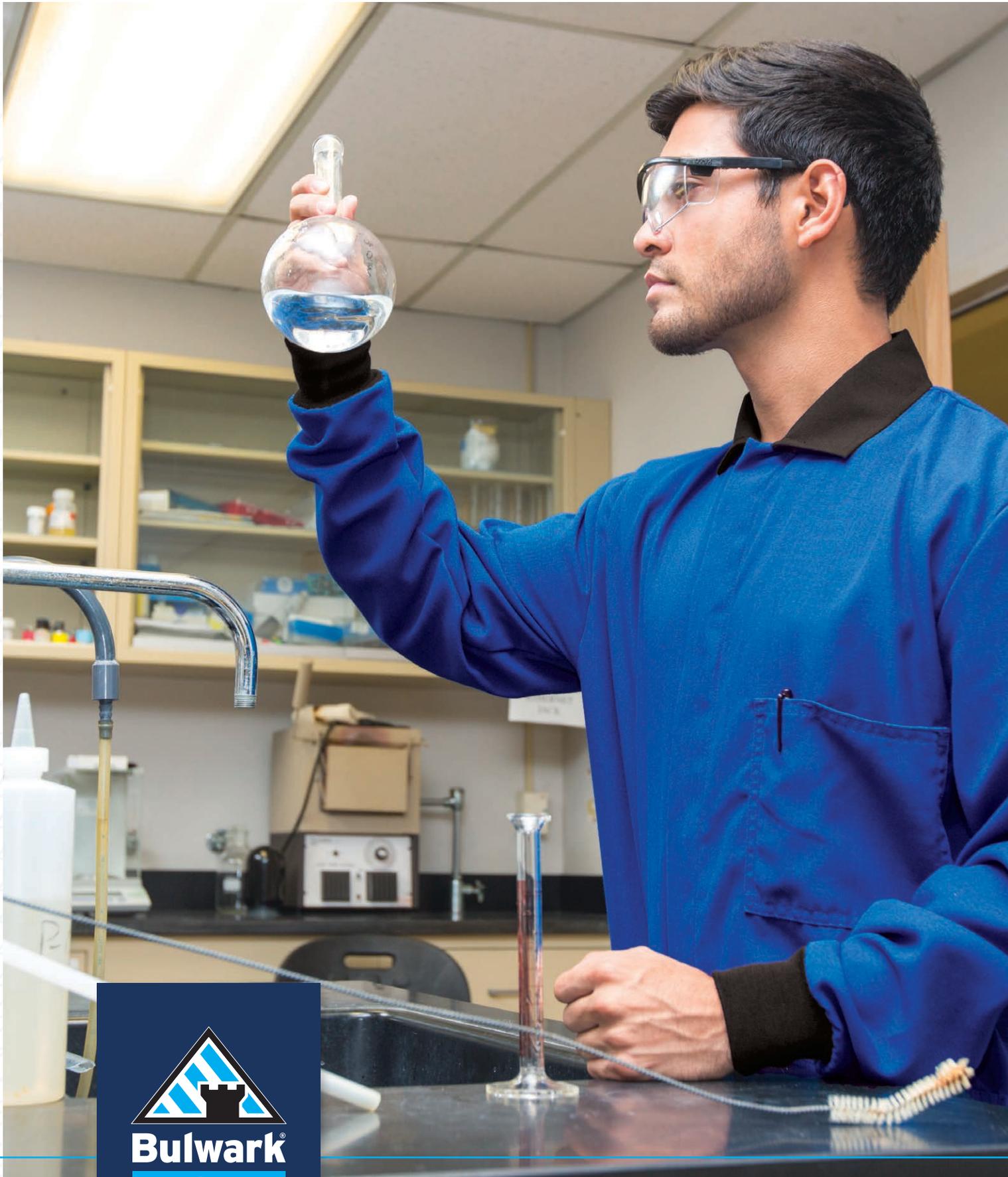




2020-2021

CHEMICAL-SPLASH

PROTECTIVE APPAREL





# CHEMICAL PROTECTION NEEDS A NEW SOLUTION.

For far too long one aspect of Chemical Protection has remained unchanged: outdated PPE. This environment of innovation demands reliable PPE that provides the ultimate in protection and comfort, for all-day wear. That's why Bulwark® CP offers breakthrough PPE designed specifically for chemical-splash protection. Regular clothing or non-protective lab coats simply won't keep lab workers protected in the case of a thermal incident or inadvertent chemical-splash, but our single and multi-hazard apparel help provide protection that fits well and is easy to wear.

