latest developments in micro-fibre, multilayer spunbond technology to ensure good filtration efficiency

1500 PLUS – Highly breathable and anti-static SMS fabric which utilises the latest developments in micro-fibre, multilayer spunbond technology to ensure good filtration efficiency



TYPE 5 TYPE 6

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

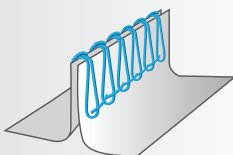
Silicone Free – Critical in spray painting applications

Optimized Body Fit – Improves wearer comfort and safety

Typical Applications

- Asbestos Related Work
- Handling Powders
- General Maintenance
- Construction
- Laboratories
- Pharmaceutical Industries

Serged Seams
Combining strength with particle barrier



Colors: White/Red/Navy

*JSTIF Test Method



TYPE 5 TYPE 6 EN 1073-2 EN 1149-1

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

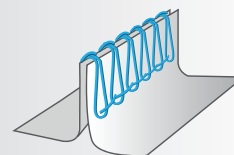
Optimized Body Fit – Improves wearer comfort and safety

Anti-Static – Tested according to AATCC 76

Typical Applications

- Handling powders
- Aerospace
- Laboratories
- Pharmaceutical Industries
- Spray Painting

Serged Seams
Combining strength with particle barrier



Colors: White/Light Blue/Navy/Orange

*Light Blue and Orange Ex-stock
*JSTIF Test Method



MICROGARD®
2000
STANDARD



Also available in Night
Vis with reflective tape

2000 STANDARD- Breathable,
microporous film laminate technology
provides liquid and particle protection



Features & Benefits

Protection – Exceptional particle and spray protection

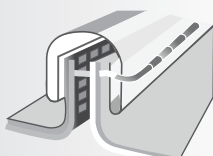
Comfort – Breathable microporous film laminate technology

Silicone Free – Critical in spray painting applications

Anti-Static – Tested according to AATCC 76

Optimized Body Fit – Improves wearer comfort and safety

Bound Seams
Superior strength,
liquid and particle
barrier



Colors: White/Green

* White only Ex-stock

Typical Applications

- Agriculture
- Paint Spraying
- Pharmaceutical Industries
- Fiberglass product manufacturing
- Boat and shipbuilding
- Mining





MICROGARD®
2000
COMFORT



MICROGARD®
2000
Ts PLUS

2000 COMFORT- Provides spray tight protection where you need it most. Engineered for increased wearer comfort and acceptability

2000 Ts PLUS – A great all rounder! Low linting, silicone free with good protection from biological agents, pesticides, particles, fibres and low hazard liquid chemical spray



Features & Benefits

Protection – Hood, arms, legs & front torso in 2000 fabric

Comfort – 1500 PLUS back panel increases air circulation inside the suit to help reduce the risk of heat stress

Silicone Free – Critical in spray painting applications

Low Linting – Reduced risk of contamination in critical areas

Anti-Static – Tested according to AATCC 76

Optimized Body Fit – Improves wearer comfort and safety



Breathable back panel to help reduce the risk of heat stress

Typical Applications

- Spray Painting
- Pharmaceutical Industries
- Fiberglass Manufacturing
- Boat/ship building
- Mining

Bound Seams
Superior strength, liquid and particle barrier



Color: White



Features & Benefits

Protection – Exceptional particle and spray protection. Passed ASTM F1670/1671 testing for resistance to penetration of blood and blood borne pathogens.

Comfort – Breathable microporous film laminate technology

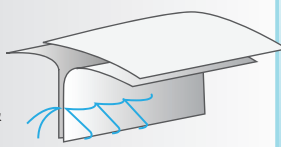
Silicone Free – Critical in spray painting applications

Low Linting – Reduced risk of contamination in critical areas

Anti-Static – Tested according to AATCC 76

Optimized Body Fit – Improves wearer comfort and safety

Serged & Taped Seams
Increased strength and an effective liquid & particle barrier



Colors: White/Green

* White only Ex-stock

Typical Applications

- Pharmaceutical Industries
- Cleanrooms
- Forensics
- Medical Research
- Spray Painting
- Utilities
- Fine particle protection

