

PROTECTIVE CLOTHING AGAINST LIQUID CHEMICALS [“CHEMSOL PLUS” BOILERSUIT RANGE] - CLOTHING WITH SPRAY-TIGHT, [TYPE 4] CONNECTIONS. CONFORMING TO THE REQUIREMENTS OF BS EN 14605:2005+A1:2009

INTRODUCTION <ul style="list-style-type: none"> These Chemsol Plus garments are re-usable chemical protective clothing manufactured to meet the requirements of the PPE Directive 89/689/EEC, (and subsequent amendments), and the harmonized European Standards - EN 14605:2005+A1:2009, EN 1149-5:2006 & EN ISO 14116:2008. These Chemsol Plus garments are manufactured under ISO 9001 quality control procedures. Bag and garment labels indicate product type/code. The determination of the suitability of Chemsol Plus garments for the intended application should be made by trained and qualified safety personnel and is the users final responsibility. 	MATERIAL/GARMENT PERFORMANCE DATA [EN 14605:2005+A1:2009]																																			
APPLICATION <ul style="list-style-type: none"> Chemsol Plus protective clothing provides the wearer with protection against liquid chemicals, for a limited time. Chemsol Plus garments will protect only those parts of the body that they cover. When these Chemsol Plus garments are used in conjunction with other PPE, (e.g. Respirators, Gloves, Boots, Hoods, etc.), the connections should be sealed with a 'Chemical' tape. 	<table border="1"> <thead> <tr> <th>TEST</th> <th>STANDARD</th> <th>PERFORMANCE</th> <th>CLASSIFICATION</th> </tr> </thead> <tbody> <tr> <td>Abrasion Resistance</td> <td>EN 530</td> <td>> 2,000 Cycles</td> <td>Class 6</td> </tr> <tr> <td>Flex Cracking Resistance</td> <td>EN ISO 7854</td> <td>> 100,000 Cycles</td> <td>Class 6</td> </tr> <tr> <td>Tear Strength [Trapezoidal]</td> <td>EN ISO 9073-4</td> <td>> 40 N</td> <td>Class 3</td> </tr> <tr> <td>Tensile Strength</td> <td>EN ISO 13934-1</td> <td>> 100 N</td> <td>Class 3</td> </tr> <tr> <td>Puncture Resistance</td> <td>EN 863</td> <td>> 10 N</td> <td>Class 2</td> </tr> <tr> <td>Seam Strength</td> <td>EN ISO 13935-2</td> <td>> 300 N</td> <td>Class 5</td> </tr> <tr> <td>Resistance To Penetration By Liquids [Type 4: Spray Test]</td> <td>EN ISO 17491-4</td> <td>PASS</td> <td>PASS</td> </tr> </tbody> </table> <p>Note 1: Whole suit testing, EN ISO 17491-4, has been conducted with face, wrists, ankles and closures sealed with a 'Chemical' Tape.</p>				TEST	STANDARD	PERFORMANCE	CLASSIFICATION	Abrasion Resistance	EN 530	> 2,000 Cycles	Class 6	Flex Cracking Resistance	EN ISO 7854	> 100,000 Cycles	Class 6	Tear Strength [Trapezoidal]	EN ISO 9073-4	> 40 N	Class 3	Tensile Strength	EN ISO 13934-1	> 100 N	Class 3	Puncture Resistance	EN 863	> 10 N	Class 2	Seam Strength	EN ISO 13935-2	> 300 N	Class 5	Resistance To Penetration By Liquids [Type 4: Spray Test]	EN ISO 17491-4	PASS	PASS
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USAGE <ul style="list-style-type: none"> All PPE should be donned/doffed in an area away from any potential risk. Before use, the wearer should ensure that the clothing has been thoroughly cleaned, following any previous usage, and that the materials, seams and closures are inspected to ensure that the protection offered by the Chemsol Plus garment will meet the conditions for safe use. When using this Chemsol Plus garment with other PPE, (e.g. Respirators, Gloves, Boots, etc.), Ensure that the Sleeves and Legs of the suit are worn over any Gloves or Boots being used. Before entering the hazardous area, all closures should be fastened and all openings/closures and connections, to other PPE, should be secured, using an appropriate 'Chemical' tape. In the event of leakage or damage to the Chemsol Plus garment during use, the wearer should immediately leave the hazardous area and remove the garment. After use, to remove contamination, Chemsol Plus clothing should be RINSED DOWN with cold water, and subsequently, allowed to Drip Line Dry, in the shade, clear of UV sources. 	