

## Summary

Product	<b>ChemMAX 1 EB</b>
Description	Lightweight and flexible chemical suit designed specifically for protection against Ebola and other viruses. Combines Type 4 design with the infectious agent protection of a barrier film and stitched and taped, fully sealed seams. Type 4(B) protection with superior barrier against biological and infectious hazards. Certified to EN 14605 (Type 4) & EN 14126 for protection against infectious agents.
Fabric & weight	HD/PE barrier film laminate. 78gsm.
Style *(see overleaf)	CT1SL428EB
Seam Type	Stitched and PE taped.
Colour	Yellow



## CE Certification

EN Standard*	Description	Result
EN 340: 2002	Protective Clothing : General Requirements	Pass
EN 13034: 2005	Type 6: Protection against light spray of liquids	N/A
EN 13982: 2004	Type 5: protection against hazardous dry particles	N/A
EN 14605:2005	Type 4: Protection against splashes and sprays of liquid chemicals	Pass
EN14126: 2003	Protection against infectious agents	Passes all five tests in highest class

\*All Lakeland garments are certified to the latest version of standards where possible

## Mechanical Properties

EN Standard	Description	Result	EN Class
EN 13934	Tensile Strength	108.8/72.4 N	3/2
EN 530	Abrasion Resistance	<500 Cycles	2
EN 863	Puncture Resistance	10.9 N	2
ISO 2960	Burst Strength	79 kPa	1
ISO 7854	Flex Cracking	<2500 Cycles	1
ISO 9073	Trapezoidal tear md/cd	57/43 N	3
ISO 9073	Trapezoidal tear-mean	50 N	3
ISO 5082	Seam Strength	104.9 N	3

## Infectious Agent Protection – EN 14126: 2004

	Standard	Class
ISO16603	Synthetic Blood Screening Test	Pass
ISO16604	Contaminated liquids at pressure	Class 6 of 6
ISO2261	Contaminated Aerosols	Class 3 of 3
ISO 22612	Dry Microbial Penetration	Class 3 of 3
EN14126 Annex A	Mechanical Contact with contact with substances containing contaminated liquids	Class 6 of 6

The above tests are included in EN 14126

## Chemical Permeation – EN 6529 – For Types 1 to 4

The chemical list below is from EN 6529 Annex A2 and is intended to provide a broad spectrum of chemical types if general chemical suit assessment

Chemical	CAS No	Result / EN Class
Acetone	67-64-1	Imm / Class 0
Acetonitrile	75-05-8	NT
Carbon Disulphide	75-15-8	NT
Dichloromethane	75-09-2	Imm / Class 0
Diethylamine	109-89-7	Imm / Class 0
Ethyl Acetate	141-78-6	Imm / Class 0
n-Hexane	110-54-3	Imm / Class 0
Methanol	67-56-01	210 / Class 4
Sodium Hydroxide	1310-73-2	480 / Class 6
Sulphuric Acid (96%)	7664-93-9	480 / Class 6
Tetrahydrofuran	109-99-9	Imm / Class 0
Toluene	108-88-3	Imm / Class 0

Breakthrough times are a reflection controlled lab tests measuring “Normalised Breakthrough” as the time to reach a *permeation rate* of 1.0µg/min/cm<sup>2</sup>. This does not imply “no breakthrough” and is not intended to indicate any duration of “safe-use” in any specific application. It is always the users’ final responsibility to ensure a garment is suitable for the application.