2500 Range



MICROGARD®
2500
STANDARD



MICROGARD®
2500
PLUS

2500 STANDARD – Protection and comfort for those exposed to viruses, bacteria and blood borne pathogens

(Risk Groups 1 to 2*)



Features & Benefits

Protection – Passes ASTM F 1671 testing for penetration of blood, body fluids and blood borne pathogens

Comfort – Breathable microporous film laminate technology

Low Linting – Reduced risk of contamination in critical areas

Anti-Static – Tested according to AATCC 76

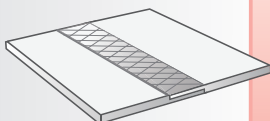
Optimized Body Fit – Improves wearer comfort and safety

* Details of these risk groups, along with their containment measures are found in European Directive 2000/54/EEC (on the protection of workers from the risk related exposure to biological agents at work).

Typical Applications

- Biological Protection
- Emergency Medical Response
- Forensics
- Tank Cleaning
- Medical Research
- Pharmaceutical Industries

Ultrasonically Welded Seams
Provides a strong liquid and particle barrier.



Color: White

2500 PLUS – Provides an excellent barrier to low hazard chemical spray and infective agents



Features & Benefits

Protection – Passes ASTM F 1671 testing for penetration of blood, body fluids and blood borne pathogens

Comfort – Breathable microporous film laminate technology

Low Linting – Reduced risk of contamination in critical areas

Anti-Static – Tested according to AATCC 76

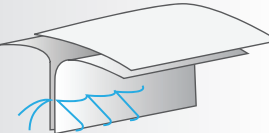
Optimized Body Fit – Improves wearer comfort and safety

* Details of these risk groups, along with their containment measures are found in European Directive 2000/54/EEC (on the protection of workers from the risk related exposure to biological agents at work).

Typical Applications

- Viral Contaminated Areas
- Low Pressure Industrial Cleaning
- Chemical Industries
- Medical Research
- Pharmaceutical Industries

Serged & Taped Seams
Increased strength and an effective liquid & particle barrier

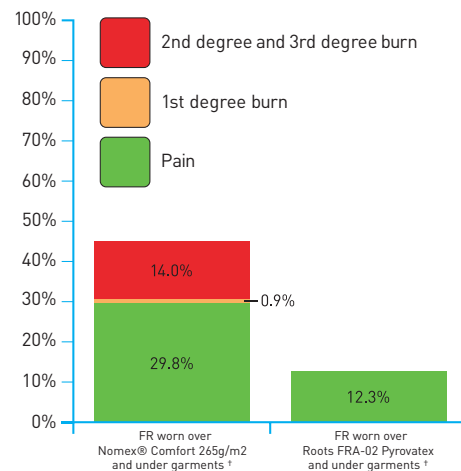


Color: White



**MICROGARD®
FR**

BODY BURN PREDICTION



Mannequin test reports & videos available please email sales@guardiansafety.com to request a copy

FR – To be worn over woven thermal protective garments such as NOMEX® or INDURA®, FR provides particle, dust and dirt protection for workers in potential flash fire environments*



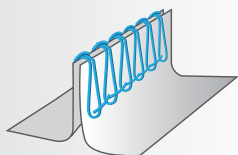
Features & Benefits

Protection – Flame retardant 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

Serged Seams
Combining strength with particle barrier



Typical Applications

- Oil & Petrochemicals
- Utilities

Color: Light Blue



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



CFR – To be worn over woven thermal protective garments such as NOMEX® or INDURA®, CFR provides liquid spray, particle, dust and dirt protection for workers in potential flash fire environments*



TYPE 4



TYPE 5



EN 1073-2



EN533
INDEX 1

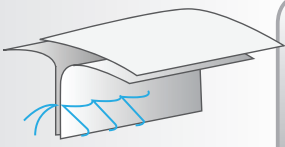


EN 1149-1

Features & Benefits

- Protection** – Flame retardant with good barrier to particulates and liquid spray
- Comfort** – Cloth like inner improves wearer acceptability
- Optimized Body Fit** – Improves wearer comfort and safety

Serged & Taped Seams
Increased strength and an effective liquid & particle barrier



Typical Applications

- Oil & Petrochemicals
- Utilities

Color: Red

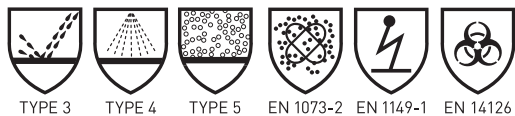
*Must be worn over thermal protective apparel, such as NOMEX® or INDURA®, and never be worn next to the skin.