Our new solution is about more than just products. Now backed by the power and innovation of Bulwark Protection, you'll receive the latest information, advice, training and guidance from our safety experts.

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## ICON GUIDE

IL-LS

### INDUSTRIAL LAUNDRY - LIGHT SOIL -

This is a less aggressive (industrial) laundering process commonly used on uniforms which are lightly soiled or made of fabrics that are not designed to withstand higher wash temperatures or harsher chemistry. In a typical light soil formula, water temperatures are usually held to a maximum of 140°F and pH to 10.5 max.

HW

**HOMEWASH** - A laundering process normally defined as washing in a residential type top- or front-loading unit followed by tumble drying. Detergents used in this process are formulated for home use and are readily available on the consumer market.

**NOTE:** For chemical protective garments use low alkalinity chemistry (500 ppm or less active alkalinity) to maximize splash repellency.



**CP 100** - Garments that provide repellency for a low level of liquid chemical splash protection. They repel many but not all acids, corrosives, oxidizers and polar organic solvents<sup>1</sup>, that typically have medium to high surface tension and medium to high polarity. Their application is only for inadvertent liquid chemical-splash of small volumes at atmospheric pressure.

1  
CAT

**CATEGORY 1 PROTECTION** - Arc-rated FR long-sleeve shirt and FR pants or FR coverall with a required minimum Arc Rating of 4 cal/cm<sup>2</sup>.



**NFPA® 2112 COMPLIANT** - Bulwark® Protection offers flame-resistant protective garments that are certified by Underwriters Laboratories to meet the requirements of NFPA® 2112 Standard on Flame Resistant Garments for Protection of Industrial Personnel Against Flash Fire, 2018 Edition. NFPA® 2113 Standard on Selection, Care, Use, and Maintenance of Flame Resistant Garments for Protection of Industrial Personnel Against Flash Fire, 2015 Edition, requires that garments cover the upper and lower body and flammable underlayers as completely as possible. Bulwark® garments meet this requirement either as a single garment such as a coverall or when worn with another certified garment such as a shirt or pants to provide both upper and lower body coverage.

### DO NOT BLEACH -

In general, the use of chlorine bleach is NOT recommended for Milliken® ShieldCSR garments as over-use can degrade the repellency performance and may cause fabric strength loss over time.

In general, the use of bleach is NOT recommended for Milliken® ShieldCXP™ garments as over-use can degrade the repellency performance and may cause fabric strength and color loss over time. Chlorine bleach will not affect the flame resistance properties of the fabric.

<sup>1</sup>See [bulwark.com/bulwark-cp](http://bulwark.com/bulwark-cp) for more information including a technical brief with a list of chemicals that have been tested.



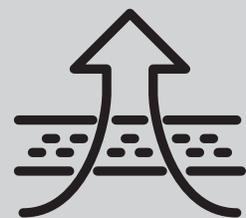
### FLAME RESISTANT

Fabric prevents clothing ignition during short-duration thermal incidents and emergency exposure to flame.



### CHEMICAL-SPLASH PROTECTION

Proprietary finishes repel small amounts of liquid chemicals that are dropped or splashed on the fabric. It resists penetration and wicking of an inadvertent, secondary liquid chemical-splash.



### LIGHTWEIGHT & BREATHABLE

This revolutionary fabric is also lightweight and breathable so it can be used as daily wear rather than task-based/as-needed protection.

# MULTI-HAZARD PROTECTION



## WHY CHEMICAL-SPLASH PROTECTION?

The types of liquids for which chemical-splash fabric is effective are water-borne chemicals and organic solvents with

medium to high surface tension and medium to high polarity. CP fabric is not as effective with chemicals that have medium to low surface tension and medium to low polarity. The user should check the properties of their liquids and test with Bulwark CP fabric to be sure the fabric works properly.



100% POLY  
WITH MILLIKEN® SHIELDCSR™

POLY/COTTON

Experiment comparing ShieldCSR™ to poly/cotton when exposed to a piranha solution (3 parts Sulfuric Acid / 1 part Hydrogen Peroxide). The solution pools on the ShieldCSR™ without penetration while it quickly burns through the poly/cotton.

