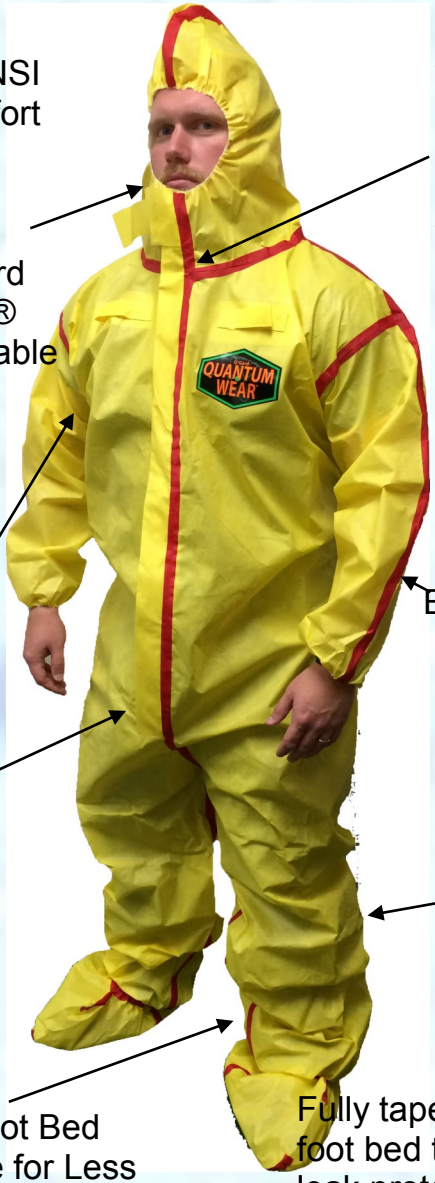
NEW!!!

Quantumwear® C

Quantumwear®C Higher Splash & Particle Protection Apparel

Quantumwear® C was developed to give workers a more comfortable and functional alternative while working:

- Nuclear D/D
- Abatement
- Construction
- Manufacturing
- Cleaning
- Remediation
- Demolition



Larger than ANSI Sizes for Comfort and Fit

Special Patent Pending Q-Gard Quantumwear® Flap for adjustable respiratory fit.

Fully Bound then Taped Seams—to help prevent most penetration of solids and liquids

PSA backed storm flap helps keep out most splash

Elastic Back

Roomier and Stronger Arm and Crotch for Comfort, Movement, and Less Tear-outs

Higher Stitch Count for Stronger Seams

Larger Foot Bed and Ankle for Less Tear-outs while donning and doffing

Fully taped under foot bed to help leak protection

Item	Size	Per Case
01173	L	25
01174	XL	25
01175	2X	25
01176	3X	25
01177	4X	25
01178	5X	25
01179	6X	25

QUEST
Environmental & Safety Products, Inc.

Protecting Workers in any Environment.
www.questsafety.com 1.800.878.4872

Notice: Only a trained safety professional can determine fitness for use of Q-Gard Quantumwear® or any other Quest® products. Quest® does not warrant Q-Gard Quantumwear® or any product for any particular use or application. Do not use in the presence of flame, fire, infrared heat or any ignition source. Not for reuse or laundering or reclaiming after use.