MICROCHEM® 3000 – One of the lightest and most comfortable chemical protective coveralls on the market today. An effective barrier against inorganic chemicals and biological hazards



Features & Benefits

Protection – Durable multi-layer barrier fabric

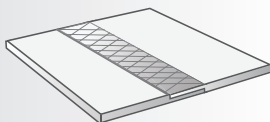
Comfort – Lightweight yet durable

Anti-Static – Tested according to AATCC 76

Designed to protect – Typical coverall features include covered zipper and elasticated wrists and ankles.

For chemical permeation data see page 18 or visit www.microchemusa.com

Ultrasonically Welded Seams
Provides a strong liquid and particle barrier.



Color: Yellow

Typical Applications

- Chemical Handling/Transportation
- Oil-based Mud Protection
- Hazardous Waste Remediation
- Caustic Clean-downs
- Sewage Purification Installations
- Industrial/Tank Cleaning
- Mining
- HAZMAT Emergency Response (i.e. Level B)

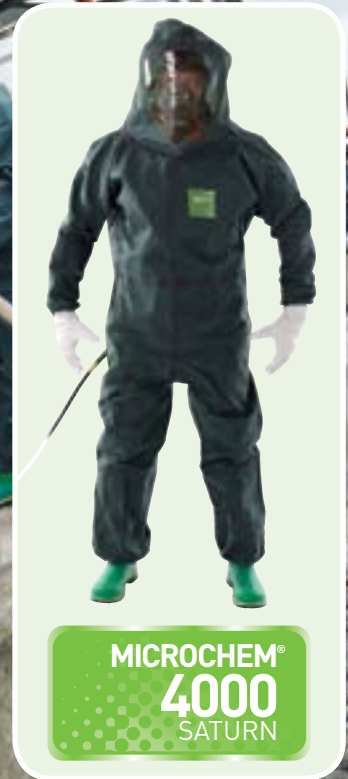




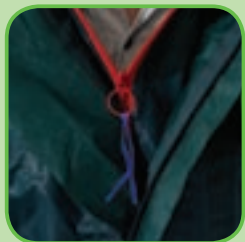
**MICROCHEM®
4000**



**MICROCHEM®
4000
APOLLO**



**MICROCHEM®
4000
SATURN**



Model 122



Model 125



MICROCHEM® 4000 – When you can't compromise on protection!
A unique multi-layer barrier fabric renowned for its lightweight, yet robust textile feel and exceptional barrier to organic & inorganic chemicals



TYPE 3



TYPE 4



TYPE 5



EN 1073-2



EN 1149-1



EN 14126

Features & Benefits

Protection – Permeation tested against over 150 chemicals, including chemical warfare agents

Comfort – Textile like inner improves wearer acceptance

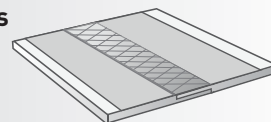
Anti-Static – Tested according to AATCC 76

Designed to protect – Typical coverall features include dual zip systems and double sleeves

For chemical permeation data see page 18 or visit www.microchemusa.com

Sealed Seams

Ultrasonically welded & taped seams ensure liquid tight protection



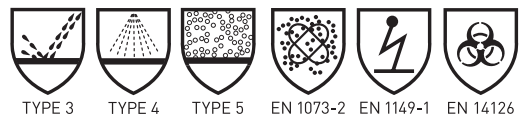
Color: Green

Typical Applications

- Chemical Handling/Transportation
- Hazardous Waste Remediation
- Industrial/Tank Cleaning
- HAZMAT Emergency Response (i.e. Level B)

**MICROCHEM®
5000**

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.