## FOR WHAT LABORATORIES IS THE BULWARK® CP LAB COAT WELL SUITED?

Laboratories that have water-borne chemical hazards, without flammable or combustible liquids, will find this lab coat particularly beneficial. Water-borne chemistry can include: acids, bases, oxidizers and polar organic solvents. The types of labs working with chemical-splash hazards can include:

PHYSICS

ENGINEERING

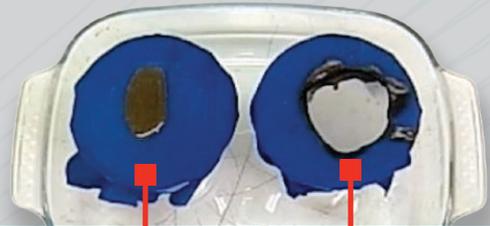
LIFE SCIENCES

MEDICAL LABORATORIES



## WHY FLAME RESISTANT PROTECTION?

Although, flame resistant lab coats are available in more than one FR-fabric type, those also made with chemical protection are particularly well suited for the chemical-splash environment. Our FR/CP fabrics offer excellent flash-fire protection, as well as the ability to resist degradation from chemical contact, such as exposure to many acids, corrosives, oxidizers and reducers.



NOMEX® IIIA WITH SHIELDSCP™

COMMON FR  
LAB COAT FABRIC

Experiment comparing a swatch of Nomex® IIIA with ShieldSCP™ to a common FR lab coat fabric when exposed to a Piranha Solution (3 parts Sulfuric Acid / 1 part Hydrogen Peroxide). The solution pools on the fabric with ShieldSCP™, without penetration, while it quickly burns through the other.

## FOR WHAT INDUSTRIES IS BULWARK® FR/CP PROTECTIVE APPAREL WELL SUITED?

Industries that run the risk of flash fire, electric arc flash and/or liquid chemical hazards would benefit from the use of Bulwark® FR/CP protective apparel. Liquid chemistry products can include: acids, bases, oxidizers, pharmaceuticals, agriculture products, cleaners, coating, paints and beyond. Additionally, the hazards of flash fire and chemical-splash can be present in occupations that require working with:

UTILITY EQUIPMENT

FOOD PROCESSING

BATTERIES

MEDICAL LABORATORIES

MACHINERY AND  
TRANSPORTATION

LABORATORY CHEMICALS

AGRICULTURE PRODUCTS  
AND FERTILIZERS

# INTRODUCING THE ALL-NEW BULWARK® CP LAB COATS

The next step in the evolution of lab coat protection. These lightweight chemical-splash protection lab coats repel small amounts of liquid chemicals that are either dropped or splashed on the fabric, resisting penetration and wicking of an inadvertent, secondary liquid chemical-splash.



LIGHTWEIGHT

CHEMICAL-SPLASH

PROTECTION (CP) LAB COAT



**352C**

Men's (Reg) XS-3XL.

Snap-front closure. Lay flat collar. Rib knit cuffs for better fit at wrists. Splash-resistant pass-throughs for easy inner pocket access. Pockets include one chest pocket on left chest with pencil stall and two large lower front pockets with flaps.

**Fabric:** 5.2 oz. 100% Polyester Poplin Weave with Miliken® ShieldCSR™

**Protection:** Inadvertent liquid chemical-splashes.

NOT FLAME RESISTANT.

**Color:** White (WH)

\*Do NOT bleach



MIDWEIGHT

CHEMICAL-SPLASH

PROTECTION (CP) LAB COAT



**378C**

Men's (Reg) XS-3XL.

Snap-front closure. Lay flat collar with lapel. Hemmed sleeve opening. Splash-resistant pass-throughs for easy inner pocket access. Pockets include one welt pocket on left chest and two large lower front pockets with flaps.

**Fabric:** 7.8 oz. 100% Polyester Twill Weave with Miliken® ShieldCSR™

**Protection:** Inadvertent liquid chemical-splashes.

NOT FLAME RESISTANT.

**Color:** White (WH)

\*Do NOT bleach

# NEW DUAL-HAZARD

# BULWARK® FLAME RESISTANT (FR) /

# CHEMICAL-SPLASH PROTECTION (CP)

These FR/CP garments bring together the latest innovations in chemical protection safety to protect wearers against multiple hazards. Flame resistant fabric prevents clothing ignition during short-duration thermal incidents and emergency exposure to flame. FR/CP garments also repel small amounts of liquid chemicals that are either dropped or splashed on the fabric, resisting penetration and wicking of an inadvertent, secondary liquid chemical-splash. They are also lightweight, breathable and comfortable to wear.

