



## This presentation is for informational purposes only

Customers of Bulwark Protective Brands are solely responsible for conducting their own Hazard Risk Assessment to identify safety hazards in their work environment.

Customers of Bulwark Protective Brands are solely responsible for selecting appropriate garments and protective gear for their employees and ensuring wearers use the garments and protective gear properly and in conjunction with appropriate gloves and footwear. Because working conditions and other factors may vary, Bulwark Protective Apparel does not make any representation that these garments and protective gear will protect wearers from injury.



# Welcome to our “Town Hall”

**Premise** – We’ve received a lot of questions around FRCP lab coats and coveralls. I did my best to present the questions as they came to us.

## Some definitions

- FR/CP – flame resistant/chemical protective
- Flame resistant – self extinguishes, does not melt, drip or add to the injury
- CP – Chemical Protection, repels small amounts of inadvertent liquid chemical splashes at atmospheric pressure.





**How often do I need to provide PPE training for each employee?**



There is no specified timeframe for PPE training. Obviously when a new person joins the team and prior to new exposure. Retraining is performed as needed based on the employers determination.



**Do you foresee all labs requiring FR CP lab coats, versus regular lab coats, in the future?**



Any lab working with either flammable chemicals or open flame has the potential for clothing ignition. If these hazards are present, FR is needed. We've seen labs moving this direction and am hopeful it will continue.

Most labs work with hazardous chemicals and should provide some protection. So it's only logical that at some point in time an FRCP lab coat would be an obvious solution.





**I understand all employers must do a hazard assessment, BUT can you share or comment on the rule of thumb, "lab workers using more than 1 liter of flammable solvent at a time should wear an FR/CP lab coat?"**



Each lab would need to determine the amount based on their risk assessment. As an example the University of California system uses 1 Liter of a flammable solvent as their threshold for when FR protection is needed.



## Are the FR/CP lab coats Arc-resistant?



The FRCP lab coat has an arc rating but it is only 5.6 cal/cm<sup>2</sup> since it uses a lightweight Nomex IIIA base fabric. Flash fire and inadvertent chemical splash are the primary hazards it is designed to help protect against so the arc rating was not a consideration for its use.



## Why do the lab coats have to be blue in color?



The FRCP lab coats are Royal Blue, which makes them identifiably different than common lab coats which are typically white. They also have a black collar and an FRCP logo on the back to differentiate them from Royal Blue FR only lab coats.

There is a CP only version that comes in white versus Royal Blue. It does not have FR properties and should only be used when there isn't a garment ignition hazard.





## What PPE should be used when working with polar organic solvents?



- Most lab managers tell us they want their workers to wear safety goggles, protective gloves, and protective lab coats for sure. Additional protection like face shields, breathing equipment, fume hoods, glove boxes, benchtop shields, or full barrier suits may be warranted depending the chemicals being used.
- Ensure fire extinguishers, safety showers, eyewash fountains, first aid kits, fire blankets are easily accessible.



**Can FR resist a chemical spill at least to some extent?**



Not really. In fact the standard FR fabrics are typically designed to provide some ability to wick moisture and are air permeability for hot outdoor applications. Some FR fibers, like Nomex, have good resistance to degradation from some chemical exposures but do not repel.



## Can repairs be made to your FRCP?



Reasonable repairs can be made but they must be made using the same materials and in the same construction manner. Lab coats with large holes, tears or extensive damage should be replaced.



**What lab coats are suitable for anti-static / working with the gassing of aerosols?**



A specialized lab coat would be needed, and potentially other grounding devices depending on the severity of the hazard. The FR & FRCP lab coats made by us are not for use in environments needing static free garments.



## What happens to my lab coat's FRCP if it gets wet?



The lab coat can be laundered so getting wet, with water, is not an issue. If it's exposed to an inadvertent splash with water the water will easily repel off the coat. If it is exposed to large amounts under pressure it can get wet. In this situation the coat should be exchanged for a dry FRCP coat until it dries, as the repellency properties are compromised in the area that is wet.





## How do I wash a pathogen exposed lab coat? Bleach?



The coat is not designed for pathogen exposure. Bleach should not be used on the garment as it can negatively affect the long-term performance of the garment. Once exposed the coat should be removed and quarantined until someone specialized in pathogen clean up and removal should be contacted.



**Are the knit cuffs both FR and CP?**



NO – the cuffs are only FR as the CP technology does not work on stretchable knit fabric. When working with hazardous chemicals the wearer should be wearing the appropriate protective gloves under or over the cuffs.



## Is the coat washable without harming the properties?



Yes – the flame resistant properties cannot be washed away when the laundry instructions are followed. The chemical repellency is guaranteed for up to 50 industrial launderings. In fact the repellency properties for many of the test chemicals remain in tact up to 100 launderings. Lower wash temperatures have been shown to extend the life beyond 50 launderings.



**I use acetone regularly and it's one of the chemicals the coat does not repel.**



That's correct, but a standard lab coat doesn't repel Acetone or any of the other dangerous acids and corrosives. Plus skin contact with Acetone by itself is not particularly dangerous. When working around non-polar organic solvents additional splash protection may be needed, just like when wearing a standard lab coat.



# FRCP vs Separate Chemical Protection

## **Separate Protection:**

- Requires a Decision Point
- Often Unused - Leaving workers unprotected
- Bulky and Uncomfortable
- Possibly not FR





**Thank you**



**Questions, Comments?**