RESISTANCE TO PERMEATION BY LIQUIDS [EN 374-3:2003] <table border="1"> <thead> <tr> <th>CHEMICAL</th> <th>CONCENTRATION</th> <th>FABRIC</th> <th>SEAM</th> </tr> </thead> <tbody> <tr> <td>Sodium Hydroxide [NaOH]</td> <td>50 wt%</td> <td>>480 mins. / Class 6</td> <td>>480 mins. / Class 6</td> </tr> <tr> <td>Nitric Acid [HNO₃]</td> <td>50 wt%</td> <td>>10 mins. / Class 1</td> <td>>10 mins. / Class 1</td> </tr> </tbody> </table> <p>Note 2: Other chemicals have been tested. Please contact supplier for further information. Note 3: Breakthrough times on seams may be lower than on the fabric. Note 4: All tests were performed independently and are a reflection of the performance of the 'as new' fabric only in controlled laboratory conditions. Results are not intended to give any idea of "safe use" for the garment.</p>				CHEMICAL	CONCENTRATION	FABRIC	SEAM	Sodium Hydroxide [NaOH]	50 wt%	>480 mins. / Class 6	>480 mins. / Class 6	Nitric Acid [HNO ₃]	50 wt%	>10 mins. / Class 1	>10 mins. / Class 1																				
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WARNINGS <ul style="list-style-type: none"> Fabrics used in the construction of Chemsol Plus garments have low air permeability and can cause heat stress. Frequent rest is advised. This Chemsol Plus garment should be used by persons who are trained and aware of the dangers relating to the work being performed. Flammable material. Keep away from fire. If this Chemsol Plus garment is damaged in any way, or is still contaminated after being rinsed down, its use should be discontinued and the garment disposed of at the earliest opportunity. When disposing of used chemical protective clothing, we recommend it be treated as harmful and disposed of as hazardous waste in accordance with national/local regulations. 	PROTECTIVE CLOTHING - ELECTROSTATIC PROPERTIES [EN 1149-5:2006] <table border="1"> <thead> <tr> <th>TEST</th> <th>STANDARD</th> <th>RESULT</th> <th>CLASS</th> </tr> </thead> <tbody> <tr> <td>Surface Resistance</td> <td>EN 1149-1</td> <td>≤ 2.5 x 10⁹ Ω</td> <td>PASS [Outer Surface]</td> </tr> <tr> <td>Half Decay Time [t₅₀]</td> <td>EN 1149-3</td> <td>t₅₀ < 4s</td> <td>PASS</td> </tr> </tbody> </table>				TEST	STANDARD	RESULT	CLASS	Surface Resistance	EN 1149-1	≤ 2.5 x 10 ⁹ Ω	PASS [Outer Surface]	Half Decay Time [t ₅₀]	EN 1149-3	t ₅₀ < 4s	PASS																				
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MAINTENANCE <ul style="list-style-type: none"> It is recommended that the wash care instructions, as detailed on the care label, are followed. After use, to remove contamination, Chemsol Plus clothing should be RINSED DOWN with cold water, and subsequently, allowed to Drip Line Dry, in the shade, clear of UV sources. Advice: For reasons of hygiene the garment should, preferably, be worn by the same person. 	ELECTROSTATIC PROPERTIES - COMPLIANCE AND RESPONSIBILITY [EN 1149-5:2006] <ul style="list-style-type: none"> Garments are anti-statically treated and comply to the electrostatic protection required by EN 1149-5:2008 and must be used with compatible accessories and work practices to be effective. Electrostatic dissipative protective clothing to EN 1149-5 shall meet at least one of the following requirements: <ul style="list-style-type: none"> a Surface Resistance of less than or equal to 2.5 x 10⁹ Ω, on at least one surface, tested according to EN 1149-1:2006. a Shielding Factor [S] > 0.2 or a Half Decay Time [t₅₀] < 4s, tested according to EN 1149-3:2004, test method 2 (induction charging) The person wearing the electrostatic dissipative protective clothing shall be properly earthed. The resistance between the person and the earth shall be less than 10⁸ Ω, e.g. by wearing adequate footwear. Electrostatic dissipative protective clothing shall not be open or removed whilst in the presence of flammable or explosive atmospheres or while handling flammable or explosive substances. Fasten the garment correctly, covering all non-complying materials. Where the garment is to be earthed through the skin, ensure that the cuffs are in contact with the skin at all times. Electrostatic dissipative clothing shall not be used in oxygen enriched atmospheres without the prior approval of the responsible safety engineer. The electrostatic dissipative performance of the electrostatic dissipative protective clothing can be affected by wear and tear, laundering and possible contamination. Electrostatic dissipative protective clothing shall permanently cover all non-complying materials during normal use, [including bending and movements]. Not intended to protect against mains voltages. 																																			