## MEN'S

## FLAME RESISTANT (FR) /

## CHEMICAL-SPLASH

## PROTECTION (CP) LAB COAT



### KNR2

Men's (Reg) S-4XL.  
NFPA® 2112 Compliant

Concealed snap-front closure. Black lay flat collar for easy recognition as a CP lab coat. FR-only knit cuffs - safer than typical open cuff. Splash-resistant pass-throughs for easy inner pocket access. Pockets include one two-needle top-stitched chest pocket with pencil stall and two two-needle top-stitched lower pockets with flaps.

**Fabric:** Flame-resistant, 4.5 oz. (150 g/m<sup>2</sup>) Nomex® IIIA (93% Nomex® Aramid / 5% Kevlar® Aramid / 2% Other Fiber) with Westex® ShieldCXP™

**Protection:** Short-duration thermal hazards and inadvertent liquid chemical splashes. Arc Rating ATPV 5.6 calories/cm<sup>2</sup>.

**Color:** Royal Blue (RB)

\*Do NOT bleach



**WOMEN'S  
FLAME RESISTANT (FR) /  
CHEMICAL-SPLASH  
PROTECTION (CP) LAB COAT**



### KNR3

Women's (Reg) XS-2XL.  
NFPA® 2112 Compliant

Concealed snap-front closure. Black lay flat collar for easy recognition as a CP lab coat. FR-only knit cuffs - safer than typical open cuff. Splash-resistant pass-throughs for easy inner pocket access. Pockets include one two-needle top-stitched chest pocket with pencil stall and two two-needle top-stitched lower pockets with flaps. Tailored fit specifically for women.

**Fabric:** Flame-resistant, 4.5 oz. (150 g/m<sup>2</sup>) Nomex® IIIA (93% Nomex® Aramid / 5% Kevlar® Aramid / 2% Other Fiber) with Westex® ShieldCXP™

**Protection:** Short-duration thermal hazards and inadvertent liquid chemical splashes.  
Arc Rating ATPV 5.6 calories/cm<sup>2</sup>.

**Color:** Royal Blue (RB)

\*Do NOT bleach



## FLAME RESISTANT (FR) / CHEMICAL-SPLASH PROTECTION (CP) COVERALL



### 1064

(Reg) XS-5XL. (Long) XS-5XL.  
NFPA® 2112 Compliant

Black stand up collar with concealed snap at neck. Action back. Two-way, concealed, Nomex® tape, brass, break-away zipper. Pleated elastic waist. Snapped wrist closure. Pockets include splash-resistant side pass-through with snap closure for easy inner pocket access, two front inset pockets (left chest pocket has pencil stall), two rear patch pockets, and two double stitched chest pockets with snap flaps.

**Fabric:** Flame-resistant, 4.5 oz. (150 g/m<sup>2</sup>) Nomex® IIIA (93% Nomex® Aramid / 5% Kevlar® Aramid / 2% Other Fiber) with Westex® ShieldCXP™

**Protection:** Short-duration thermal hazards and inadvertent liquid chemical-splashes. Arc Rating ATPV 5.6 calories/cm<sup>2</sup>

**Colors:** Navy (NV), Royal Blue (RB)

\*Do NOT bleach

**GREAT FOR USE IN INDUSTRIAL &  
MANUFACTURING ENVIRONMENTS!**

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## SIZING

Refer to [Bulwark.com](http://Bulwark.com) for fit charts.

## PRODUCT GUARANTEE

### BULWARK® CP GUARANTEE

All Bulwark® branded garments meet the performance requirements of the specifications and standards as indicated on the garment labels and in our product literature. The chemical-resistant properties of Bulwark CP® fabrics are guaranteed for fifty (50) launderings when proper care, laundry, and maintenance procedures and instructions are followed as stated in the garment care label.

### BULWARK® FRCP GUARANTEE

All Bulwark® branded garments meet the performance requirements of the specifications and standards as indicated on the garment labels and in our product literature. The flame-resistant properties of Bulwark FRCP® fabric are guaranteed for the life of the garment when proper care, laundry, and maintenance procedures and instructions are followed as stated in the garment care label. The chemical-resistant properties of Bulwark FRCP® fabric are guaranteed for fifty (50) industrial launderings when proper care, laundry, and maintenance procedures and instructions are followed as stated in the garment care label.

## LEGAL

Bulwark (a brand of VF Imagewear, Inc.) is a registered trademark of Imagewear Apparel Corporation. Nomex is a registered trademark under E.I. duPont de Nemours and Company. NFPA is a registered trademark of National Fire Protection Association. UL is a registered trademark of Underwriters Laboratories. ShieldCXR and ShieldCSR are registered trademarks of Milliken.