## Key features

- Protection against a range of commonly used chemicals and achieves highest classes in all EN 14126 tests against infectious agents
- Stitched & taped seams for strong and fully impervious seams
- Single front flap with D/S adhesive tape fastening with a thumb ring
- Lakeland Super-B style pattern – 3 piece hood, inset sleeves, diamond crotch gusset

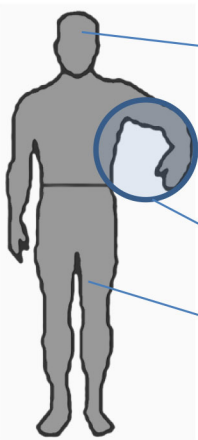
## Suggested applications

- Management of Virus Outbreaks  
*Note: ChemMAX 1 EB has been specially developed for rapid response to the 2014 Ebola outbreak using fabric that features a high and proven barrier film against infectious agents with the cost-effectiveness of a Type 4 suit design. Lakeland consider Type 4(B) to be the minimum specification required. For an explanation of why or for more information contact sales-ap@lakeland.com*
- General Chemical protection according to Type 4

# Other Information

## Lakeland Super-B Style Pattern – ergonomic design for freedom of movement, comfort and durability

All Lakeland coveralls are constructed using Lakeland’s “Super-B” style pattern. Using the company’s global knowledge and experience of protective clothing this takes European CE and North American ANSI styles to produce a garment design which combines the best elements of both to produce a garment which is generous in size yet better fitting and allows greater freedom of movement.



**The Super-B style consists of 3 key elements:-**

**Three Piece Hood**  
Many cheaper garments feature a 2 piece hood. Lakeland’s 3-piece hood creates a 3D profile which fits the head better and allows greater freedom of movement. It also fits better with face masks when worn.

**Inset Sleeves**  
Most European styles use a “bat-wing” style (red line) in which the under-arm reaches down to the waist. The argument is that it creates more room in the chest. However, THIS CLEARLY RESTRICTS MOVEMENT WHEN THE USERS REACHES ABOVE HIS HEAD, PLACING STRESS ON THE CROTCH AREA. However, Lakeland use an inset sleeve (blue line) which follows the contours of the body and allows much greater freedom of movement

**Two-piece diamond crotch gusset**  
Commonly garments have four seams – two body and two leg – that meet at one point in the crotch. This is a key weak point and often results in tearing and rip-outs. Lakeland inserts a two-piece diamond shaped crotch that spreads the stress and creates a more 3D fitting shape, improving wearer movement, comfort and enhancing overall durability

The unique combination of three key elements of the Super-B style coverall makes Lakeland garments the best designed available

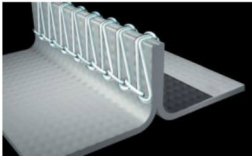
## Sizing

Size	Body Height	Chest
S	164-170cm	84-92cm
M	170-176cm	92-100cm
L	176-182cm	100-108cm
XL	182-188cm	108-116cm
XXL	189-194cm	116-124cm
XXXL	194-200cm	124-132cm

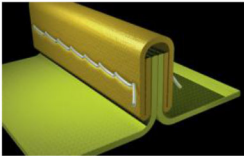


## Seams

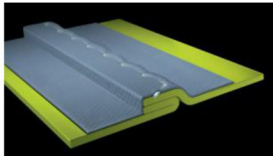
Lakeland garments use 3 types of seams:-



**Serged or Stitched**  
Safeguard GP  
MicroMAX NS



**Bound**  
Safeguard 76 / Diamant  
MicroMAX  
Cool Suit



**Stitched & Taped**  
MicroMAX TS  
Tomtex  
ChemMAX

## Storage, Shelf-life and Disposal

### Storage

Lakeland garments can be stored in normal storage areas and require no special condition. Keep in cool, dry areas where possible and away from direct heat and sunlight

### Shelf-Life

Lakeland coveralls are primarily manufactured from inert polymers (usually polypropylene and/ or polyethylene which should normally degrade over longer periods in excess of 10 years. Garments are supplied in sealed bags and so a shelf life of ten years or more should be reasonable under normal conditions. However, we recommend that after 5 years Type 3 and 4 chemical suits should be disposed of and replaced or used for training only. Some discoloration of especially white fabrics may occur over time though this will not affect performance. In any circumstances it is the users’ responsibility to check garments for damage tears or wear before use

### Disposal

Polymers used in Lakeland garments are generally inert, non-harmful and non-toxic and can be disposed of by incineration or to landfill according to local