STORAGE <ul style="list-style-type: none"> It is recommended that new Chemsol Plus garments are stored in their original packaging and clear of UV sources. Following use, and after having been RINSED DOWN and DRIED, Chemsol Plus clothing should be stored in a cool, dry and clean environment - always hang to avoid creases. 	PROTECTION AGAINST HEAT AND FLAME - LIMITED FLAME SPREAD MATERIAL [EN ISO 14116:2008] <table border="1"> <thead> <tr> <th>TEST</th> <th>STANDARD</th> <th>RESULT</th> <th>CLASS</th> </tr> </thead> <tbody> <tr> <td>Limited Flame Spread</td> <td>EN ISO 14116</td> <td>PASS</td> <td>Indexes 1/5H/40</td> </tr> <tr> <td>Tensile Strength</td> <td>ISO 13934-1</td> <td>MD: ≥ 150 N XD: ≥ 150 N</td> <td>MD: PASS XD: PASS</td> </tr> <tr> <td>Tear Strength</td> <td>ISO 13937-2</td> <td>MD: ≥ 7 N XD: ≥ 7 N</td> <td>MD: PASS XD: PASS</td> </tr> <tr> <td>Seam Strength</td> <td>ISO 13935-2</td> <td>≥ 30 N</td> <td>PASS</td> </tr> </tbody> </table>				TEST	STANDARD	RESULT	CLASS	Limited Flame Spread	EN ISO 14116	PASS	Indexes 1/5H/40	Tensile Strength	ISO 13934-1	MD: ≥ 150 N XD: ≥ 150 N	MD: PASS XD: PASS	Tear Strength	ISO 13937-2	MD: ≥ 7 N XD: ≥ 7 N	MD: PASS XD: PASS	Seam Strength	ISO 13935-2	≥ 30 N	PASS												
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EXPLANATION OF LABEL SYMBOLS/PICTOGRAMS <ul style="list-style-type: none"> Chemical Protective Clothing. EN 14605:2005+A1:2009. Re-Usable Protection. EN 14605:2005+A1:2009. Type 4: Spray-Tight Clothing. Electrostatic Properties. EN 1149-5:2008. Electrostatic Dissipative Protective Clothing. EN 1149-1:2006. Surface Resistance Of ≤ 2.5 x 10⁹ Ω [Outer Surface]. EN 1149-3:2004. Half Decay Time [t₅₀] < 4 secs. Heat & Flame Properties. EN ISO 14116:2008. Limited Flame Spread Material. Limited Flame Spread Material - Indexes 1/5H/40. [Note: Garment is NOT tested/approved to EN ISO 14116:2015] Refer To User Instruction. 	HEAT AND FLAME PROPERTIES - LIMITED FLAME SPREAD WARNINGS [EN ISO 14116:2008] <ul style="list-style-type: none"> These garments are manufactured from material which complies to Indexes 1/5H/40 of the EN ISO 14116:2008 standard, offering Limited Flame Spread protection. Index 1 fabric will melt and form holes and does not offer the thermal barrier of Index 2 or 3 garments. These garments shall always be worn over Index 2 or 3 garments and must never come into direct contact with the skin. It should also be noted that the thread, zipper and other components are not made from fire retardant materials and may burn or melt if exposed to direct heat or flame. This is a test of the material only and not a test of the whole garment. 																																			
WASH CARE SYMBOLS [REFER TO GARMENT CARE LABEL]	GARMENT SIZES [REFER TO GARMENT SIZE LABEL] <p>The following table reflects the dimensions of the four standard sizes. Alpha Solway Limited make the statement that they also manufacture garments to size designations out-with these standard sizes, (e.g. Extra Small, XX Large, XXX Large, etc.), and also provide their customers with the facility to order garments with dimensions to their own bespoke size.</p>																																			
	<p>Select appropriate size for wearer's chest and height.</p> <table border="1"> <thead> <tr> <th>SIZE</th> <th>CHEST GIRTH [CM]</th> <th>BODY HEIGHT [CM]</th> </tr> </thead> <tbody> <tr> <td>S</td> <td>90-98</td> <td>162-168</td> </tr> <tr> <td>M</td> <td>98-106</td> <td>168-174</td> </tr> <tr> <td>L</td> <td>106-114</td> <td>174-180</td> </tr> <tr> <td>XL</td> <td>114-122</td> <td>180-186</td> </tr> </tbody> </table>				SIZE	CHEST GIRTH [CM]	BODY HEIGHT [CM]	S	90-98	162-168	M	98-106	168-174	L	106-114	174-180	XL	114-122	180-186																	
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DISCLAIMER: Alpha Solway and its distributors cannot accept responsibility for improper use of this Chemsol Plus garment.

NOTE: Should you require any assistance or further technical information regarding this Chemsol Plus garment, please phone the Company at the telephone number provided and ask for the Sales Department.

EC Type Examination Certificate: Issued By: SGS United Kingdom Ltd., Unit 202b Worle Parkway, WESTON-SUPER-MARE, BS22 6WA, United Kingdom. [EC Notified Body No. 0120]
EC Quality Control System Certificate: Issued By: SGS United Kingdom Ltd., Unit 202b Worle Parkway, WESTON-SUPER-MARE, BS22 6WA, United Kingdom. [EC Notified Body No. 0120]