

ONE-PIECE DECONTAMINATION SUIT

REUSABLE CHEMICAL PROTECTIVE WORKWEAR (COMB049/3)



RESPIREX™

Description

A reusable liquid-tight chemical protection one-piece suit manufactured in **Viton®/Butyl/Viton® (VBV)** a premium coated fabric in DuPont™ Viton® that combines excellent chemical protection and durability.

The suit is specifically designed for CBRN decontamination scenarios and features a twin facemask seal in the hood for the best possible fit with popular CBRN full facemasks.



Applications



Military



Decon-
tamination



Civil
Defence

Certification



Type 3 | EN14605:2005+A1:2009
Liquid-Tight Chemical Protective Clothing



Type 4 | EN14605:2005+A1:2009
Spray-Tight Chemical Protective Clothing

Product Documentation



The Declaration of Conformity and user instructions can all be downloaded from the product page on the Respirex website, links are in the downloads tab.

Key Features

Elasticated hood with inner rubber grommet to give the closest seal possible against a wide range of full facemasks. Tested with the Scott M95 and Avon FM50.

Adjustable neck flap with hook and loop fastener.

Protection against liquid chemicals (**Type 3**), infective agents and chemical warfare agents

Nylon coarse tooth zip running from **thigh to collar** for ease of donning

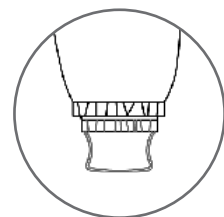
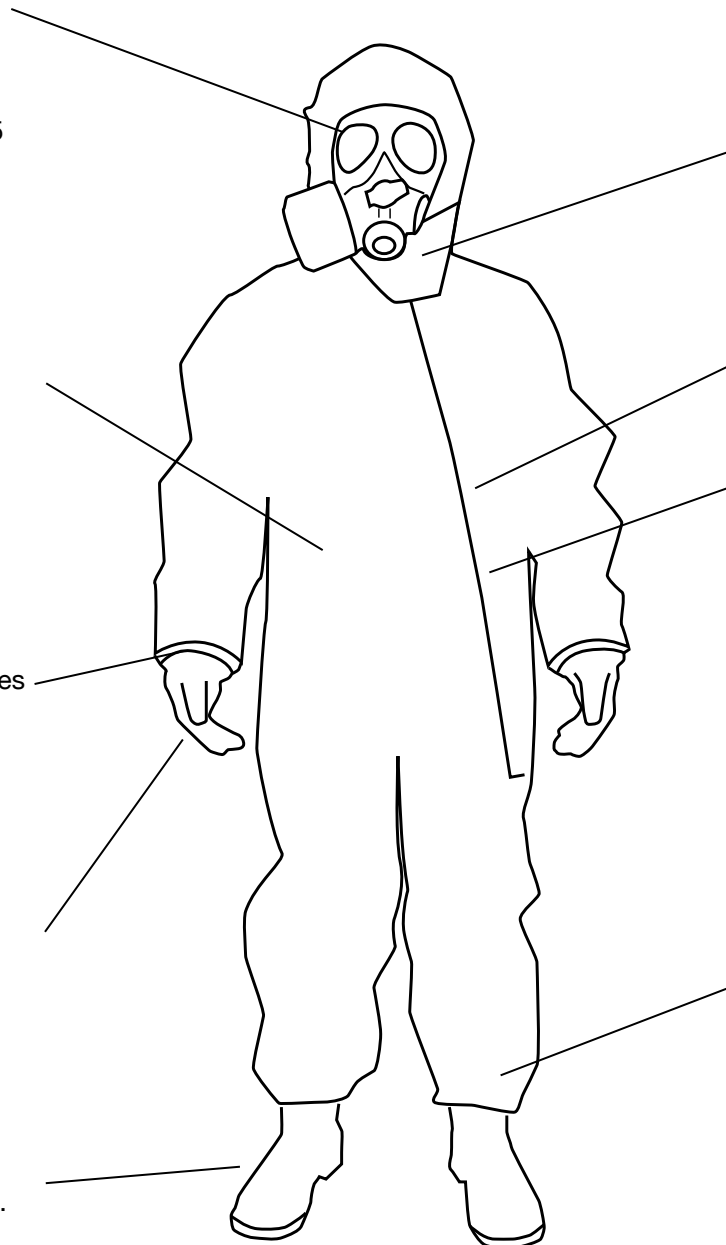
Zip protected by **double storm flaps** with hook and loop fastener.