Features & Benefits

Protection – Permeation tested against a wide range of chemicals, including chemical warfare agents

Comfort – Multi-layer fabric which is lightweight, yet strong and durable.

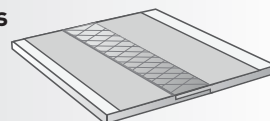
Anti-Static – Tested according to AATCC 76

Designed to protect – Typical coverall features include dual zip systems and double sleeves

For chemical permeation data
see page 18 or visit www.microchemusa.com

Sealed Seams

Ultrasonically welded & taped seams ensure liquid tight protection












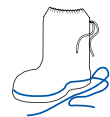








Color: Orange

Typical Applications

- Chemicals
- Pharmaceuticals
- Oil and Petrochemicals
- Mining
- Agriculture
- HAZMAT Emergency Response (i.e. Level B)



A range of standard accessories available in MICROGARD® fabrics

MICROGARD® 2000		MICROGARD® 2500	
Hood – White, model 503 Balaclava style with elasticated face opening. Anti-static treatment		Hood – White, model 503 Balaclava style with elasticated face opening. Anti-static treatment	
Cape Hood, White model 507 Balaclava style with cape covering part of shoulders. Velcro fastening at front. Anti-static treatment		Cape Hood, White model 507 Balaclava style with cape covering part of shoulders. Velcro fastening at front. Anti-static treatment	
Lab coat – White, model 209 Front zip fastening with left breast and lower right pocket. Anti-static treatment		Overshoes – White, model 400 Size 8 1/2 – 11 1/2. Elasticated opening. Anti-static treatment	
Oversleeves – White, model 600 Bound elastication at both ends. Anti-static treatment		Oversleeves – White, model 600 Elasticated at both ends. Anti-static treatment	
Overshoes – White, model 400 Size 8 1/2 – 11 1/2. Elasticated opening. Anti-static treatment		Overboots – White, model 406 Size 8 1/2 – 11 1/2. Elasticated opening with tie fastening. Anti-static treatment	
Overboots – White, model 406 Size 8 1/2 – 11 1/2. Elasticated opening with tie fastening. Anti-static treatment		Overboots – White, model 407 Size 8 1/2 – 11 1/2. PVC Anti-slip sole. Elasticated opening with tie fastening. Anti-static treatment	
Overboots – White, model 406 Size 8 1/2 – 11 1/2. Elasticated opening with tie fastening. Anti-static treatment		SOCO Overboots – White, model 409 Reinforced MICROCHEM® Sure Step non-slip sole, adjustable sizing. Velcro fastening. Anti-static treatment	
MICROCHEM® 3000		MICROCHEM® 4000	
Cape Hood, Yellow model 507 Balaclava style with cape covering part of shoulders. Velcro fastening at front. Anti static treatment		Cape Hood, Green model 507 Balaclava style with cape covering part of shoulders. Velcro fastening at front. Anti-static treatment	
Hospital Gown – Yellow, model 214 Rear Velcro fastening with elasticated wrists. Anti-static treatment		Hospital Gown – Green, model 215 Velcro fastening neck, tie fastening at waist. Double cuffs (Red knitted inner cuff, with elasticated outer cuff)	
Apron – Yellow, model 213 Rear tie fastening. Anti-static treatment		Oversleeves – Green, model 600 Elasticated at both ends. Anti-static treatment	
Oversleeves – Yellow, model 600 Elasticated at both ends. Anti-static treatment		Overboots – Green, model 406 Size 8 1/2 – 11 1/2. Elasticated opening with tie fastening. Anti-static treatment	
Overshoes – Yellow, model 400 Size 8 1/2 – 11 1/2. Elasticated opening. Anti-static treatment		* Not all accessory items available ex-stock	
Overboots – Yellow, model 406 Size 8 1/2 – 11 1/2. Elasticated opening with tie fastening. Anti-static treatment			

For more information on our range of accessories, or if you cannot see the accessory you are looking for, please email us at sales@guardiansafety.com.au