NEW Q-Gard Quantumwear® C Permeation Resistance (ASTM F739-07) Test Comparisons

Chemical Challenge	CAS #	Dupont Tychem® QC Average Normalized Breakthrough Time (min)	Quantumwear "C" Average Normalized Breakthrough Time (min)	Dupont Tychem® QC Average Steady State Permeation (µg/cm²/min)	Quantumwear "C" Average Steady State Permeation (µg/cm²/min)
Ammonia, anhydrous	7664-41-7	Immediate	Immediate	3.1	0.74
Dichloromethane	75-09-2	Immediate	Immediate	>50	0.23
Dimethylformamide	68-12-2	Immediate	ND	0.72	N/A
50% Sodium Hydroxide	1310-73-2	ND	ND	N/A	N/A
93% Sulfuric Acid	7664-93-9	ND	ND	N/A	N/A
Toluene	108-88-3	Immediate	Immediate	503	0.12
Acetone	67-64-1	Immediate	Immediate	10	0.15
Acetonitrile	75-05-8	Immediate	ND	16	N/A
Carbon Disulfide	75-15-0	Immediate	Immediate	High	0.55
Diethylamine	109-89-7	Immediate	Immediate	64	0.51
Ethyl Acetate	141-78-6	Immediate	Immediate	13	0.4
n-Hexane	110-54-3	Immediate	Immediate	High	0.37
Methanol	67-56-1	Immediate	ND	2.2	N/A
Nitrobenzene	98-95-3	Immediate	Immediate	18	0.61
Tetrachloroethylene	127-18-4	Immediate	Immediate	High	1.38
Tetrahydrofuran	109-99-9	Immediate	Immediate	183	0.44
1,3-Butadiene	106-99-0	Immediate	Immediate	12	N/A
Chlorine	7782-50-5	Immediate	Immediate	>50	0.23
Ethylene Oxide	75-21-8	Immediate	Immediate	167	N/A
Hydrogen Chloride	7647-01-0	Immediate	Immediate	9.3	0.64
Methyl Chloride	74-87-3	Immediate	Immediate	0.23	N/A

Note: "**Immediate**" means less than 10 minutes. "**ND**" means none detected during the 480 minute test.
"**N/A**" means not attained during the 480 minute test

Indicates better performance

"Cool, Comfortable, Safe"

Q-Gard QUANTUM WEAR®

NEW Q-Gard Quantumwear® C

Chemical Permeation Resistance and Penetration Test Comparisons

		Permeation Resistance ASTM F739				Chemical Penetration ASTM F903	
		Kleenguard A70	Quantumwear "C"	Kleenguard A70	Quantumwear "C"	Kleenguard A70	Quantumwear "C"
Chemical Challenge	CAS #	Average Normalized Breakthrough Time (min)	Average Normalized Breakthrough Time (min)	Average Steady State Permeation ($\mu g/cm^2/min$)	Average Steady State Permeation ($\mu g/cm^2/min$)	Final Results	Final Results
Dichloromethane	75-09-2	Immediate	Immediate	85.1	0.23	Pass	Pass
Dimethylformamide	68-12-2	Immediate	ND	2.54	N/A	Pass	Pass
50% Sodium Hydroxide	1310-73-2	ND	ND	N/A	N/A	Pass	Pass
93% Sulfuric Acid	7664-93-9	ND	ND	N/A	N/A	Pass	Pass
Toluene	108-88-3	Immediate	Immediate	High	0.12	Pass	Pass
Acetone	67-64-1	Immediate	Immediate	7.9	0.15	Pass	Pass
Acetonitrile	75-05-8	Immediate	ND	8.97	N/A	Pass	Pass
Carbon Disulfide	75-15-0	Immediate	Immediate	76.3	0.55	Pass	Pass
Diethylamine	109-89-7	Immediate	Immediate	High	0.51	Pass	Fail
Ethyl Acetate	141-78-6	Immediate	Immediate	40.3	0.4	Pass	Pass
n-Hexane	110-54-3	Immediate	Immediate	High	0.37	Pass	Pass
Methanol	67-56-1	Immediate	ND	1.71	N/A	Pass	Pass
Nitric Acid	7697-37-2	193	20	1.77	316	Pass	Pass
Nitrobenzene	98-95-3	Immediate	Immediate	97.4	0.61	Pass	Pass
Tetrachloroethylene	127-18-4	Immediate	Immediate	High	1.38	Pass	Pass
Tetrahydrofuran	109-99-9	Immediate	Immediate	32.8	0.44	Pass	Pass

Note: "Immediate" means less than 10 minutes. "ND" means none detected during the 480 minute test.
"N/A" means not attained during the 480 minute test

Indicates better performance

"Cool, Comfortable, Safe"

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MILLER NELSON ANALYTICAL, LLC

PENETRATION TEST REPORT

ASTM F903

MATERIAL NAME:	82GSM CHEM FABRIC	CHALLENGE CHEMICAL:	HYDROFLUORIC ACID
FABRIC LOG OR LOT NO.:	YELLOW SUIT MATERIAL		
MANUFACTURER:	XRGW Q-GARD QUANTUMWEAR C		
		RUN NO:	PERM 92/8542