Gas-tight locking cuff system for changing gloves - red colour as standard black as special order.

Fitted with **customers choice of chemical protective gloves.**

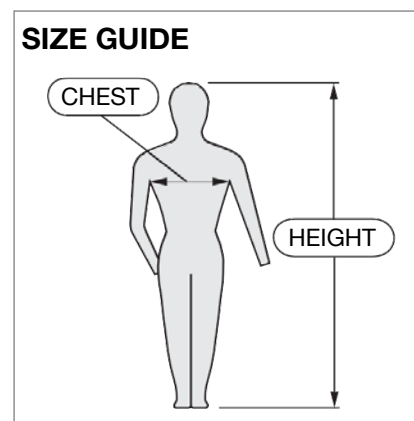
Double elasticated ankles with stirrup on inner leg

Worn with customers own choice of chemical resistant safety boots, e.g. **Hazmax™**



Sizing

| Size | Chest (cm) | Height (cm) |
|----------|------------|-------------|
| Small | 88-96 | 164-170 |
| Medium | 96-104 | 170-176 |
| Large | 104-112 | 176-182 |
| X-Large | 112-124 | 182-188 |
| XX-Large | 124-136 | 188-194 |



Material Performance

| Performance Requirement | Tested In Accordance With | Viton®/Butyl/Viton® |
|--------------------------|---------------------------|---------------------|
| Abrasion Resistance | EN 530 Method 2 | > 2,000 |
| Flex Cracking Resistance | EN ISO 7854 Method B | > 100,000 |
| Tear Resistance | EN ISO 9073-4 | > 100 N |
| Tensile Strength | EN ISO 13934-1 | > 1,000 N |
| Puncture Resistance | EN 863 | > 100 N |
| Resistance to Ignition | EN 13274-4 Method 3 | Pass |
| Seam Strength | EN ISO 13935-2 | > 500 N |

Resistance to Penetration by Infective Agents

The material has passed the requirements of EN14126:2003 for protective clothing against infective agents. It is therefore suitable to provide protection against blood, blood-borne pathogens, body fluids, biologically contaminated aerosols and both wet and dry microbial penetration.

| Requirement | Test Method | Level of Performance | EN14126:2003 Class |
|---|--------------------|---------------------------|--------------------|
| Resistance to wet microbial penetration | ISO 22610:2006 | > 75 min | 6 |
| Resistance to penetration by blood and body fluids using synthetic blood | ISO 16603:2004 | Pass | N/A |
| Resistance to penetration by blood-borne pathogens using bacteriophage Phi-X174 | ISO 16604:2004 | 20 kPa | 6 |
| Resistance to penetration by biologically contaminated aerosols | ISO/DIS 22611:2003 | Log ₁₀ R > 5 | 3 |
| Resistance to dry microbial penetration | ISO 22612:2005 | <1 Log ₁₀ Mean | 3 |

Chemical Warfare Agents

| Agent | Breakthrough Time | Agent | Breakthrough Time |
|---------------------|-------------------|---------------|-------------------|
| Phosgene | > 8 hours | Lewisite (L)* | > 24 hours |
| Cyanogen Chloride | > 8 hours | Sarin (GB)* | > 24 hours |
| Hydrogen Cyanide | > 8 hours | VX* | > 24 hours |
| Mustard Agent (HD)* | > 24 hours | | |

All tests carried out under laboratory conditions by independent accredited laboratories in accordance with EN ISO 6529, except for those marked * which are tested in accordance with the FINABEL 0.7.C Convention. Table shows average breakthrough times in hours.

Chemical Permeation

| | CAS NO. | Viton®/Butyl/Viton® |
|------------------------|-----------|---------------------|
| Hydrochloric acid, 36% | 7647-01-0 | > 480 mins |
| Hydrofluoric acid 48% | 7664-39-3 | > 480 mins |
| Hydrofluoric acid 73% | 7664-39-3 | > 480 mins |
| Nitric acid, 60% - 70% | 7697-37-2 | > 480 mins |
| Sodium hydroxide, 40% | 1310-73-2 | > 480 mins |
| Sulphuric acid 96% | 7664-93-9 | > 480 mins |

The test results indicate the resistance to permeation by chemicals of the material. All tests were carried out under laboratory conditions by independent accredited laboratories in accordance with BS EN ISO 6529 unless otherwise stated

For full details of the chemical permeation performance of VBV and its performance against chemical warfare and infective agents, please visit the materials section of the Respirex website www.respirex.com.

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