MICROGARD®/MICROCHEM® Physical Performance Data *

Property	Test Method	Units	MICROGARD® 1500 (White)	MICROGARD® 1500 PLUS (White)	MICROGARD® 1500 PLUS (Blue)	MICROGARD® 2000 (White)	MICROGARD® 2000 (Green)	MICROGARD® 2500 (White)	MICROCHEM® 3000	MICROCHEM® 4000	MICROCHEM® 5000
Tensile strength (MD)	ASTM D5034	lbs	41.0	26.3	31.9	19.0	19.1	40.5	44.0	66.6	69.8
Tensile strength (CD)			22.9	20.8	27.1	28.2	23.7	35.5	30.9	51.4	62.7
Tear resistance (MD)	ASTM D5733	lbs	17.3	7.1	7.7	7.9	9.0	16.4	22.8	29.4	12.4
Tear resistance (CD)			10.1	6.4	12.0	12.2	7.8	11.7	9.2	21.1	17.7
Burst strength	ASTM D3787	lbs	23	25	31	25	39	76	135	158	>250
Puncture propagation tear resistance	ASTM D2582	N				21.0	22.6	16.7	30.3	29.4	31.9
Hydrostatic resistance	AATCC 127	cm				>127	>127	>127	>127	>127	>127
Viral penetration resistance	ASTM F1671	Pass/ Fail				Pass	Pass	Pass	Pass	Pass	Pass
Air permeability	ASTM D737	ft3 /ft2	43.8	30.7	22.8						
Moisture vapor transmission	ASTM E96, Method B	g/m ² -24 hr	1399	1380	1374	897	411	804			
Flame spread	16 CFR §1610	sec	IBE	IBE	IBE	11.8	7.2	7.9	7.8	#DNI	#DNI
		(class)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)

* This information reflects laboratory performance of fabrics, not complete garments, under controlled conditions and relates only to the fabric brands/colors detailed. It is intended for information use by persons having the technical skill and expertise required for the evaluation of suitable protective clothing under their specific end-use conditions, at their own discretion and risk. If fabric becomes torn, abraded or punctured, then the user should discontinue use. For information on specific MICROCHEM® fabrics please visit www.microgard.com or contact your distributor.