TEST RESULTS		TEST 1	TEST 2	TEST 3	AVERAGE
PASS/FAIL		PASS	PASS	PASS	PASS
THICKNESS, MILS		11.5	12.0	13.0	12.2
TEMPERATURE		27	27	27	27

TEST DATE:	3-10-14	ANALYTICAL METHOD:	VISUAL
PRIOR CONDITIONING:	NONE	LEAK INDICATOR:	FILTER PAPER
CAS NO:	7664-39-3	METHOD MODIFICATION:	NONE
CHEMICAL SOURCE:	ALDRICH	**COMMENTS:**	**NO CHANGE POST TESTING**
CHEMICAL STATE:	LIQUID		
CHEMICAL CONTACT TYPE:	CONTINUOUS		
TEST PROCEDURE:	D	**NOTE:**	**AMBIENT PRESSURE FOR 60 MIN**
CONCENTRATION:	48%		
TEST DURATION:	60 MIN		

CLIENT: XHJF
TERRY OLDHAM

ANALYST Christopher Priante 3-17-14 Q.C. Stephen J. Priante 3-17-14
CHRISTOPHER J. PRIANTE DATE STEPHEN J. PRIANTE DATE

This data is derived from tests performed in accordance with ASTM F903. These tests were performed under laboratory conditions and not under actual usage conditions. Miller Nelson Analytical LLC makes no warranties concerning protection by this material and assumes no liability for use of this material with the chemicals tested. The user should determine the applicability of the conditions when assessing suitability of material for actual anticipated exposure.

PERMEATION TESTING SERVICES

TEL – 951-245-7755 FAX – 951-245-0898
E-MAIL – stevep@mnapermeations.com
31951 Corydon Road, Suite #120, Lake Elsinore, CA 92530
WEB SITE – http://www.mnapermeations.com

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MILLER NELSON ANALYTICAL, LLC

PENETRATION TEST REPORT

ASTM F903

MATERIAL NAME:	82GSM CHEM FABRIC	CHALLENGE CHEMICAL:	POTASSIUM HYDROXIDE
FABRIC LOG OR LOT NO.:	YELLOW SUIT MATERIAL		
MANUFACTURER:	XXXSX Q-GARD QUANTUMWEAR C		
		RUN NO:	PERM 92/8543

TEST RESULTS		TEST 1	TEST 2	TEST 3	AVERAGE
PASS/FAIL		PASS	PASS	PASS	PASS
THICKNESS, MILS		10.5	10.5	12.0	11.0
TEMPERATURE		27	27	27	27

TEST DATE:	3-11-14	ANALYTICAL METHOD:	VISUAL
PRIOR CONDITIONING:	NONE	LEAK INDICATOR:	FILTER PAPER
CAS NO:	1310-58-3	METHOD MODIFICATION:	NONE
CHEMICAL SOURCE:	ALDRICH	**COMMENTS:**	**NO CHANGE POST TESTING**
CHEMICAL STATE:	LIQUID		
CHEMICAL CONTACT TYPE:	CONTINUOUS		
TEST PROCEDURE:	D	**NOTE:**	**AMBIENT PRESSURE FOR 60 MIN**
CONCENTRATION:	45%		
TEST DURATION:	60 MIN		

CLIENT: SHIXX
TERRY OLDHAM

ANALYST Christopher Priante 3-17-14 Q.C. Stephen J. Priante 3-17-14

CHRISTOPHER J. PRIANTE DATE STEPHEN J. PRIANTE DATE

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MILLER NELSON ANALYTICAL, LLC

PERMEATION TEST REPORT

ASTM F 739-2012 (NORMALIZED)

MATERIAL NAME:	82GSM CHEM FABRIC	CHALLENGE CHEMICAL:	HYDROFLUORIC
FABRIC LOG OR LOT NO.:	YELLOW SUIT MATERIAL		ACID
MANUFACTURER:	PGS Q-GARD QUANTUMWEAR C	RUN NO:	PERM92/8544

TEST RESULTS		TEST 1	TEST 2	TEST 3	AVERAGE
NORMALIZED (0.1 UG/SQ CM/MIN)		>480	>480	>480	>480
BREAKTHROUGH TIME, MIN					
PERMEATION RATE STEADY		ND	ND	ND	ND
STATE MAXIMUM, UG/SQ CM/ MIN					
THICKNESS, MILS		11.5	12.5	13.0	12.3
WEIGHT, OZ/SQ YD		2.6	2.6	2.6	2.6

