

# THE SHIELD: Chemical Protective Undergarment (CPU)

This high protection, one- or two-piece undergarment system, has been specifically designed and developed to provide a versatile solution to CBRN protective garments. Combining comfort and functionality, it is used by military and civil security services around the world.

The Shield CPU has been developed as a vapour barrier system that protects against chemical and biological agents and provides protection in accordance to NATO standards.

The Shield comes complete with a separate 'hood & cowl' for integration with a number of respirators. With added 'stretch' fibres incorporated into the fabric, the Shield is worn closer to the body than an over-suit, thus giving the Shield an extremely high degree of comfort. It has been designed to be worn under standard combat clothing, a flight suit, or even covertly under business attire. Primarily, it is intended to be worn in the situation where there is a CBRN risk, but the actual threat has yet to be identified. Once this threat has been identified as high risk, then the separate 'hood & cowl' is then donned alongside the appropriate CBRN respirator and CBRN hand and foot protection if required.

This modular system offers many different protection scenarios, and due to the close fitting of the CPU, offers similar protection to a traditional CBRN over-garment.

Maximum suit weight is just 800g (base size).

To complete the ensemble CQC also offer a chemical protective sock which fully integrates with the Shield, and offers high comfort and protection.

## **SPECIFICATIONS & KEY FEATURES:**

- Conforms to NATO standards
- High protection undergarment
- High air permeability
- Lower physiological burden
- 20 times launderable
- Compatible with a wide range of ancillaries
- 15 Year shelf life



# **Ensemble testing**

#### MAN IN SIMULANT (MIST)

#### Physiological Protection Dosage Factor (PPDF)sys

Exceeds requirements for Class 3/Category C ensemble, in accordance with NATO standards.

MIST was conducted using certified ancillary products.

## Swatch testing

### Mustard Agent (HD) Liquid - Laid droplet 10g/m<sup>2</sup>

24 Hours protection in accordance with NATO Standards.

#### Soman (GD) Liquid - Laid droplet 10g/m<sup>2</sup>

24 Hours protection in accordance with NATO Standards.

## Mustard Agent (HD) Liquid after 20 times laundering -Laid and fallen droplet 10g/m<sup>2</sup>

24 Hours protection.

## Mustard gas performance

After Petrol - > Six hours After Salt - > Six hours After Ageing - > Six hours

The Shield provides comfort at both low and high temperatures and humidity, with sweat rate in extreme conditions being lower when measured against conventional undergarments.

The Shield has been designed as an integrated system for use with protective gloves and over-boots and a negative pressure respiratory system.

The CQC chemical protective socks are designed to offer maximum protection and comfort to the wearer. The socks are constructed to eliminate any uncomfortable pressure points.







- Functionality for the military and civil security services around the world
- Maximum suit weight is just 800g (base size)
- 24 hours protection
- Exceeds the MIST physiological protection dosage factor required for a class 3 ensemble