Chemical Permeation Chart

ASTM F 1001 Recommended Test Battery	CAS Number	MICROCHEM® 3000 Fabric			MICROCHEM® 4000 Fabric			MICROCHEM® 5000 Fabric		
		MDPR ($\mu\text{g}/\text{cm}^2/\text{min}$)	ASTM F739 BDT (mins)	ASTM F739 BT at 0.1 $\mu\text{g}/\text{cm}^2/\text{min}$ (mins)	MDPR ($\mu\text{g}/\text{cm}^2/\text{min}$)	ASTM F739 BDT (mins)	ASTM F739 BT at 0.1 $\mu\text{g}/\text{cm}^2/\text{min}$ (mins)	MDPR ($\mu\text{g}/\text{cm}^2/\text{min}$)	ASTM F739 BDT (mins)	ASTM F739 BT at 0.1 $\mu\text{g}/\text{cm}^2/\text{min}$ (mins)
Acetone (>99wt%)	67-64-1	≤0.08	5	Imm	≤0.08	46	131	0.02	>480	>480
Acetonitrile (99.98 wt%)	75-05-8	≤0.08	Imm	Imm	≤0.08	>540	>540	0.01	>480	>480
Ammonia (anhydrous), 99.99% (Gas)	7664-41-7	≤0.05	Imm	1	≤0.05	5	18	0.03	38	41
1,3-Butadiene	106-99-0				0.011	>540	>540	0.02	>480	>480
Carbon Disulfide	75-15-0		Imm	Imm			2	0.1		277
Chlorine Gas, 99.8%	7782-50-5	≤0.05	9	Imm	≤0.05	42	>540	0.001	>480	>480
Dichloromethane (99.99wt%)	75-09-2	≤0.08	Imm	Imm	≤0.08	Imm	Imm	0.04	19	27
Diethylamine 99.9%	109-89-7	≤0.08	Imm	Imm	≤0.08	Imm	Imm	0.01	>480	>480
Dimethylformamide	68-12-2				0.0094	>540	>540	0.01	>480	>480
Ethyl Acetate (99.98wt%)	141-78-6	≤0.08	Imm	Imm	≤0.08	31	43	0.1		>480
Ethylene Oxide (Gas)	75-21-8				<0.1	>540	>540	0.04	41	72
n-Hexane 99.8%	110-54-3	0.09	Imm	Imm	0.09	>540	>540	0.01	>480	>480
Hydrogen Chloride, 99.0% (Gas)	7647-01-0	≤0.05	Imm	Imm	≤0.05	8	125	0.03		>480
Methanol (>99.5wt%)	67-56-1	≤0.08	Imm	Imm	≤0.08	24	>540	0.03	>480	>480
Methyl Chloride (chloromethane)	74-87-3				0.023	>540	>540			
Nitrobenzene	98-95-3				0.024	>540	>540	0.1		>480
Sodium Hydroxide (50wt%)	1310-73-2	0.042	>540	>540	0.042	3	>540	0.05		>480
Sulfuric Acid (96wt%)	7664-93-9	≤0.05	>540	>540	<0.05	>540	>540	0.02	>480	>480
Tetrachloroethylene	127-18-4				0.030	30	218	0.05	480	>480
Tetrahydrofuran (99.98wt%)	109-99-9	≤0.08	Imm	Imm	≤0.08	Imm	Imm	0.01	>480	>480
Toluene (99.99wt%)	108-88-3	≤0.08	Imm	Imm	≤0.08	3	69	≤0.01	>480	>480
Selected Other Chemicals	CAS Number	MDPR ($\mu\text{g}/\text{cm}^2/\text{min}$)	ASTM BDT (mins)	ASTM BT at 0.1 $\mu\text{g}/\text{cm}^2/\text{min}$ (mins)	MDPR ($\mu\text{g}/\text{cm}^2/\text{min}$)	ASTM BDT (mins)	ASTM BT at 0.1 $\mu\text{g}/\text{cm}^2/\text{min}$ (mins)	MDPR ($\mu\text{g}/\text{cm}^2/\text{min}$)	ASTM BDT (mins)	ASTM BT at 0.1 $\mu\text{g}/\text{cm}^2/\text{min}$ (mins)
Benzene	71-43-2				<0.05	21	161			
Cumene (99.9 wt%)	98-82-8				0.016	>540	>540			
Ethanol	64-17-5				<0.1	>540	>540			
Furfural	98-01-1			>540						
n-Heptane	142-82-5	≤0.08	Imm	Imm	≤0.08	52	>540	0.01	>480	>480
Hexachloro-1, 3-butadiene	87-68-3				0.09	>540	>540			
Hydrobromic Acid	10035-10-6				<0.1	>540	>540			
Hydrochloric Acid 37wt%	7647-01-0	≤0.05	14	193						
Hydrofluoric Acid (71-75 wt%)	7664-39-3				<0.05	8	175	0.03	>480	>480
Hydrogen Sulphide (>99wt%)	7783-06-4				0.04	>540	>540			
Nitric Acid Conc (70%)	7697-37-2				≤0.05	>540	>540			
Nitric Acid (≥ 99.5 %)	7697-37-2				≤0.06	>540	>540			
Perchloric Acid (30%)	7601-90-3	>540	>540	>540						
Propylene Oxide (99%)	75-56-9				≤0.05	3	5	0.08	90	92
Sodium Hydroxide (aq., 40 wt%)	1310-73-2	≤0.05	>540	>540	≤0.05	>540	>540			
Sulphuric Acid (50 wt%)	7664-93-9				0.022	>540	>540			
Vinyl Acetate	108-05-4					>540	>540			

KEY: Imm = immediate • MDPR = Minimum Detectable Permeation Rate • BDT = Breakthrough Detection Time • BT = Normalized breakthrough detection time
* For a comprehensive list of chemical permeation data visit www.microchemusa.com



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