TEST DATE:	3-3-14	ANALYTICAL METHOD:	ELECTROCHEMICAL
PRIOR CONDITIONING:	NONE	COLLECTION SYSTEM:	OPEN LOOP
CAS NO:	7664-39-3	COLLECTION MEDIUM VOLUME:	NA
CHEMICAL SOURCE:	ALDRICH	CHEMICAL STATE:	LIQUID
CONCENTRATION:	48.0 %	CHEMICAL CONTACT TYPE	CONTINUOUS
SAMPLING FREQUENCY:	CONTINUOUS	COLLECTION MEDIUM:	AIR
MINIMUM DETECTION LIMIT:	0.02 PPM	POST TEST CONDITON:	NO CHANGE
MINIMUM DETECTABLE RATE:	0.0201 UG/SQ CM/MIN		POST TESTING
TEMPERATURE:	27 oC		
TEST DURATION:	8 HOURS		
METHOD MODIFICATION:	NONE	CLIENT:	XSXX
SPECIMEN AREA EXPOSED:	20.3 SQ. CM	CONTACT:	TERRY OLDHAM
FLOW RATE	1000 ML/MIN		

ANALYST Christopher P. Priante 3-17-14 Q.C.
CHRISTOPHER J. PRIANTE DATE

Stephen J. Priante 3-17-14
STEPHEN J. PRIANTE DATE

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MILLER NELSON ANALYTICAL, LLC

PERMEATION TEST REPORT

ASTM F739-12

MATERIAL NAME:	82GSM CHEM FABRIC	CHALLENGE CHEMICAL:	POTASSIUM
FABRIC LOG OR LOT NO.:	YELLOW SUIT MATERIAL		HYDROXIDE
MANUFACTURER:	~~XXS~~ Q-GARD QUANTUMWEAR C	RUN NO:	PERM92/8545

TEST RESULTS		TEST 1	TEST 2	TEST 3	AVERAGE
NORMALIZED (0.1 UG/SQ CM/MIN) BREAKTHROUGH TIME, MIN		>480	>480	>480	>480
PERMEATION RATE STEADY STATE MAXIMUM, UG/SQ CM/MIN		ND	ND	ND	ND
THICKNESS, MILS		11.0	13.0	14.5	12.8
WEIGHT, OZ/SQ YD		2.4	2.5	2.6	2.5

TEST DATE:	3-6-14	ANALYTICAL METHOD:	CONDUCTIVITY
PRIOR CONDITIONING:	NONE	COLLECTION SYSTEM:	OPEN LOOP
CAS NO:	1310-58-3	COLLECTION MEDIUM VOLUME:	NA
CHEMICAL SOURCE:	ALDRICH	CHEMICAL STATE:	LIQUID
CONCENTRATION:	45 %	CHEMICAL CONTACT TYPE	CONTINUOUS
SAMPLING FREQUENCY:	CONTINUOUS	COLLECTION MEDIUM:	DISTILLED WATER
MINIMUM DETECTION LIMIT:	0.025 PPM (UG/G)	POST TEST CONDITON:	NO CHANGE
MINIMUM DETECTABLE RATE:	0.023 UG/SQ CM/MIN		
TEMPERATURE:	27 oC		
TEST DURATION:	8 HOURS		
METHOD MODIFICATION:	NONE	CLIENT:	~~XSH~~
SPECIMEN AREA EXPOSED:	20.3 SQ. CM	CONTACT:	TERRY OLDHAM
FLOW RATE:	8 ML/MIN		

ANALYST _____ 3-17-14 Q.C.
CHRISTOPHER J. PRIANTE DATE

_____ 3-17-14
STEPHEN J. PRIANTE DATE

This data is derived from tests performed in accordance with ASTM F739-12. These tests were performed under laboratory conditions and not under actual usage conditions. Miller Nelson Analytical, LLC. makes no warranties concerning protection by this material and assumes no liability for use of this material with the chemicals tested. The user should determine the applicability of the conditions when assessing suitability of material for actual anticipated exposure.

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